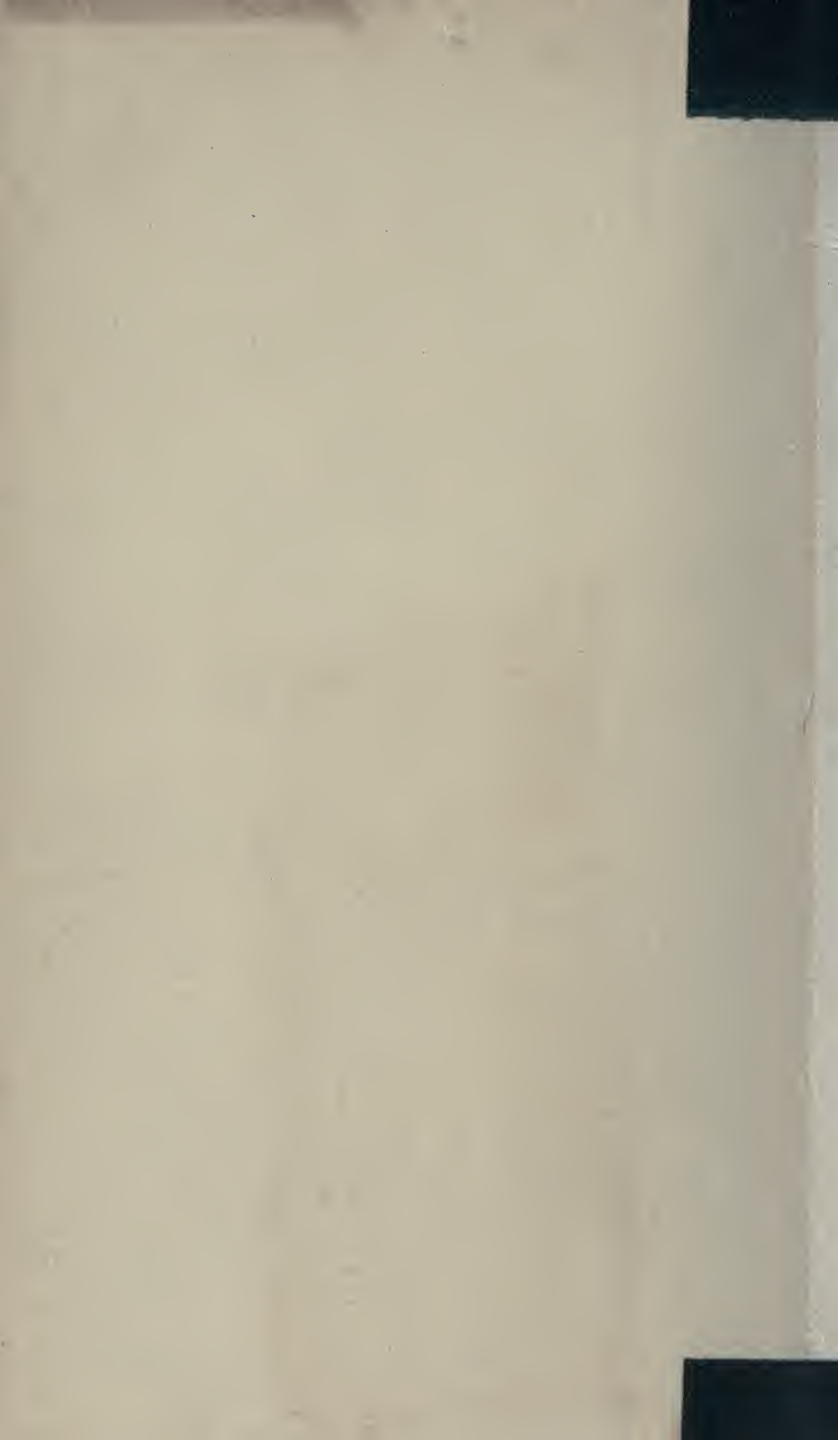


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THE COMPLETE WORKS

OF

JOHN RUSKIN

VOLUME XXI



ART AND PLEASURES OF ENGLAND

DEUCALION



The Complete Works of
John Ruskin

Art and Monuments of England
Description
Sketches in Florence
By Henry & John
Eaton & Robert

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THE KELMSCOTT SOCIETY
PUBLISHERS, NEW YORK.

The Complete Works of
John Ruskin

Art and Pleasures of England
Deucalion
Mornings in Florence
St. Mark's Rest
Laws of Fésolé



THE KELMSCOTT SOCIETY
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THE ART OF ENGLAND
AND THE
PLEASURES OF ENGLAND

LECTURES GIVEN IN OXFORD
IN 1883—1885.

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THE ART OF ENGLAND.

LECTURE I.

REALISTIC SCHOOLS OF PAINTING.

D. G. ROSSETTI AND W. HOLMAN HUNT.

Delivered 9th March, 1883.

1. I AM well assured that this audience is too kind, and too sympathetic, to wish me to enlarge on the mingled feelings of fear and thankfulness, with which I find myself once again permitted to enter on the duties in which I am conscious that before I fell short in too many ways; and in which I only have ventured to ask, and to accept, your farther trust, in the hope of being able to bring to some of their intended conclusions, things not, in the nature of them, it seems to me, beyond what yet remains of an old man's energy; but, before, too eagerly begun, and too irregularly followed. And indeed I am partly under the impression, both in gratitude and regret, that Professor Richmond's resignation, however justly motivated by his wish to pursue with uninterrupted thought the career opened to him in his profession, had partly also for its reason the courtesy of concession to his father's old friend; and his own feeling that while yet I was able to be of service in advancing the branches of elementary art with which I was specially acquainted, it was best that I should make the attempt on lines already opened, and with the aid of old friends. I am now alike comforted in having left you, and encouraged in return; for on all grounds it was most desirable that to the imperfect, and yet in many points

new and untried code of practice which I had instituted, the foundations of higher study should have been added by Mr. Richmond, in connection with the methods of art-education recognized in the Academies of Europe. And although I have not yet been able to consult with him on the subject, I trust that no interruption of the courses of figure study, thus established, may be involved in the completion, for what it is worth, of the system of subordinate exercise in natural history and landscape, indicated in the schools to which at present, for convenience' sake, my name is attached; but which, if they indeed deserve encouragement, will, I hope, receive it ultimately, as presenting to the beginner the first aspects of art, in the widest, because the humblest, relation to those of divinely organized and animated Nature.

2. The immediate task I propose to myself is to make serviceable, by all the illustration I can give them, the now unequaled collection possessed by the Oxford schools of Turner drawings and sketches, completed as it has been by the kindness of the Trustees of the National Gallery at the intercession of Prince Leopold; and furnishing the means of progress in the study of landscape such as the great painter himself only conceived the scope of toward the closing period of his life. At the opening of next term, I hope, with Mr. Macdonald's assistance, to have drawn up a little synopsis of the elementary exercises which in my earlier books have been recommended for practice in Landscape,—a subject which, if you look back to the courses of my lectures here, you will find almost affectedly neglected, just because it was my personal province. Other matters under deliberation, till I get them either done, or determined, I have no mind to talk of; but to-day, and in the three lectures which I hope to give in the course of the summer term, I wish to render such account as is possible to me of the vivid phase into which I find our English art in general to have developed since first I knew it: and, though perhaps not without passing deprecation of some of its tendencies, to rejoice with you unqualifiedly in the honor which may most justly be rendered

to the leaders, whether passed away or yet present with us, of England's Modern Painters.

3. I may be permitted, in the reverence of sorrow, to speak first of my much loved friend, Gabriel Rossetti. But, in justice, no less than in the kindness due to death, I believe his name should be placed first on the list of men, within my own range of knowledge, who have raised and changed the spirit of modern Art: raised, in absolute attainment; changed, in direction of temper. Rossetti added to the before accepted systems of color in painting, one based on the principles of manuscript illumination, which permits his design to rival the most beautiful qualities of painted glass, without losing either the mystery or the dignity of light and shade. And he was, as I believe it is now generally admitted, the chief intellectual force in the establishment of the modern romantic school in England.

4. Those who are acquainted with my former writings must be aware that I use the word 'romantic' always in a noble sense; meaning the habit of regarding the external and real world as a singer of Romaunts would have regarded it in the Middle Ages, and as Scott, Burns, Byron, and Tennyson have regarded it in our own times. But, as Rossetti's color was based on the former art of illumination, so his romance was based on traditions of earlier and more sacred origin than those which have inspired our highest modern romantic literature. That literature has in all cases remained strongest in dealing with contemporary fact. The genius of Tennyson is at its highest in the poems of 'Maud,' 'In Memoriam,' and the 'Northern Farmer'; but that of Rossetti, as of his greatest disciple, is seen only when on pilgrimage in Palestine.

5. I trust that Mr. Holman Hunt will not think that in speaking of him as Rossetti's disciple I derogate from the respect due to his own noble and determined genius. In all living schools it chanced often that the disciple is greater than his master; and it is always the first sign of a dominant and splendid intellect, that it knows of whom to learn. Ros-

setti's great poetical genius justified my claiming for him total, and, I believe, earliest, originality in the sternly materialistic,* though deeply reverent, veracity, with which alone, of all schools of painters, this brotherhood of Englishmen has conceived the circumstances of the life of Christ. And if I had to choose one picture which represented in purity and completeness this manner of their thought, it would be Rossetti's 'Virgin in the House of St. John.'

6. But when Holman Hunt, under such impressive influence, quitting virtually forever the range of worldly subjects, to which belonged the pictures of Valentine and Sylvia, of Claudio and Isabel, and of the 'Awakening Conscience,' rose into the spiritual passion which first expressed itself in the 'Light of the World,' an instant and quite final difference was manifested between his method of conception, and that of his forerunner. To Rossetti, the Old and New Testaments were only the greatest poems he knew; and he painted scenes from them with no more actual belief in their relation to the present life and business of men than he gave also to the 'Morte d'Arthur' and the 'Vita Nuova.' But to Holman Hunt, the story of the New Testament, when once his mind entirely fastened on it, became what it was to an old Puritan, or an old Catholic of true blood,—not merely a Reality, not merely the greatest of Realities, but the only Reality. So that there is nothing in the earth for him any more that does not speak of that;—there is no course of thought nor force of skill for him, but it springs from and ends in that.

So absolutely, and so involuntarily—I use the word in its noblest meaning—is this so with him, that in all subjects which fall short in the religious element, his power also is shortened, and he does those things worst which are easiest to other men.

Beyond calculation, greater, beyond comparison, happier, than Rossetti, in this sincerity, he is distinguished also from him by a respect for physical and material truth which

* See § 31.

renders his work far more generally, far more serenely, exemplary.

7. The specialty of color-method which I have signalized in Rossetti, as founded on missal painting, is in exactly that degree conventional and unreal. Its light is not the light of sunshine itself, but of sunshine diffused through colored glass. And in object-painting he not only refused, partly through idleness, partly in the absolute want of opportunity for the study of nature involved in his choice of abode in a garret at Blackfriars,—refused, I say, the natural aid of pure landscape and sky, but willfully perverted and lacerated his powers of conception with Chinese puzzles and Japanese monsters, until his foliage looked generally fit for nothing but a fire-screen, and his landscape distances like the furniture of a Noah's Ark from the nearest toy-shop. Whereas Holman Hunt, in the very beginning of his career, fixed his mind, as a colorist, on the true representation of actual sunshine, of growing leafage, of living rock, of heavenly cloud; and his long and resolute exile, deeply on many grounds to be regretted both for himself and us, bound only closer to his heart the mighty forms and hues of God's earth and sky, and the mysteries of its appointed lights of the day and of the night—opening on the foam—"Of desolate seas, in—Sacred—lands forlorn."

8. You have, for the last ten or fifteen years, been accustomed to see among the pictures principally characteristic of the English school, a certain average number of attentive studies, both of sunshine, and the forms of lower nature, whose beauty is meant to be seen by its light. Those of Mr. Brett may be named with especial praise; and you probably will many of you remember with pleasure the study of cattle on a Highland moor in the evening by Mr. Davis, which in last year's Academy carried us out, at the end of the first room, into sudden solitude among the hills. But we forget, in the enjoyment of these new and healthy pleasures connected with painting, to whom we first owe them all. The apparently unimportant picture by Holman Hunt, 'The

'Strayed Sheep,' which—painted thirty years ago—you may perhaps have seen last autumn in the rooms of the Art Society in Bond Street, at once achieved all that can ever be done in that kind: it will not be surpassed—it is little likely to be rivaled—by the best efforts of the times to come. It showed to us, for the first time in the history of art, the absolutely faithful balances of color and shade by which actual sunshine might be transposed into a key in which the harmonies possible with material pigments should yet produce the same impressions upon the mind which were caused by the light itself.

9. And remember, all previous work whatever had been either subdued into narrow truth, or only by convention suggestive of the greater. Claude's sunshine is colorless,—only the golden haze of a quiet afternoon;—so also that of Cuypp: Turner's, so bold in conventionalism that it is credible to few of you, and offensive to many. But the pure natural green and tufted gold of the herbage in the hollow of that little sea-cliff must be recognized for true merely by a minute's pause of attention. Standing long before the picture, you were soothed by it, and raised into such peace as you are intended to find in the glory and the stillness of summer, possessing all things.

10. I cannot say of this power of true sunshine, the least thing that I would. Often it is said to me by kindly readers, that I have taught them to see what they had not seen: and yet never—in all the many volumes of effort—have I been able to tell them my own feelings about what I myself see. You may suppose that I have been all this time trying to express my personal feelings about Nature. No; not a whit. I soon found I could not, and did not try to. All my writing is only the effort to distinguish what is constantly, and to all men, lovable, and if they will look, lovely, from what is vile or empty,—or, to well trained eyes and hearts, loathsome;—but you will never find me talking about what *I* feel, or what *I* think. I know that fresh air is more wholesome than fog, and that blue sky is more beautiful than black, to

people happily born and bred. But you will never find, except of late, and for special reasons, effort of mine to say how I am myself oppressed or comforted by such things.

11. This is partly my steady principle, and partly it is incapacity. Forms of personal feeling in this kind can only be expressed in poetry; and I am not a poet, nor in any articulate manner could I the least explain to you what a deep element of life, for me, is in the sight merely of pure sunshine on a bank of living grass.

More than any pathetic music,—yet I love music,—more than any artful color—and yet I love color,—more than other merely material thing visible to these old eyes, in earth or sky. It is so, I believe, with many of you also,—with many more than know it of themselves; and this picture, were it only the first that cast true sunshine on the grass, would have been in that virtue sacred: but in its deeper meaning, it is, actually, the first of Hunt's sacred paintings—the first in which, for those who can read, the substance of the conviction and the teaching of his after life is written, though not distinctly told till afterwards in the symbolic picture of 'The Scapegoat.' "All we like sheep have gone astray, we have turned every one to his own way, and the Lord hath laid on Him the iniquity of us all."

12. None of you, who have the least acquaintance with the general tenor of my own teaching, will suspect in me any bias towards the doctrine of vicarious Sacrifice, as it is taught by the modern Evangelical Preacher. But the great mystery of the idea of Sacrifice itself, which has been manifested as one united and solemn instinct by all thoughtful and affectionate races, since the wide world became peopled, is founded on the secret truth of benevolent energy which all men who have tried to gain it have learned—that you cannot save men from death but by facing it for them, nor from sin but by resisting it for them. It is, on the contrary, the favorite, and the worst falsehood of modern infidel morality, that you serve your fellow-creatures best by getting a percentage out of their pockets, and will best provide for starving multi-

tudes by regaling yourselves. Some day or other—probably now very soon—too probably by heavy afflictions of the State, we shall be taught that it is not so; and that all the true good and glory even of this world—not to speak of any that is to come, must be bought still, as it always has been, with our toil, and with our tears. That is the final doctrine, the inevitable one, not of Christianity only, but of all Heroic Faith and Heroic Being; and the first trial questions of a true soul to itself must always be,—Have I a religion, have I a country, have I a love, that I am ready to die for?

13. That is the Doctrine of Sacrifice; the faith in which Isaac was bound, in which Iphigenia died, in which the great army of martyrs have suffered, and by which all victories in the cause of justice and happiness have been gained by the men who became more than conquerors through Him that loved them.

And yet there is a deeper and stranger sacrifice in the system of this creation than theirs. To resolute self-denial, and to adopted and accepted suffering, the reward is in the conscience sure, and in the gradual advance and predominance of good, practically and to all men visible. But what shall we say of involuntary suffering,—the misery of the poor and the simple, the agony of the helpless and the innocent, and the perishing, as it seems in vain, and the mother weeping for the children of whom she knows only that they are not?

14. I saw it lately given as one of the incontrovertible discoveries of modern science, that all our present enjoyments were only the outcome of an infinite series of pain. I do not know how far the statement fairly represented—but it announced as incapable of contradiction—this melancholy theory. If such a doctrine is indeed abroad among you, let me comfort some, at least, with its absolute denial. That in past eons, the pain suffered throughout the living universe passes calculation, is true; that it is infinite, is untrue; and that all our enjoyments are based on it, contemptibly untrue. For, on the other hand, the pleasure felt through the living

universe during past ages is incalculable also, and in higher magnitudes. Our own talents, enjoyments, and prosperities, are the outcome of that happiness with its energies, not of the death that ended them. So manifestly is this so, that all men of hitherto widest reach in natural science and logical thought have been led to fix their minds only on the innumerable paths of pleasure, and ideals of beauty, which are traced on the scroll of creation, and are no more tempted to arraign as unjust, or even lament as unfortunate, the essential equivalent of sorrow, than in the sevenfold glories of sunrise to deprecate the mingling of shadow with its light.

15. This, however, though it has always been the sentiment of the healthiest natural philosophy, has never, as you well know, been the doctrine of Christianity. That religion, as it comes to us with the promise of a kingdom in which there shall be no more Death, neither sorrow nor crying, so it has always brought with it the confession of calamity to be at present in patience of mystery endured: and not by us only, but apparently for our sakes, by the lower creatures, for whom it is inconceivable that any good should be the final goal of ill. Towards these, the one lesson we have to learn is that of pity. For all human loss and pain, there is no comfort, no interpretation worth a thought, except only in the doctrine of the Resurrection; of which doctrine, remember, it is an immutable historical fact that all the beautiful work, and all the happy existence of mankind, hitherto, has depended on, or consisted in, the hope of it.

16. The picture of which I came to-day chiefly to speak, as a symbol of that doctrine, was incomplete when I saw it, and is so still; but enough was done to constitute it the most important work of Hunt's life, as yet; and if health is granted to him for its completion, it will, both in reality and in esteem, be the greatest religious painting of our time.

You know that in the most beautiful former conceptions of the Flight into Egypt, the Holy Family were always represented as watched over, and ministered to, by attendant angels. But only the safety and peace of the Divine Child

and its mother are thought of. No sadness or wonder of meditation returns to the desolate homes of Bethlehem.

But in this English picture all the story of the escape, as of the flight, is told, in fullness of peace, and yet of compassion. The travel is in the dead of the night, the way unseen and unknown;—but, partly stooping from the starlight, and partly floating on the desert mirage, move, with the Holy Family, the glorified souls of the Innocents. Clear in celestial light, and gathered into child-garlands of gladness, they look to the Child in whom they live, and yet, for them to die. Waters of the River of Life flow before on the sands: the Christ stretches out His arms to the nearest of them;—leaning from His mother's breast.

To how many bereaved households may not this happy vision of conquered death bring, in the future, days of peace!

17. I do not care to speak of other virtues in this design than those of its majestic thought,—but you may well imagine for yourselves how the painter's quite separate and, in its skill, better than magical, power of giving effects of intense light, has aided the effort of his imagination, while the passion of his subject has developed in him a swift grace of invention which for my own part I never recognized in his design till now. I can say with deliberation that none even of the most animated groups and processions of children which constitute the loveliest sculpture of the Robbias and Donatello, can more than rival the freedom and felicity of motion, or the subtlety of harmonious line, in the happy wreath of these angel-children.

18. Of this picture I came to-day chiefly to speak, nor will I disturb the poor impression which my words can give you of it by any immediate reference to other pictures by our leading masters. But it is not, of course, among these men of splendid and isolated imagination that you can learn the modes of regarding common and familiar nature which you must be content to be governed by—in early lessons. I count myself fortunate, in renewing my effort to system-

atize these, that I can now place in the schools, or at least lend, first one and then another, some exemplary drawings by young people—youths and girls of your own age—clever ones, yes,—but not cleverer than a great many of you:—eminent only, among the young people of the present day whom I chance to know, in being extremely old-fashioned;—and—don't be spiteful when I say so,—but really they all are, all the four of them—two lads and two lassies—quite provokingly good.

19. Lads, not exactly lads perhaps—one of them is already master of the works in the ducal palace at Venice; lassies, to an old man of sixty-four, who is vexed to be beaten by them in his own business—a little older, perhaps, than most of the lassies here, but still brightly young; and, mind you, not artists, but drawing in the joy of their hearts—and the builder at Venice only in his playtime—yet, I believe you will find these, and the other drawings I speak of, more helpful, and as I just said, exemplary, than any I have yet been able to find for you; and of these, little stories are to be told, which bear much on all that I have been most earnestly trying to make you assured of, both in art and in real life.

20. Let me, however, before going farther, say, to relieve your minds from unhappily too well-grounded panic, that I have no intention of making my art lectures any more one-half sermons. All the pieces of theological or other grave talk which seemed to me a necessary part of my teaching here, have been already spoken, and printed; and are, I only fear at too great length, legible. Nor have I any more either strength or passion to spare in matters capable of dispute. I must in silent resignation leave all of you who are led by your fancy, or induced by the fashion of the time, to follow, without remonstrance on my part, those modes of studying organic beauty for which preparation must be made by depriving the animal under investigation first of its soul within, and secondly of its skin without. But it chances to-day that the merely literal histories of the drawings which I bring with

me to show you or to lend, do carry with them certain evidences of the practical force of religious feeling on the imagination, both in artists and races, such as I cannot, if I would, overlook, and such as I think you will yourselves, even those who have least sympathy with them, not without admiration recognize.

21. For a long time I used to say, in all my elementary books, that, except in a graceful and minor way, women could not paint or draw. I am beginning, lately, to bow myself to the much more delightful conviction that nobody else can. How this very serious change of mind was first induced in me it is, if not necessary, I hope pardonable, to delay you by telling.

When I was at Venice in 1876—it is almost the only thing that makes me now content in having gone there,—two English ladies, mother and daughter, were staying at the same hotel, the Europa. One day the mother sent me a pretty little note asking if I would look at the young lady's drawings. On my somewhat sulky permission, a few were sent, in which I saw there was extremely right-minded and careful work, almost totally without knowledge. I sent back a request that the young lady might be allowed to come out sketching with me. I took her over into the pretty cloister of the church of La Salute, and set her, for the first time in her life, to draw a little piece of gray marble with the sun upon it, rightly. She may have had one lesson, after that—she may have had two; the three, if there were three, seem to me, now, to have been only one! She seemed to learn everything the instant she was shown it—and ever so much more than she was taught. Next year she went away to Norway, on one of these frolics which are now-a-days necessary to girl-existence; and brought back a little pocket-book, which she thought nothing of, and which I begged of her: and have framed half a dozen leaves of it (for a loan to you, only, mind,) till you have enough copied them.

22. Of the minute drawings themselves, I need not tell you—for you will in examining them, beyond all telling,

feel, that they are exactly what we should all like to be able to do; and in the plainest and frankest manner show us how to do it—or, more modestly speaking, how, if heaven help us, it *can* be done. They can only be seen, as you see Bewick Vignettes, with a magnifying glass, and they are patterns to you therefore only of pocket-book work; but what skill is more precious to a traveler than that of minute, instantaneous, and unerring record of the things that are precisely best? For in this, the vignettes upon these leaves differ, widely as the arc of heaven, from the bitter truths of Bewick. Nothing is recorded here but what is lovely and honorable: how much there is of both in the peasant life of Norway, many an English traveler has recognized; but not always looking for the cause or enduring the conclusion, that its serene beauty, its hospitable patriotism, its peaceful courage, and its happy virtue, were dependent on facts little resembling our modern English institutions;—namely, that the Norwegian peasant “is a free man on a scanty bit of ground which he has inherited from his forefathers; that the Bible is to be found in every hut; that the schoolmaster wanders from farm to farm; that no Norwegian is confirmed who does not know how to read; and no Norwegian is allowed to marry who has not been confirmed.” I quote straightforwardly, (missing only some talk of Parliaments; but not caring otherwise how far the sentences are with my own notions, or against,) from Dr. Hartwig’s collected descriptions of the Polar world. I am not myself altogether sure of the wisdom of teaching everybody to read: but might be otherwise persuaded if here, as in Norway, every town had its public library, “while in many districts the peasants annually contribute a dollar towards a collection of books, which, under the care of the priest, are lent out to all comers.”

23. I observe that the word ‘priest’ has of late become more than ever offensive to the popular English mind; and pause only to say that in whatever capacity, or authority, the essential function of a public librarian must in every decent and rational country be educational; and consist in

the choosing, for the public, books authoritatively or essentially true, free from vain speculation or evil suggestion: and in noble history or cheerful fancy, to the utmost, entertaining.

One kind of periodical literature, it seems to me as I study these drawings, must at all events in Norway be beautifully forbidden,—the “*Journal des Modes.*” You will see evidence here that the bright fancying alike of maidens’ and matrons’ dress, capable of prettiest variation in its ornament, is yet ancestral in its form, and the white caps, in their daily purity, have the untroubled constancy of the seashell and the snow.

24. Next to these illustrations of Norwegian economy, I have brought you a drawing of deeper and less imitable power: it is by a girl of quite peculiar gift, whose life has hitherto been spent in quiet and unassuming devotion to her art, and to its subjects. I would fain have said, an English girl, but all my prejudices have lately had the ax laid to their roots one by one,—she is an American! But for twenty years she has lived with her mother among the peasants of Tuscany—under their olive avenues in summer—receiving them, as they choose to come to chat with her, in her little room by Santa Maria Novella in Florence during winter. They come to her as their loving guide, and friend, and sister in all their work, and pleasure, and—suffering. I lean on the last word.

25. For those of you who have entered into the heart of modern Italy know that there is probably no more oppressed, no more afflicted order of gracious and blessed creatures—God’s own poor, who have not yet received their consolation,—than the mountain peasantry of Tuscany and Romagna. What their minds are, and what their state, and what their treatment, those who do not know Italy may best learn, if they can bear the grief of learning it, from Ouida’s photographic story of ‘*A Village Commune*’; yet amidst all this, the sweetness of their natural character is undisturbed, their ancestral religious faith unshaken—their purity and sim-

plicity of household life uncorrupted. They may perish, by our neglect or our cruelty, but they cannot be degraded. Among them, as I have told you, this American girl has lived—from her youth up, with her (now widowed) mother, who is as eagerly, and, which is the chief matter, as sympathizingly benevolent as herself. The peculiar art gift of the younger lady is rooted in this sympathy, the gift of truest expression of feelings serene in their rightness; and a love of beauty—divided almost between the peasants and the flowers that live round Santa Maria del Fiore. This power she has trained by its limitation, severe, and in my experience unexampled, to work in light and shade only, with the pure pen line: but the total strength of her intellect and fancy being concentrated in this engraver's method, it expresses of every subject what she loves best, in simplicity undebased by any accessory of minor emotion.

She has thus drawn in faithfulest portraiture of these peasant Florentines, the loveliness of the young and the majesty of the aged: she has listened to their legends, written down their sacred songs; and illustrated, with the sanctities of mortal life, their traditions of immortality.

26. I have brought you only one drawing to-day; in the spring I trust you shall have many,—but this is enough, just now. It is drawn from memory only, but the fond memory which is as sure as sight—it is the last sleep from which she waked on this earth, of a young Florentine girl who had brought heaven down to earth, as truly as ever saint of old, while she lived, and of whom even I, who never saw her, cannot believe that she is dead. Her friend, who drew this memorial of her, wrote also the short story of her life, which I trust you will soon be able to read.*

Of this, and of the rest of these drawings, I have much to say to you; but this first and last,—that they are representations of beautiful human nature, such as could only have been found among people living in the pure Christian faith—such

* See the frontispiece to *The Story of Ida*, by "Francesca." G. Allen, 1883 (Ed. 1898).

as it was, and is, since the twelfth century; and that, although, as I said, I have returned to Oxford only to teach you technical things, this truth must close the first words, as it must be the sum of all that I may be permitted to speak to you,—that the history of the art of the Greeks is the eulogy of their virtues; and the history of Art after the fall of Greece, is that of the Obedience and the Faith of Christianity.

27. There are two points of practical importance which I must leave under your consideration. I am confirmed by Mr. Macdonald in my feeling that some kind of accurately testing examination is necessary to give consistency and efficiency to the present drawing-school. I have therefore determined to give simple certificates of merit, annually, to the students who have both passed through the required course, and at the end of three years have produced work satisfactory to Mr. Macdonald and myself. After Easter, I will at once look over such drawings as Mr. Macdonald thinks well to show me, by students who have till now complied with the rules of the school; and give certificates accordingly;—henceforward, if my health is spared, annually: and I trust that the advantage of this simple and uncompetitive examination will be felt by succeeding holders of the Slade Professorship, and in time commend itself enough to be held as a part of the examination system of the University.

Uncompetitive, always. The drawing certificate will imply no compliment, and convey no distinction. It will mean merely that the student who obtains it knows perspective, with the scientific laws of light and color in illustrating form, and has attained a certain proficiency in the management of the pencil.

28. The second point is of more importance and more difficulty.

I now see my way to making the collection of examples in the schools, quite representative of all that such a series ought to be. But there is extreme difficulty in finding any books that can be put into the hands of the home student which

may supply the place of an academy. I do not mean merely as lessons in drawing, but in the formation of taste, which, when we analyze it, means of course merely the right direction of feeling.

29. I hope that in many English households there may be found already—I trust some day there may be found wherever there are children who can enjoy them, and especially in country village schools—the three series of designs by Ludwig Richter, in illustration of the Lord's Prayer, of the Sunday, and of the Seasons. Perfect as types of easy line drawing, exquisite in ornamental composition, and refined to the utmost in ideal grace, they represent all that is simplest, purest, and happiest in human life, all that is most strengthening and comforting in nature and in religion. They are enough, in themselves, to show that whatever its errors, whatever its backslidings, this century of ours has in its heart understood and fostered, more than any former one, the joys of family affection, and of household piety.

For the former fairy of the woods, Richter has brought to you the angel on the threshold; for the former promises of distant Paradise, he has brought the perpetual blessing, "God be with you": amidst all the turmoil and speeding to and fro, and wandering of heart and eyes which perplex our paths, and betray our wills, he speaks to us in unfailing memorial of the message—"My Peace I leave with you."

LECTURE II.

MYTHIC SCHOOLS OF PAINTING.

E. BURNE-JONES AND G. F. WATTS.

Delivered 12th and 16th May, 1883.

30. IT is my purpose, in the lectures I may be permitted henceforward to give in Oxford, so to arrange them as to dispense with notes in subsequent printing; and, if I am forced for shortness, or in oversight, to leave anything insufficiently explained, to complete the passage in the next following lecture, or in any one, though after an interval, which may naturally recur to the subject. Thus the printed text will always be simply what I have read, or said; and the lectures will be more closely and easily connected than if I went always on without the care of explanatory retrospect.

31. It may have been observed, and perhaps with question of my meaning, by some readers, that in my last lecture I used the word "materialistic" * of the method of conception common to Rossetti and Hunt, with the greater number of their scholars. I used that expression to denote their peculiar tendency to feel and illustrate the relation of spiritual creatures to the substance and conditions of the visible world; more especially, the familiar, or in a sort humiliating, accidents or employments of their earthly life;—as, for instance, in the picture I referred to, Rossetti's Virgin in the house of St. John, the Madonna's being drawn at the moment when she rises to trim their lamp. In many such cases, the incidents may of course have symbolical meaning,

* Ante, § 5.

as, in the unfinished drawing by Rossetti of the Passover, which I have so long left with you, the boy Christ is watching the blood struck on the doorpost;—but the peculiar value and character of the treatment is in what I called its *material* veracity, compelling the spectator's belief, if he have the instinct of belief in him at all, in the thing's having verily happened; and not being a mere poetical fancy. If the spectator, on the contrary, have no capacity of belief in him, the use of such representation is in making him detect his own incredulity; and recognize, that in his former dreamy acceptance of the story, he had never really asked himself whether these things were so.

32. Thus, in what I believe to have been in actual time the first—though I do not claim for it the slightest lead in suggestive influence, yet the first dated example of such literal and close realization—my own endeavor in the third volume of 'Modern Painters' (ch. iv, § 16) to describe the incidents preceding the charge to Peter, I have fastened on the words, "He girt his fisher's coat about him, and did cast himself into the sea," following them out with, "Then to Peter, all wet and shivering, staring at Christ in the *sun*;" not in the least supposing or intending any symbolism either in the coat or the dripping water, or the morning sunshine; but merely and straitly striving to put the facts before the readers' eyes as positively as if he had seen the thing come to pass on Brighton beach, and an English fisherman dash through the surf of it to the feet of his captain—once dead, and now with the morning brightness on his face.

33. And you will observe farther, that this way of thinking about a thing compels, with a painter, also a certain way of painting it. I do not mean a necessarily close or minute way, but a necessarily complete, substantial, and emphatic one. The thing may be expressed with a few fierce dashes of the pencil; but it will be wholly and bodily there; it may be in the broadest and simplest terms, but nothing will be hazy or hidden, nothing clouded round, or melted away: and all that is told will be as explanatory and lucid as may

be—as of a thing examined in daylight, not dreamt of in moonlight.

34. I must delay you a little, though perhaps tiresomely, to make myself well understood on this point; for the first celebrated pictures of the pre-Raphaelite school having been extremely minute in finish, you might easily take minuteness for a specialty of the style,—but it is not so in the least. Minuteness I *do* somewhat claim, for a quality insisted upon by myself, and required in the work of my own pupils; it is—at least in landscape—Turnerian and Ruskinian—not pre-Raphaelite at all:—the pre-Raphaelism common to us all is in the frankness and honesty of the touch, not in its dimensions.

35. I think I may, once for all, explain this to you, and convince you of it, by asking you, when you next go up to London, to look at a sketch by Vandyke in the National Gallery, No. 680, purporting to represent this very scene I have been speaking of,—the miraculous draught of fishes. It is one of the too numerous brown sketches in the manner of the Flemish School, which seem to me always rather done for the sake of wiping the brush clean than of painting anything. There is no color in it, and no light and shade;—but a certain quantity of bitumen is rubbed about so as to slip more or less greasily into the shape of figures; and one of St. John's (or St. James's) legs is suddenly terminated by a wriggle of white across it, to signify that he is standing in the sea. Now that was the kind of work of the Dutch School, which I spent so many pages in vituperating throughout the first volume of 'Modern Painters'—pages, seemingly, vain to this day; for still, the brown daubs are hung in the best rooms of the National Gallery, and the loveliest Turner drawings are nailed to the wall of its cellar,—and might as well be buried at Pompeii for any use they are to the British public;—but, vain or effectless as the said chapters may be, they are altogether true in that firm statement, that these brown flourishes of the Dutch brush are by men who lived, virtually, the gentle, at court,—the simple,

in the pothouse: and could indeed paint, according to their habitation, a nobleman or a boor; but were not only incapable of conceiving, but wholly unwishful to conceive, anything, natural or supernatural, beyond the precincts of the Presence and the tavern. So that they especially failed in giving the life and beauty of little things in lower nature; and if, by good hap, they may sometimes more or less succeed in painting St. Peter the Fisher's face, never by any chance realize for you the green wave dashing over his feet.

36. Now, therefore, understand of the opposite so called 'Pre-Raphaelite,' and, much more, pre-Rubensite, society, that its primary virtue is the trying to conceive things as they are, and thinking and feeling them quite out:—believing joyfully if we may, doubting bravely, if we must,—but never mystifying, or shrinking from, or choosing for argument's sake, this or that fact; but giving every fact its own full power, and every incident and accessory its own true place,—so that, still keeping to our illustrations from Brighton or Yarmouth beach, in that most noble picture by Millais which probably most of you saw last autumn in London, the 'Caller Herrin',—picture which, as a piece of art, I should myself put highest of all yet produced by the Pre-Raphaelite school;—in that most noble picture, I say, the herrings were painted just as well as the girl, and the master was not the least afraid that, for all he could do to them, you would look at the herrings first.

37. Now then, I think I have got the manner of Pre-Raphaelite 'Realization'—'Verification'—'Materialization'—or whatever else you choose to call it, positively enough asserted and defined: and hence you will see that it follows, as a necessary consequence, that Pre-Raphaelite subjects must usually be of real persons in a solid world—not of personifications in a vaporescent one.

The persons may be spiritual, but they are individual,—St. George, himself, not the vague idea of Fortitude; St. Cecily herself, not the mere power of music. And, although spiritual, there is no attempt whatever made by this school

to indicate their immortal nature by any evanescence or obscurity of aspect. All transparent ghosts and unoutlined spectra are the work of failing imagination,—rest you sure of that. Botticelli indeed paints the Favonian breeze transparent, but never the Angel Gabriel; and in the picture I was telling you of in last lecture,*—if there *be* a fault which may jar for a moment on your feelings when you first see it, I am afraid it will be that the souls of the Innocents are a little too chubby, and one or two of them, I should say, just a dimple too fat.

38. And here I must branch for a moment from the direct course of my subject, to answer another question which may by this time have occurred to some of my hearers, how, if this school be so obstinately realistic, it can also be characterized as romantic.

When we have concluded our review of the present state of English art, we will collect the general evidence of its romance; meantime, I will say only this much, for you to think out at your leisure, that romance does not consist in the manner of representing or relating things, but in the kind of passions appealed to by the things related. The three romantic passions are those by which you are told, in Wordsworth's aphoristic line, that the life of the soul is fed.

"We live by Admiration, Hope, and Love." Admiration, meaning primarily all the forms of Hero Worship, and secondarily, the kind of feeling towards the beauty of nature, which I have attempted too feebly to analyze in the second volume of 'Modern Painters';—Hope, meaning primarily the habit of mind in which we take present pain for the sake of future pleasure, and expanding into the hope of another world;—and Love, meaning of course whatever is happiest or noblest in the life either of that world or this.

39. Indicating, thus briefly, what, though not always consciously, we mean by Romance, I proceed with our present subject of inquiry, from which I branched at the point where it had been observed that the realistic school could

* Ante, § 16, seq.

only develop its complete force in representing persons, and could not happily rest in personifications. Nevertheless, we find one of the artists whose close friendship with Rossetti, and fellowship with other members of the Pre-Raphaelite brotherhood, have more or less identified his work with theirs, yet differing from them all diametrically in this, that his essential gift and habit of thought is *in* personification, and that,—for sharp and brief instance,—had both Rossetti and he been set to illustrate the first chapter of Genesis, Rossetti would have painted either Adam or Eve; but Edward Burne-Jones, a Day of Creation.

And in this gift, he becomes a painter, neither of Divine History, nor of Divine Natural History, but of Mythology, accepted as such, and understood by its symbolic figures to represent only general truths, or abstract ideas.

40. And here I must at once pray you, as I have prayed you to remove all associations of falsehood from the word romance, so also to clear them out of your faith, when you begin the study of mythology. Never confuse a Myth with a lie,—nay, you must even be cautious how far you even permit it to be called a fable. Take the frequentest and simplest of myths for instance—that of Fortune and her wheel. Enid does not herself conceive, or in the least intend the hearers of her song to conceive, that there stands anywhere in the universe a real woman, turning an adamantine wheel whose revolutions have power over human destiny. She means only to assert, under that image, more clearly the law of Heaven's continual dealing with man,—“He hath put down the mighty from their seat, and hath exalted the humble and meek.”

41. But in the imagined symbol, or rather let me say, the visiting and visible dream, of this law, other ideas variously conducive to its clearness are gathered;—those of gradual and irresistible motion of rise and fall,—the *tide* of Fortune, as distinguished from instant change or catastrophe;—those of the connection of the fates of men with each other, the yielding and occupation of high place, the alternately appointed

and inevitable humiliation:—and the fastening, in the sight of the Ruler of Destiny, of all to the mighty axle which moves only as the axle of the world. These things are told or hinted to you, in the mythic picture, not with the impertinence and the narrowness of words, nor in any order compelling a monotonous succession of thought,—but each as you choose or chance to read it, to be rested in, or proceeded with, as you will.

42. Here then is the ground on which the Dramatic, or personal, and Mythic, or personifying, schools of our young painters, whether we find for them a general name or not, must be thought of as absolutely one—that, as the dramatic painters seek to show you the substantial truth of persons, so the mythic school seeks to teach you the spiritual truth of myths.

Truth is the vital power of the entire school,—Truth its armor—Truth its war-word; and the grotesque and wild forms of imagination which, at first sight, seem to be the reaction of a desperate fancy, and a terrified faith, against the incisive skepticism of recent science, so far from being so, are a part of that science itself: they are the results of infinitely more accurate scholarship, of infinitely more detective examination, of infinitely more just and scrupulous integrity of thought, than was possible to any artist during the two preceding centuries; and exactly as the eager and sympathetic passion of the dramatic designer now assures you of the way in which an event happened, so the scholarly and sympathetic thought of the mythic designer now assures you of the meaning, in what a fable said.

43. Much attention has lately been paid by archæologists to what they are pleased to call the development of myths: but, for the most part, with these two erroneous ideas to begin with—the first, that mythology is a temporary form of human folly, from which they are about in their own perfect wisdom to achieve our final deliverance; the second, that you may conclusively ascertain the nature of these much-to-be-lamented misapprehensions, by the types which early art

presents of them! You will find in the first section of my 'Queen of the Air,' contradiction enough of the first supercilious theory;—though not with enough clearness the counter statement, that the thoughts of all the greatest and wisest men hitherto, since the world was made, have been expressed through mythology.

44. You may find a piece of most convincing evidence on this point by noticing that whenever, by Plato, you are extricated from the play of logic, and from the debate of points dubitable or trivial; and are to be told somewhat of his inner thought, and highest moral conviction,—that instant you are cast free in the elements of fantasy, and delighted by a beautiful myth. And I believe that every master here who is interested, not merely in the history, but in the *substance*, of moral philosophy, will confirm me in saying that the direct maxims of the greatest sages of Greece, do not, in the sum of them, contain a code of ethics either so pure, or so practical, as that which may be gathered by the attentive interpretation of the myths of Pindar and Aristophanes.

45. Of the folly of the second notion above-named, held by the majority of our students of 'development' in fable,—that they can estimate the dignity of ideas by the symbols used for them, in early art; and trace the succession of thought in the human mind by the tradition of ornament in its manufactures, I have no time to-day to give any farther illustration than that long since instanced to you, the difference between the ideas conveyed by Homer's description of the shield of Achilles, (much more, Hesiod's of that of Herakles,) and the impression which we should receive from any actually contemporary Greek art. You may with confidence receive the restoration of the Homeric shield, given by Mr. A. Murray in his history of Greek sculpture, as authoritatively representing the utmost graphic skill which could at the time have been employed in the decoration of a hero's armor. But the poet describes the rude imagery as producing the effect of reality, and might praise in the same words the sculpture of Donatello or Ghiberti. And you

may rest entirely satisfied that when the surrounding realities are beautiful, the imaginations, in all distinguished human intellect, are beautiful also, and that the forms of gods and heroes were entirely noble in dream, and in contemplation, long before the clay became ductile to the hand of the potter, or the likeness of a living body possible in ivory and gold.

46. And herein you see with what a deeply interesting function the modern painter of mythology is invested. He is to place, at the service of former imagination, the art which it had not—and to realize for us, with a truth then impossible, the visions described by the wisest of men as embodying their most pious thoughts and their most exalted doctrines: not indeed attempting with any literal exactitude to follow the words of the visionary, for no man can enter literally into the mind of another, neither can any great designer refuse to obey the suggestions of his own: but only bringing the resources of accomplished art to unveil the hidden splendor of old imagination; and showing us that the forms of gods and angels which appeared in fancy to the prophets and saints of antiquity, were indeed more natural and beautiful than the black and red shadows on a Greek vase, or the dogmatic outlines of a Byzantine fresco.

47. It should be a ground of just pride to all of us here in Oxford, that out of this University came the painter whose indefatigable scholarship and exhaustless fancy have together fitted him for this task, in a degree far distinguishing him above all contemporary European designers. It is impossible for the general public to estimate the quantity of careful and investigatory reading, and the fine tact of literary discrimination, which are signified by the command now possessed by Mr. Burne-Jones over the entire range both of Northern and Greek Mythology, or the tenderness at once, and largeness, of sympathy which have enabled him to harmonize these with the loveliest traditions of Christian legend. Hitherto, there has been adversity between the schools of classic and Christian art, only in part conquered by the most

liberal-minded of artists and poets: Nicholas of Pisa accepts indeed the technical aid of antiquity, but with much loss to his Christian sentiment; Dante uses the imagery of Æschylus for the more terrible picturing of the Hell to which, in common with the theologians of his age, he condemned his instructor; but while Minos and the Furies are represented by him as still existent in Hades, there is no place in Paradise for Diana or Athena. Contrariwise, the later revival of the legends of antiquity meant scorn of those of Christendom. It is but fifty years ago that the value of the latter was again perceived and represented to us by Lord Lindsay: and it is only within the time which may be looked back to by the greater number even of my younger auditors, that the transition of Athenian mythology, through Byzantine, into Christian, has been first felt, and then traced and proved, by the penetrative scholarship of the men belonging to this Pre-Raphaelite school, chiefly Mr. Burne-Jones and Mr. William Morris,—noble collaborateurs, of whom, may I be forgiven, in passing, for betraying to you a pretty little sacredness of their private life,—that they solemnly and jovially have breakfasted together every Sunday, for many and many a year.

48. Thus far, then, I am able with security to allege to you the peculiar function of this greatly gifted and highly trained English painter; and with security also, the function of any noble myth, in the teaching, even of this practical and positive British race. But now, when for purposes of direct criticism I proceed to ask farther in what manner or with what precision of art any given myth should be presented—instantly we find ourselves involved in a group of questions and difficulties which I feel to be quite beyond the proper sphere of this Professorship. So long as we have only to deal with living creatures, or solid substances, I am able to tell you—and to show—that they are to be painted under certain optical laws which prevail in our present atmosphere; and with due respect to laws of gravity and movement which cannot be evaded in our terrestrial con-

stitution. But when we have only an idea to paint, or a symbol, I do not feel authorized to insist any longer upon these vulgar appearances, or mortal and temporal limitations. I cannot arrogantly or demonstratively define to you how the light should fall on the two sides of the nose of a Day of Creation; nor obstinately demand botanical accuracy in the graining of the wood employed for the spokes of a Wheel of Fortune. Indeed, so far from feeling justified in any such vexatious and vulgar requirements, I am under an instinctive impression that some kind of strangeness or quaintness, or even violation of probability, would be not merely admissible, but even desirable, in the delineation of a figure intended neither to represent a body, nor a spirit, neither an animal, nor a vegetable, but only an idea, or an aphorism. Let me, however, before venturing one step forward amidst the insecure snows and cloudy wreaths of the Imagination, secure your confidence in my guidance, so far as I may gain it by the assertion of one general rule of proper safeguard; that no mystery or majesty of intention can be alleged by a painter to justify him in careless or erroneous drawing of any object—so far as he chooses to represent it at all. The more license we grant to the audacity of his conception, the more careful he should be to give us no causeless ground of complaint or offense: while, in the degree of importance and didactic value which he attaches to his parable, will be the strictness of his duty to allow no faults, by any care avoidable, to disturb the spectator's attention, or provoke his criticism.

49. I cannot but to this day remember, partly with amusement, partly in vexed humiliation, the simplicity with which I brought out, one evening when the sculptor Marochetti was dining with us at Denmark Hill, some of the then but little known drawings of Rossetti, for his instruction in the beauties of Pre-Raphaelitism.

You may see with the slightest glance at the statue of Cœur de Lion, (the only really interesting piece of historical sculpture we have hitherto given to our City populace), that

Marochetti was not only trained to perfectness of knowledge and perception in the structure of the human body, but had also peculiar delight in the harmonies of line which express its easy and powerful motion. Knowing a little more, both of men and things, now, than I did on the evening in question, I too clearly apprehend that the violently variegated segments and angular anatomies of Lancelot and Guenevere at the grave of King Arthur must have produced on the bronze-minded sculptor simply the effect of a knave of Clubs and Queen of Diamonds; and that the Italian master, in his polite confession of inability to recognize the virtues of Rossetti, cannot but have greatly suspected the sincerity of his entertainer, in the profession of sympathy with his own.

50. No faults, then, that we can help,—this we lay down for certain law to start with; therefore, especially, no ignoble faults, of mere measurement, proportion, perspective, and the like, may be allowed to art which is by claim, learned and magistral; therefore bound to be, in terms, grammatical. And yet we are not only to allow, but even to accept gratefully, any kind of strangeness and deliberate difference from merely realistic painting, which may raise the work, not only above vulgarity, but above incredulity. For it is often by realizing it most positively that we shall render it least credible.

51. For instance, in the prettiest design of the series, by Richter, illustrating the Lord's Prayer, which I asked you in my last lecture to use for household lessons;—that of the mother giving her young children their dinner in the field which their father is sowing,—one of the pieces of the inclosing arabesque represents a little winged cherub emergent from a flower, holding out a pitcher to a bee, who stoops to drink. The species of bee is not scientifically determinable; the wings of the tiny servitor terminate rather in petals than plumes; and the unpretentious jug suggests nothing of the clay of Dresden, Sèvres, or Chelsea. You would not, I think, find your children understand the lesson in divinity better, or believe it more frankly, if the hymenopterous insect were

painted so accurately that, (to use the old method of eulogium on painting,) you could hear it buzz; and the cherub completed into the living likeness of a little boy with blue eyes and red cheeks, but of the size of a humming-bird. In this and in myriads of similar cases, it is possible to imagine from an outline what a finished picture would only provoke us to deny in contempt.

52. Again, in my opening lecture on Light and Shade, the sixth of those given in the year 1870, I traced in some completeness the range of ideas which a Greek vase-painter was in the habit of conveying by the mere opposition of dark and light in the figures and background, with the occasional use of a modifying purple. It has always been matter of surprise to me that the Greeks rested in colors so severe, and I have in several places formerly ventured to state my conviction that their sense of color was inferior to that of other races. Nevertheless, you will find that the conceptions of moral and physical truth which they were able with these narrow means to convey, are far loftier than the utmost that can be gathered from the iridescent delicacy of Chinese design, or the literally imitative dexterities of Japan.

53. Now, in both these methods, Mr. Burne-Jones has developed their applicable powers to their highest extent. His outline is the purest and quietest that is possible to the pencil: nearly all other masters accentuate falsely, or in some places, as Richter, add shadows which are more or less conventional. But an outline by Burne-Jones is as pure as the lines of engraving on an Etruscan mirror; and I placed the series of drawings from the story of Psyche in your school as faultlessly exemplary in this kind. Whether pleasing or displeasing to your taste, they are entirely masterful; and it is only by trying to copy these or other such outlines, that you will fully feel the grandeur of action in the moving hand, tranquil and swift as a hawk's flight, and never allowing a vulgar tremor, or a momentary impulse, to impair its precision, or disturb its serenity.

54. Again, though Mr. Jones has a sense of color, in its

kind, perfect, he is essentially a chiaroscuroist. Diametrically opposed to Rossetti, who could conceive in color only, he prefers subjects which can be divested of superficial attractiveness; appeal first to the intellect and the heart; and convey their lesson either through intricacies of delicate line, or in the dimness or coruscation of ominous light.

The heads of Medea and of Danae, which I placed in your schools long ago, are representative of all that you need aim at in chiaroscuro; and lately a third type of his best work, in subdued pencil light and shade, has been placed within your reach in Dr. Acland's drawing-room,—the portrait of Miss Gladstone, in which you will see the painter's best powers stimulated to their utmost, and reaching a serene depth of expression unattainable by photography, and nearly certain to be lost in finished painting.

55. For there is this perpetually increasing difficulty towards the completion of any work, that the added forces of color destroy the value of the pale and subtle tints or shades which give the nobleness to expression; so that the most powerful masters in oil painting rarely aim at expression, but only at general character: and I believe the great artist whose name I have associated with that of Burne-Jones as representing the mythic schools, Mr. G. F. Watts, has been partly restrained, and partly oppressed, by the very earnestness and extent of the study through which he has sought to make his work on all sides perfect. His constant reference to the highest examples of Greek art in form, and his sensitiveness to the qualities at once of tenderness and breadth in pencil and chalk drawing, have virtually ranked him among the painters of the great Athenian days, of whom, in the sixth book of the Laws, Plato wrote:—"You know how the intently accurate toil of a painter seems never to reach a term that satisfies him; but he must either farther touch, or soften the touches laid already, and never seems to reach a point where he has not yet some power to do more, so as to make the things he has drawn more beautiful, and more apparent. *καλλίω τε καὶ φανερώτερα.*"

56. Of course within the limits of this lecture there is no possibility of entering on the description of separate pictures; but I trust it may be hereafter my privilege to carry you back to the beginning of English historical art, when Mr. Watts first showed victorious powers of design in the competition for the frescoes of the Houses of Parliament—and thence to trace for you, in some completeness, the code of mythic and heroic story which these two artists, Mr. Watts and Mr. Burne-Jones, have gathered, and in the most deep sense written, for us.

To-day I have only brought with me a few designs by Mr. Burne-Jones, of a kind which may be to some extent well represented in photograph, and to which I shall have occasion to refer in subsequent lectures. They are not to be copied, but delighted in, by those of you who care for them,—and, under Mr. Fisher's care, I shall recommend them to be kept out of the way of those who do *not*. They include the Days of Creation; three outlines from Solomon's Song; two from the Romance of the Rose; the great one of Athena inspiring Humanity; and the story of St. George and Sabra. They will be placed in a cabinet in the upper gallery, and will by no means be intruded on your attention, but made easily accessible to your wish.

57. To justify this monastic treatment of them, I must say a few words, in conclusion, of the dislike which these designs, in common with those of Carpaccio, excite in the minds of most English people of a practical turn. A few words only, both because this lecture is already long enough, and besides, because the point in question is an extremely curious one, and by no means to be rightly given account of in a concluding sentence. The point is, that in the case of ordinary painters, however peculiar their manner, people either like them, or pass them by with a merciful contempt or condemnation, calling them stupid, or weak, or foolish, but without any expression of real disgust or dislike. But in the case of painters of the mythic schools, people either greatly like them, or they dislike in a sort of frightened and angry way, as if they had been personally aggrieved. And

the persons who feel this antipathy most strongly, are often extremely sensible and good, and of the kind one is extremely unwilling to offend; but either they are not fond of art at all, or else they admire, naturally, pictures from real life only, such as, to name an extremely characteristic example, those of the Swiss painter, Vautier, of whom I shall have much, in another place, to say in praise, but of whom, with the total school he leads, I must peremptorily assure my hearers that their manner of painting is merely part of our general modern system of scientific illustration aided by photography, and has no claim to rank with works of creative art at all: and farther, that it is essentially illiterate, and can teach you nothing but what you can easily see without the painter's trouble. Here, for instance, is a very charming little picture of a school girl going to her class, and telling her doll to be good till she comes back;—you like it, and ought to like it, because you see the same kind of incident in your own children every day; but I should say, on the whole, you had better look at the real children than the picture. Whereas, you can't every day at home see the Goddess Athena telling you yourselves to be good,—and perhaps you wouldn't altogether like to, if you could.

58. Without venturing on the rudeness of hinting that any such feeling underlies the English dislike of didactic art, I will pray you at once to check the habit of carelessly blaming the things that repel you in early or existing religious artists, and to observe, for the sum of what is to be noted respecting the four of whom I have thus far ventured to speak—Mr. Rossetti, Mr. Hunt, Mr. Jones, and Mr. Watts,—that they are, in the most solemn sense, Hero-worshippers; and that, whatever may be their faults or shortcomings, their aim has always been the brightest and the noblest possible. The more you can admire them, and the longer you read, the more your minds and hearts will be filled with the best knowledge accessible in history, and the loftiest associations conveyable by the passionate and reverent skill, of which I have told you in the 'Laws of Fésolé,' that "All great Art is Praise."

LECTURE III.

CLASSIC SCHOOLS OF PAINTING.

SIR F. LEIGHTON AND ALMA TADEMA.

Delivered 19th and 23rd May, 1883.

59. I HAD originally intended this lecture to be merely the exposition, with direct reference to painting and literature, of the single line of Horace which sums the conditions of a gentleman's education, be he rich or poor, learned or unlearned:

“Est animus tibi,—sunt mores et lingua,—fidesque,”

‘animus’ being that part of him in which he differs from an ox or an ape; ‘mores,’ the difference in him from the ‘malignum vulgus’; ‘lingua,’ eloquence, the power of expression; and ‘fides,’ fidelity, to the Master, or Mistress, or Law, that he loves. But since I came to London and saw the exhibitions, I have thought good to address my discourse more pertinently to what must at this moment chiefly interest you in them. And I must at once, and before everything, tell you the delight given me by the quite beautiful work in portraiture, with which my brother-professor Richmond leads and crowns the general splendor of the Grosvenor Gallery. I am doubly thankful that his release from labor in Oxford has enabled him to develop his special powers so nobly, and that my own return grants me the privilege of publicly expressing to him the admiration we all must feel.

60. And now in this following lecture, you must please understand at once that I use the word ‘classic,’ first in its own sense of senatorial, academic, and authoritative; but,

as a necessary consequence of that first meaning, also in the sense, more proper to our immediate subject, of Anti-Gothic; antagonist, that is to say, to the temper in which Gothic architecture was built: and not only antagonist to that form of art, but contemptuous of it; unforgiving to its faults, cold to its enthusiasms, and impatient of its absurdities. In which contempt the classic mind is certainly illiberal; and narrower than the mind of an equitable art student should be in these enlightened days:—for instance, in the British Museum, it is quite right that the British public should see the Elgin marbles to the best advantage; but not that they should be unable to see any example of the sculpture of Chartres or Wells, unless they go to the miscellaneous collection at Kensington, where Gothic saints and sinners are confounded alike among steam thrashing-machines and dynamite-proof ships of war; or to the Crystal Palace, where they are mixed up with Rimmel's perfumery.

61. For this hostility, in our present English schools, between the votaries of classic and Gothic art, there is no ground in past history, and no excuse in the nature of those arts themselves. Briefly, to-day, I would sum for you the statement of their historical continuity which you will find expanded and illustrated in my former lectures.

Only observe, for the present, you must please put Oriental Art entirely out of your heads. I shall allow myself no allusion to China, Japan, India, Assyria, or Arabia: though this restraint on myself will be all the more difficult, because, only a few weeks since, I had a delightful audience of Sir Frederick Leighton beside his Arabian fountain, and beneath his Aladdin's palace glass. Yet I shall not allude, in what I say of his designs, to any points in which they may perchance have been influenced by those enchantments. Similarly there were some charming Zobeides and Cleopatras among the variegated color fancies of Mr. Alma Tadema in the last Grosvenor; but I have nothing yet to say of *them*: it is only as a careful and learned interpreter of certain phases of Greek and Roman life, and as himself

a most accomplished painter, on long-established principles, that I name him as representatively 'classic.'

62. The summary, therefore, which I have to give you of the course of Pagan and Gothic Art must be understood as kept wholly on this side of the Bosphorus, and recognizing no farther shore beyond the Mediterranean. Thus fixing our termini, you find from the earliest times, in Greece and Italy, a multitude of artists gradually perfecting the knowledge and representation of the human body, glorified by the exercises of war. And you have, north of Greece and Italy, innumerable and incorrigibly savage nations, representing, with rude and irregular efforts, on huge stones and ice-borne bowlders, on cave-bones and forest-stocks and logs, with any manner of innocent tinting or scratching possible to them, sometimes beasts, sometimes hobgoblins—sometimes, heaven only knows what; but never attaining any skill in figure-drawing, until, whether invading or invaded, Greece and Italy teach them what a human being is like; and with that help they dream and blunder on through the centuries, achieving many fantastic and amusing things, more especially the art of rhyming, whereby they usually express their notions of things far better than by painting. Nevertheless, in due course we get a Holbein out of them; and, in the end, for best product hitherto, Sir Joshua, and the supremely Gothic Gainsborough, whose last words we may take for a beautiful reconciliation of all schools and souls who have done their work to the best of their knowledge and conscience,—“We are all going to Heaven, and Vandyke is of the company.”

63. “We are all going to Heaven.” Either that is true of men and nations, or else that they are going the other way; and the question of questions for them is—not how far from heaven they are, but whether they are going to it. Whether in Gothic or Classic Art, it is not the wisdom or the barbarism that you have to estimate—not the skill nor the rudeness;—but the *tendency*. For instance, just before coming to Oxford this time, I received by happy chance from

Florence the noble book just published at Monte Cassino, giving fac-similes of the Benedictine manuscripts there, between the tenth and thirteenth centuries. Out of it I have chosen these four magnificent letters to place in your schools—magnificent I call them, as pieces of Gothic writing; but they are still, you will find on close examination, extremely limited in range of imaginative subject. For these, and all the other letters of the alphabet in that central Benedictine school at the period in question, were composed of nothing else but packs of white dogs, jumping, with more contortion of themselves than has been contrived even by modern stage athletes, through any quantity of hoops. But I place these chosen examples in our series of lessons, not as patterns of dog-drawing, but as distinctly progressive Gothic art, leading infallibly forward—though the good monks had no notion how far,—to the Benedictine collie, in Landseer's 'Shepherd's Chief Mourner,' and the Benedictine bulldog, in Mr. Britton Rivière's 'Sympathy.'

64. On the other hand, here is an enlargement, made to about the proper scale, from a small engraving which I brought with me from Naples, of a piece of the Classic Pompeian art which has lately been so much the admiration of the æsthetic cliques of Paris and London. It purports to represent a sublimely classic cat, catching a sublimely classic chicken; and is perhaps quite as much like a cat as the white spectra of Monte Cassino are like dogs. But at a glance I can tell you,—nor will you, surely, doubt the truth of the telling,—that it is art in precipitate decadence; that no bettering or even far dragging on of its existence is possible for it; that it is the work of a nation already in the jaws of death, and of a school which is passing away in shame.

65. Remember, therefore, and write it on the very tables of your heart, that you must never, when you have to judge of character in national styles, regard them in their decadence, but always in their spring and youth. Greek art is to be studied from Homeric days to those of Marathon; Gothic, from Alfred to the Black Prince in England, from

Clovis to St. Louis in France; and the combination of both, which occurs first with absolute balance in the pulpit by Nicholas of Pisa in her baptistery, thenceforward up to Perugino and Sandro Botticelli. A period of decadence follows among all the nations of Europe, out of the ashes and embers of which the flame leaps again in Rubens and Vandyke; and so gradually glows and coruscates into the intermittent corona of indescribably various modern mind, of which in England you may, as I said, take Sir Joshua and Gainsborough for not only the topmost, but the hitherto total, representatives; total, that is to say, out of the range of landscape, and above that of satire and caricature. All that the rest can do partially, they can do perfectly. They do it, not only perfectly, but nationally; they are at once the greatest, and the Englishest, of all our school.

The Englishest—and observe also, *therefore* the greatest: take that for an universal, exceptionless law;—the largest soul of any country is altogether *its own*. Not the citizen of the world, but of his own city,—nay, for the best men, you may say, of his own village. Patriot always, provincial always, of his own crag or field always. A Liddesdale man, or a Tynedale; Angelico from the Rock of Fésòle, or Virgil from the Mantuan marsh. You dream of National unity!—you might as well strive to melt the stars down into one nugget, and stamp them small into coin with one Cæsar's face.

66. What mental qualities, especially English, you find in the painted heroes and beauties of Reynolds and Gainsborough, I can only discuss with you hereafter. But what external and corporeal qualities these masters of our masters love to paint, I must ask you to-day to consider for a few moments, under Mr. Carlyle's guidance, as well as mine, and with the analysis of 'Sartor Resartus.' Take, as types of the best work ever laid on British canvas,—types which I am sure you will without demur accept,—Sir Joshua's Age of Innocence, and Mrs. Pelham feeding chickens; Gainsborough's Mrs. Graham, divinely doing nothing, and Blue Boy similarly occupied; and, finally, Reynolds' Lord Heath-

field magnanimously and irrevocably locking up Gibraltar. Suppose, now, under the instigation of Mr. Carlyle and 'Sartor,' and under the counsel of Zeuxis and Parrhasius, we had it really in our power to bid Sir Joshua and Gainsborough paint all these over again, in the classic manner. Would you really insist on having her white frock taken off the Age of Innocence; on the Blue Boy's divesting himself of his blue; on—we may not dream of anything more classic—Mrs. Graham's taking the feathers out of her hat; and on Lord Heathfield's parting,—I dare not suggest, with his regimentals, but his orders of the Bath, or what else?

67. I own that I cannot, even myself, as I propose the alternatives, answer absolutely as a Goth, nor without some wistful leanings towards classic principle. Nevertheless, I feel confident in your general admission that the charm of all these pictures is in great degree dependent on toilette; that the fond and graceful flatteries of each master do in no small measure consist in his management of frillings and trimmings, cuffs and collarettes; and on beautiful flingings or fastenings of investiture, which can only here and there be called a *drapery*, but insists on the perfectness of the forms it conceals, and deepens their harmony by its contradiction. And although now and then, when great ladies wish to be painted as sibyls or goddesses, Sir Joshua does his best to bethink himself of Michael Angelo, and Guido, and the Lightnings, and the Auroras, and all the rest of it,—you will, I think, admit that the culminating sweetness and rightness of him are in some little Lady So-and-so, with round hat and strong shoes; and that a final separation from the Greek art which can be proud in a torso without a head, is achieved by the master who paints for you five little girls' heads, without ever a torso!

68. Thus, then, we arrive at a clearly intelligible distinction between the Gothic and Classic schools, and a clear notion also of their dependence on one another. All jesting apart,—I think you may safely take Luca della Robbia with his scholars for an exponent of their unity, to all nations.

Luca is brightly Tuscan, with the dignity of a Greek; he has English simplicity, French grace, Italian devotion,—and is, I think, delightful to the truest lovers of art in all nations, and of all ranks. The Florentine Contadina rejoices to see him above her fruit-stall in the Mercato Vecchio; and, having by chance the other day a little Nativity by him on the floor of my study (one of his frequentest designs of the Infant Christ laid on the ground, and the Madonna kneeling to Him)—having it, I say, by chance on the floor, when a fashionable little girl with her mother came to see me, the child about three years old—though there were many pretty and glittering things about the room which might have caught her eye or her fancy, the first thing, nevertheless, my little lady does, is to totter quietly up to the white Infant Christ, and kiss it.

69. Taking, then, Luca, for central between Classic and Gothic in sculpture, for central art of Florence, in painting, I show you the copies made for the St. George's Guild, of the two frescoes by Sandro Botticelli, lately bought by the French Government for the Louvre. These copies, made under the direction of Mr. C. F. Murray, while the frescoes were still untouched, are of singular value now. For in their transference to canvas for carriage much violent damage was sustained by the originals; and as, even before, they were not presentable to the satisfaction of the French public, the backgrounds were filled in with black, the broken edges cut away; and, thus repainted and maimed, they are now, disgraced and glassless, let into the wall of a stair-landing on the outside of the Louvre galleries.

You will judge for yourselves of their deservings; but for my own part I can assure you of their being quite central and classic Florentine painting, and types of the manner in which, so far as you follow the instructions given in the 'Laws of Fésole,' you will be guided to paint. Their subjects should be of special interest to us in Oxford and Cambridge, as bearing on institutions of colleges for maidens no less than bachelors. For these frescoes represent the

Florentine ideal of education for maid and bachelor,—the one baptized by the Graces for her marriage, and the other brought to the tutelage of the Great Powers of Knowledge, under a great presiding Muse, whose name you must help me to interpret; and with good help, both from maid and bachelor, I hope we shall soon be able to name, and honor, all their graces and virtues rightly.

Five out of the six Sciences and Powers on her right hand and left, I know. They are, on her left—geometry, astronomy, and music; on her right—logic and rhetoric. The third, nearest her, I do not know, and will not guess. She herself bears a mighty bow, and I could give you conjectural interpretations of her, if I chose, to any extent; but will wait until I hear what you think of her yourselves. I must leave you also to discover by whom the youth is introduced to the great conclave; but observe, that, as in the frescoes of the Spanish Chapel, before he can approach that presence he has passed through the ‘Strait Gate,’ of which the bar has fallen, and the valve is thrown outwards. This portion of the fresco, on which the most important significance of the whole depended, was cut away in the French restoration.

70. Taking now Luca and Sandro for standards of sweet consent in the feelings of either school, falling aside from them according to their likings or knowledge, you have the two evermore adverse parties, of whom Lord Lindsay speaks, as one studying the spirit, and the other the flesh: but you will find it more simply true to say that the one studies the head, and the other the body. And I think I am almost alone among recent tutors or professors, in recommending you to study both, at their best, and neither the skull of the one, nor skeleton of the other.

71. I had a special lesson, leading me to this balance, when I was in Venice, in 1880. The authorities of the Academy did me the grace of taking down my two pet pictures of St. Ursula, and putting them into a quiet room for me to copy. Now in this quiet room where I was allowed to paint, there were a series of casts from the Ægina marbles,

which I never had seen conveniently before; and so, on my right hand and left, I had, all day long, the best pre-Praxitelite Classic art, and the best Pre-Raphaelite Gothic art: and could turn to this side, or that, in an instant, to enjoy either;—which I could do, in each case, with my whole heart; only on this condition, that if I was to admire St. Ursula, it was necessary on the whole to be content with her face, and not to be too critical or curious about her elbows; but, in the *Ægina* marbles, one's principal attention had to be given to the knees and elbows, while no ardent sympathies were excited by the fixed smile upon the face.

72. Without pressing our northern cherubic principle to an extreme, it is really a true and extremely important consequence that all portraiture is essentially Gothic. You will find it stated—and with completely illustrative proof, in 'Aratra Pentelici,'—that portraiture was the destruction of *Greek* design; certain exceptions being pointed out which I do not wish you now to be encumbered with. You may understand broadly that we Goths claim portraiture altogether for our own, and contentedly leave the classic people to round their chins by rule, and fix their smiles by precedent: *we* like a little irregularity in feature, and a little caprice in humor—and with the condition of dramatic truth in passion, necessarily accept dramatic difference in feature.

73. Our English masters of portraiture must not therefore think that I have treated them with disrespect, in not naming them, in these lectures, separately from others. Portraiture is simply a necessary function of good Gothic painting, nor can any man claim pre-eminence in epic or historic art who does not first excel in that. Nevertheless, be it said in passing, that the number of excellent portraits given daily in our illustrated papers prove the skill of mere likeness-taking to be no unfrequent or particularly admirable one; and that it is to be somewhat desired that our professed portrait-painters should render their work valuable in all respects, and exemplary in its art, no less than delightful in its resemblance. The public, who are naturally in the habit of requiring rather

the felicity and swiftness of likeness than abstract excellence in painting, are always ready to forgive the impetuosity which resembles force; and the interests connected with rate of production tend also towards the encouragement of superficial execution. Whereas in a truly great school, for the reasons given in my last lecture,* it may often be inevitable, and sometimes desirable, that works of high imaginative range and faculty should be slightly traced, and without minuteness finished; but there is no excuse for imperfection in a portrait, or failure of attention to its minor accessories. I have long ago given, for one instance of perfect portraiture, Holbein's George Guysen, at Berlin, quite one of the most accomplished pictures in the world; and in my last visit to Florence none of the pictures before known in the Uffizi retained their power over me so completely as a portrait of a lady in the Tribune, which is placed as a pendant to Raphael's Fornarina, and has always been attributed to Raphael, being without doubt by some earlier and more laborious master; and, by whomsoever it may be, unrivaled in European galleries for its faultless and unaffected finish.

74. I may be permitted in this place to express my admiration of the kind of portraiture, which, without supporting its claim to public attention by the celebrity of its subjects, renders the pictures of Mr. Stacy Marks so valuable as epitomes and types of English life. No portrait of any recognized master in science could be more interesting than the gentle Professor in this year's Academy, from whom even a rebelliously superficial person like myself might be content to receive instruction in the mysteries of anatomy. Many an old traveler's remembrances were quite pathetically touched by his monumental record of the 'Three Jolly Post-boys'; and that he scarcely paints for us but in play, is our own fault. Among all the endeavors in English historical painting exhibited in recent years, quite the most conscientious, vivid, and instructive, was Mr. Marks' rendering of the interview between Lord Say and Jack Cade; and its

* Ante, § 33.

quiet sincerity was only the cause of its being passed without attention.

75. In turning now from these subjects of Gothic art to consider the classic ideal, though I do so in painful sense of transgressing the limits of my accurate knowledge, I do not feel entirely out of my element, because in some degree I claim even Sir Frederick Leighton as a kindred Goth. For, if you will overpass quickly in your minds what you remember of the treasures of Greek antiquity, you will find that, among them all, you can get no notion of what a Greek little girl was like. Matronly Junos, and tremendous Demeters, and Gorgonian Minervas, as many as you please; but for my own part, always speaking as a Goth, I had much rather have had some idea of the Spartan Helen dabbling with Castor and Pollux in the Eurotas,—none of them over ten years old. And it is with extreme gratitude, therefore, and unqualified admiration, that I find Sir Frederick condescending from the majesties of Olympus to the worship of these unappalling powers, which, heaven be thanked, are as brightly Anglo-Saxon as Hellenic; and painting for us, with a soft charm peculiarly his own, the witchcraft and the wonderfulness of childhood.

76. I have no right whatever to speak of the works of higher effort and claim, which have been the result of his acutely observant and enthusiastic study of the organism of the human body. I am indeed able to recognize his skill; but have no sympathy with the subjects that admit of its display. I am enabled, however, to show you with what integrity of application it has been gained, by his kindness in lending me for the Ruskin school two perfect early drawings, one of a lemon tree,—and another, of the same date, of a Byzantine well, which determine for you without appeal, the question respecting necessity of delineation as the first skill of a painter. Of all our present masters, Sir Frederick Leighton delights most in softly-blended colors, and his ideal of beauty is more nearly that of Correggio than any seen since Correggio's time. But you see by what precision of terminal

outline he at first restrained, and exalted, his gift of beautiful *vaghezza*.

77. Nor is the lesson one whit less sternly conveyed to you by the work of M. Alma Tadema, who differs from all the artists I have ever known, except John Lewis, in the gradual increase of technical accuracy, which attends and enhances together the expanding range of his dramatic invention; while every year he displays more varied and complex powers of minute draughtsmanship, more especially in architectural detail, wherein, somewhat priding myself as a specialty, I nevertheless receive continual lessons from him; except only in this one point,—that, with me, the translucency and glow of marble is the principal character of its substance, while with M. Tadema it is chiefly the superficial luster and veining which seem to attract him; and these, also, seen, not in the strength of southern sun, but in the cool twilight of luxurious chambers. With which insufficient, not to say degrading, choice of architectural color and shade, there is a fallacy in his classic idealism, against which, while I respectfully acknowledge his scholarship and his earnestness, it is necessary that you should be gravely and conclusively warned.

78. I said that the Greeks studied the *body* glorified by war; but much more, remember, they studied the *mind* glorified by it. It is the *μητις* 'Αχιλλῆος, not the muscular force, which the good beauty of the body itself signifies; and you may most strictly take the Homeric words describing the aspect of Achilles showing himself on the Greek rampart as representative of the total Greek ideal. Learn by heart, unforgettablely, the seven lines—

Αὐτὰρ Ἀχιλλεὺς ὤρτο Διὶ φίλος· ἀμφὶ δ' Ἀθήνη·

Ὄμοις ἰφθίμοισι βάλ' Αἰγίδα θυσσανόεσσαν·

Ἀμφὶ δέ οἱ κεφαλῇ νέφος ἔστεφε δία θεάων

Χρύσειον, ἐκ δ' αὐτῶν δαΐε φλόγα παμφανόωσαν.

Ἥνίοχοι δ' ἔκπληγῆν, ἐπεὶ ἴδον ἄκαματον πῦρ

Δεινον ὑπὲρ κεφαλῆς μεγαθύμου Πηλείωνος -

Δαϊό μενον· τὸ δ' ἔδαε θεὰ γλαυκῶπις Ἀθήνη;

which are enough to remind you of the whole context, and to assure you of the association of light and cloud, in their terrible mystery, with the truth and majesty of human form, in the Greek conception; light and cloud, whether appointed either to show or to conceal, both given by a divine spirit, according to the bearing of your own university shield, "Dominus illuminatio." In all ancient heroic subjects, you will find these two ideas of light and mystery combined; and these with height of standing—the Goddess central and high in the pediment of her temple, the hero on his chariot, or the Egyptian king colossal above his captives.

79. Now observe, that whether of Greek or Roman life, M. Alma Tadema's pictures are always in twilight—interiors, *ὑπὸ σνμμιγελί σκιᾷ*. I don't know if you saw the collection of them last year at the Grosvenor, but with that universal twilight there was also universal crouching or lolling posture,—either in fear or laziness. And the most gloomy, the most crouching, the most dastardly of all these representations of classic life, was the little picture called the Pyrrhic Dance, of which the general effect was exactly like a microscopic view of a small detachment of black-beetles, in search of a dead rat.

80. I have named to you the Achillean splendor as primary type of Greek war; but you need only glance, in your memory, for a few instants, over the habitual expressions of all the great poets, to recognize the magnificence of light, terrible or hopeful; the radiance of armor, over all the field of battle, or flaming at every gate of the city; as in the blazoned heraldry of the seven against Thebes,—or beautiful, as in the golden armor of Glaucus, down to the baser brightness for which Camilla died: remember also that the ancient Doric dance was strictly the dance of Apollo; seized again by your own mightiest poet for the chief remnant of the past in the Greece of to-day—

" You have the Pyrrhic dance as yet;
Where is the Pyrrhic phalanx gone?"

And *this* is just the piece of classic life which your nine-

teenth century fancy sets forth under its fuliginous and cantharoid disfigurement and disgrace.

I say, *your* nineteenth century fancy, for M. Alma Tadema does but represent—or rather, has haplessly got himself entangled in,—the vast vortex of recent Italian and French revolutionary rage against all that resists, or ever did resist, its license; in a word, against all priesthood and knighthood.

The Roman state, observe, in the strength of it expresses both these; the orders of chivalry do not rise out of the disciplining of the hordes of Tartar horsemen, but by the Christianizing of the Roman eques; and the noble priesthood of Western Christendom is not, in the heart of it, hieratic, but pontifical. And it is the last corruption of this Roman state, and its Bacchanalian frenzy, which M. Alma Tadema seems to hold it his heavenly mission to portray.

81. I have no mind, as I told you, to darken the healthy work I hope to lead you into by any frequent reference to antagonist influences. But it is absolutely necessary for me to-day to distinguish, once for all, what it is above everything your duty, as scholars in Oxford, to know and love—the perpetual laws of classic literature and art, the laws of the Muses, from what has of late again infected the schools of Europe under the pretense of classic study, being indeed only the continuing poison of the Renaissance, and ruled, not by the choir of the Muses, but by the spawn of the Python. And this I have been long minded to do; but am only now enabled to do completely and clearly, and beyond your doubt, by having obtained for you the evidence, unmistakable, of what remains classic from the ancient life of Italy—the ancient Etruscan life, down to this day; which is the perfection of humility, modesty, and serviceableness, as opposed to the character which remains in my mind as the total impression of the Academy and Grosvenor,—that the young people of this day desire to be painted first as proud, saying, How grand I am; next as immodest, saying, How beautiful I am; lastly as idle, saying, I am able to pay for flunkeys, and never did a stroke of work in my life.

82. Since the day of the opening of the great Manchester exhibition in 1857, every Englishman, desiring to express interest in the arts, considers it his duty to assert with Keats, that a thing of beauty is a *joy* forever. I do not know in what sense the saying was understood by the Manchester school. But this I know, that what joy may remain still for you and for your children—in the fields, the homes, and the churches of England—you must win by otherwise reading the fallacious line. A beautiful thing may exist but for a moment, as a reality;—it exists forever as a testimony. To the law and to the witness of it the nations must appeal, “in secula seculorum”; and in very deed and very truth, a thing of beauty is a *law* forever.

That is the true meaning of classic art and of classic literature;—not the license of pleasure, but the law of goodness; and if, of the two words, *καλὸς κ'ἀγαθός*, one can be left unspoken, as implied by the other, it is the first, not the last. It is written that the Creator of all things beheld them—not in that they were beautiful, but in that they were good.

83. This law of beauty may be one, for aught we know, fulfilling itself more perfectly as the years roll on; but at least it is one from which no jot shall pass. The beauty of Greece depended on the laws of Lycurgus; the beauty of Rome, on those of Numa; our own, on the laws of Christ. On all the beautiful features of men and women, throughout the ages, are written the solemnities and majesty of the law they knew, with the charity and meekness of their obedience; on all unbeautiful features are written either ignorance of the law, or the malice and insolence of their disobedience.

84. I showed you, on the occasion of my first address, a drawing of the death of a Tuscan girl,—a saint, in the full sense of that word, such as there have been, and still are among the Christian women of all nations. I bring you to-day the portrait of a Tuscan Sibyl,*—such as there have been, and still are. She herself is still living; her portrait

* See frontispiece to the *Roadside Songs of Tuscany* (Ed. 1898).

is the first drawing illustrating the book of the legends of the peasantry of Val d'Arno, which I obtained possession of in Florence last year; of which book I will now read you part of the preface, in which the authoress gives you the story of the life of this Etrurian Sibyl.

“Beatrice was the daughter of a stonemason at Melo, a little village of not very easy access on the mountain-side above Cutigliano; and her mother having died in Beatrice's infancy, she became, from early childhood, the companion and assistant of her father, accompanying him to his winter labors in the Maremma, and as she grew stronger, helping him at his work by bringing him stones for the walls and bridges which he built—carrying them balanced on her head. She had no education, in the common sense of the word, never learning even the alphabet; but she had a wonderful memory, and could sing or recite long pieces of poetry. As a girl, she used in summer to follow the sheep, with her distaff at her waist, and would fill up her hours of solitude by singing such ballads as ‘The War of St. Michael and the Dragon,’ ‘The Creation of the World, and the Fall of Man,’ or, ‘The History of San Pelegrino, son of Romano, King of Scotland:’ and now, in her old age, she knows nearly all the New Testament history, and much of the Old, in a poetical form. She was very beautiful then, they say; with curling black hair and wonderful inspired-looking eyes, and there must always have been a great charm in her voice and smile; so it is no great wonder that Matteo Bernardi, much older than herself, and owner of a fine farm at Pian degli Ontani, and of many cattle, chose rather to marry the shepherd girl who could sing so sweetly than another woman whom his family liked better, and who might perhaps have brought him more increase of worldly prosperity. On Beatrice's wedding day, according to the old custom of the country, one or two poets improvised verses suitable to the occasion; and as she listened to them, suddenly she felt in herself a new power, and began to sing the poetry which was then born in her mind, and having once begun, found it impossible to

stop, and kept on singing a great while, so that all were astonished, and her uncle, who was present, said—‘Beatrice, you have deceived me! if I had known what you were, I would have put you in a convent.’ From that time forth she was the great poetess of all that part of the country; and was sent for to sing and recite at weddings, and other festivals, for many miles around: and perhaps she might have been happy, but her husband’s sister, Barbara, who lived in the house, and who had not approved of the marriage, tried very wickedly to set her brother against his wife, and to some extent succeeded. He tried to stop her singing, which seemed to him a sort of madness, and at times he treated her with great unkindness; but sing she must, and sing she did, for it was what the Lord made her for, and she lived down all their dislike; her husband loved her in his old age, and Barbara, whom she nursed with motherly kindness through a long and most distressing illness, was her friend before she died. Beatrice is still living, at a great age now, but still retaining much of her old beauty and brilliancy, and is waited on and cared for with much affection by a pretty granddaughter bearing the same name as herself.”

85. There are just one or two points I want you to note in this biography, specially.

The girl is put, in her youth, to three kinds of noble work. She is a shepherdess, like St. Genevieve; a spinner and knitter, like Queen Bertha; chiefly and most singularly, she is put to help her father in the pontifical art of bridge-building. Gymnastic to purpose, you observe. In the last, or last but one, number of your favorite English chronicle, the proud mother says of her well-trained daughters, that there is not one who could not knock down her own father: here is a strong daughter who can *help* her father—a Grace Darling of the rivers instead of the sea.

These are the first three things to be noted of her. Next, the material of her education,—not in words, but in thoughts, and the greatest of thoughts. You continually hear that

Roman Catholics are not allowed to read the Bible. Here is a little shepherdess who has it in her heart.

Next, the time of her inspiration,—at her wedding feast; as in the beginning of her Master's ministry, at Cana. Here is right honor put upon marriage; and, in spite of the efforts made to disturb her household peace, it was entirely blessed to her in her children: nor to her alone, but to us, and to myriads with us; for her second son, Angelo, is the original of the four drawings of St. Christopher which illustrate the central poem in Miss Alexander's book;* and which are, to the best of my knowledge, the most beautiful renderings of the legend hitherto attained by religious imagination.

86. And as you dwell on these portraits of a noble Tuscan peasant, the son of a noble Christian mother—learn this farther and final distinction between the greatest art of past time, and that which has become possible now and in future.

The Greek, I said, portrayed the body and the mind of man, glorified in mortal war. But to us is given the task of holier portraiture, of the countenance and the heart of man, glorified by the peace of God.

87. Whether Francesca's book is to be eventually kept together or distributed I do not yet know. But if distributed, the drawings of St. Christopher must remain in Oxford, being, as I have said, the noblest statements I have ever seen of the unchangeable meaning of this Ford of ours, for all who pass it honestly, and do not contrive false traverse for themselves over a widened Magdalen Bridge. That ford, gentlemen, for ever,—know what you may,—hope what you may,—believe or deny what you may,—you have to pass barefoot. For it is a baptism as well as a ford, and the waves of it, as the sands, are holy. Your youthful days in this place are to you the dipping of your feet in the brim of the river, which is to be manfully stemmed by you all your days; not drifted with,—nor toyed upon. Fallen leaves enough it is strewn with, of the flowers of the forest; moraine enough it bears, of the ruin of the brave. Your

* See the *Roadside Songs of Tuscany* (Ed. 1898).

task is to *cross* it; your doom may be to go down with it, to the depths out of which there is no crying. Traverse it, staff in hand, and with loins girded, and with whatsoever law of Heaven you know, for your light. On the other side is the Promised Land, the Land of the Leal.

LECTURE IV.

FAIRY LAND.

MRS. ALLINGHAM AND KATE GREENAWAY.

Delivered 26th and 30th May, 1883.

88. WE have hitherto been considering the uses of legendary art to grown persons, and to the most learned and powerful minds. To-day I will endeavor to note with you some of the least controvertible facts respecting its uses to children; and to obtain your consent to the main general principles on which I believe it should be offered to them.

Here, however, I enter on ground where I must guard carefully against being misled by my own predilections, and in which also the questions at issue are extremely difficult, because most of them new. It is only in recent times that pictures have become familiar means of household pleasure and education: only in our own days—nay, even within the last ten years of those,—that the means of illustration by color-printing have been brought to perfection, and art as exquisite as we need desire to see it, placed, if our school-boards choose to have it so, within the command of every nursery governess.

89. Having then the color-print, the magic-lantern, the electric-light, and the—to any row of ciphers—magnifying, lens, it becomes surely very interesting to consider what we may most wisely represent to children by means so potent, so dazzling, and, if we will, so faithful. I said just now that I must guard carefully against being misled by my own predilections, because having been myself brought up principally on fairy legends, my first impulse would be to insist upon every story we tell to a child being untrue, and every

scene we paint for it, impossible. But I have been led, as often before confessed, gravely to doubt the expediency of some parts of my early training; and perhaps some day may try to divest myself wholly, for an hour, of these dangerous recollections; and prepare a lecture for you in which I will take Mr. Gradgrind on his own terms, and consider how far, making it a rule that we exhibit nothing but facts, we could decorate our pages of history and illuminate the slides of our lantern, in a manner still sufficiently attractive to childish taste. For indeed poor Louisa and her brother, kneeling to peep under the fringes of the circus-tent, are as much in search after facts as the most scientific of us all! A circus-rider, with his hoop, is as much a fact as the planet Saturn and his ring, and exemplifies a great many more laws of motion, both moral and physical; nor are any descriptions of the Valley of Diamonds, or the Lake of the Black Islands, in the 'Arabian Nights,' anything like so wonderful as the scenes of California and the Rocky Mountains which you may find described in the April Number of the 'Cornhill Magazine,' under the heading of 'Early Spring in California'; and may see represented with most sincere and passionate enthusiasm by the American landscape painter, Mr. Moran, in a survey lately published by the Government of the United States.

90. Scenes majestic as these, portrayed with mere and pure fidelity by such scientific means as I have referred to, would form a code of geographic instruction beyond all the former grasp of young people; and a source of entertainment,—I had nearly said, and most people who had not watched the minds of children carefully, might think,—inexhaustible. Much, indeed, I should myself hope from it, but by no means an infinitude of entertainment. For it is quite an inexorable law of this poor human nature of ours, that in the development of its healthy infancy, it is put by Heaven under the absolute necessity of using its imagination as well as its lungs and its legs;—that it is forced to develop its power of invention, as a bird its feathers of flight; that

no toy you can bestow will supersede the pleasure it has in fancying something that isn't there; and the most instructive histories you can compile for it of the wonders of the world will never conquer the interest of the tale which a clever child can tell itself, concerning the shipwreck of a rose-leaf in the shallows of a rivulet.

91. One of the most curious proofs of the need to children of this exercise of the inventive and believing power,—the *besoin de croire*, which precedes the *besoin d'aimer*,—you will find in the way you destroy the vitality of a toy to them, by bringing it too near the imitation of life. You never find a child make a pet of a mechanical mouse that runs about the floor—of a poodle that yelps—of a tumbler who jumps upon wires. The child falls in love with a quiet thing, with an ugly one—nay, it may be, with one, to us, totally devoid of meaning. My little—ever-so-many-times-grand—cousin, Lily, took a bit of stick with a round knob at the end of it for her doll one day;—nursed it through any number of illnesses with the most tender solicitude; and, on the deeply-important occasion of its having a new nightgown made for it, bent down her mother's head to receive the confidential and timid whisper—"Mamma, perhaps it had better have no sleeves, because, as Bibsey has no arms, she mightn't like it."

92. I must take notice here, but only in passing,—the subject being one to be followed out afterwards in studying more grave branches of art,—that the human mind in its full energy having thus the power of believing simply what it likes, the responsibilities and the fatalities attached to the effort of Faith are greater than those belonging to bodily deed, precisely in the degree of their voluntariness. A man can't always *do* what he likes, but he can always *fancy* what he likes; and he may be forced to do what he doesn't like, but he can't be forced to fancy what he doesn't like.

93. I use for the moment, the word 'to fancy' instead of 'to believe,' because the whole subject of Fidelity and Infidelity has been made a mere mess of quarrels and blunders

by our habitually forgetting that the proper power of Faith is to trust *without* evidence, not *with* evidence. You perpetually hear people say, 'I won't believe this or that unless you give me evidence of it.' Why, if you give them evidence of it, they *know* it,—they don't believe, any more. A man doesn't believe there's any danger in nitro-glycerine; at last he gets his parlor-door blown into the next street. He is then better informed on the subject, but the time for belief is past.

94. Only, observe, I don't say that you can fancy what you like, to the degree of receiving it for truth. Heaven forbid we should have a power such as that, for it would be one of voluntary madness. But we are, in the most natural and rational health, able to foster the fancy, up to the point of influencing our feelings and character in the strongest way; and for the strength of that healthy imaginative faculty, and all the blending of the good and grace, "*richiesto al vero ed al trastullo*,"* we are wholly responsible. We may cultivate it to what brightness we choose, merely by living in a quiet relation with natural objects and great and good people, past or present; and we may extinguish it to the last snuff, merely by living in town, and reading the 'Times' every morning.

"We are scarcely sufficiently conscious," says Mr. Kinglake, with his delicate precision of serenity in satire, "scarcely sufficiently conscious in England, of the great debt we owe to the *wise and watchful press which presides over the formation of our opinions*; and which brings about this splendid result, namely, that in matters of belief, the humblest of us are lifted up to the level of the most sagacious, so that really a simple Cornet in the Blues is no more likely to entertain a foolish belief about ghosts, or witchcraft, or any other supernatural topic, than the Lord High Chancellor, or the Leader of the House of Commons."

95. And thus, at the present day, for the education or the extinction of the Fancy, we are absolutely left to our choice.

* Dante, *Purg.* xiv. 93.

For its occupation, not wholly so, yet in a far greater measure than we know. Mr. Wordsworth speaks of it as only impossible to "have sight of Proteus rising from the sea," because the world is too much with us; also Mr. Kinglake, though, in another place, he calls it "a vain and heathenish longing to be fed with divine counsels from the lips of Pallas Athene,"—yet is far happier than the most scientific traveler could be in a trigonometric measurement, when he discovers that Neptune could really have seen Troy from the top of Samothrace: and I believe that we should many of us find it an extremely wholesome and useful method of treating our ordinary affairs, if before deciding, even upon very minor points of conduct admitting of prudential and conscientious debate, we were in the habit of imagining that Pallas Athene was actually in the room with us, or at least outside the window in the form of a swallow, and permitted us, on the condition always of instant obedience, to ask her advice upon the matter.

96. Here ends my necessary parenthesis, with its suspicion of preachment, for which I crave pardon, and I return to my proper subject of to-day,—the art which intends to address only childish imagination, and whose object is primarily to entertain with grace.

With grace:—I insist much on this latter word. We may allow the advocates of a material philosophy to insist that every wild-weed tradition of fairies, gnomes, and sylphs should be well plowed out of a child's mind to prepare it for the good seed of the Gospel of—*Disgrace*: but no defense can be offered for the presentation of these ideas to its mind in a form so vulgarized as to defame and pollute the masterpieces of former literature. It is perfectly easy to convince the young proselyte of science that a cobweb on the top of a thistle cannot be commanded to catch a honey-bee for him, without introducing a dance of ungainly fairies on the site of the cabstand under the Westminster clock tower, or making the Queen of them fall in love with the sentry on guard.

97. With grace, then, assuredly—and I think we may add also, with as much seriousness as an entirely fictitious subject may admit of,—seeing that it touches the border of that higher world which is not fictitious. We are all perhaps too much in the habit of thinking the scenes of burlesque in the ‘*Midsummer Night’s Dream*’ exemplary of Shakespeare’s general treatment of fairy character: we should always remember that he places the most beautiful words descriptive of virgin purity which English poetry possesses, in the mouth of the Fairy King, and that to the Lord of Fancies he intrusts the praise of the conquest of Fancy,—

“ In maiden meditation,—Fancy free.”

Still less should we forget the function of household benediction, attributed to them always by happy national superstition, and summed in the closing lines of the same play,—

“ With this field-dew consecrate,
Every fairy take his gait;
And each several chamber bless,
Through this palace, with sweet peace.”

98. With seriousness then,—but only, I repeat, such as entirely fictitious elements properly admit of. The general grace and sweetness of Scott’s moorland fairy, ‘*The White Lady*,’ failed of appeal to the general justice of public taste, because in two places he fell into the exactly opposite errors of unbecoming jest, and too far-venturing solemnity. The ducking of the Sacristan offended even his most loving readers; but it offended them chiefly for a reason of which they were in great part unconscious, that the jest is carried out in the course of the charge with which the fairy is too gravely intrusted, to protect, for Mary of Avenel, her mother’s Bible.

99. It is of course impossible, in studying questions of this kind, to avoid confusion between what is fit in literature and in art; the leading principles are the same in both, but of course much may be allowed to the narrator which is impossible or forbidden to the draughtsman. And I neces-

sarily take examples chiefly from literature, because the greatest masters of story have never disdained the playfully supernatural elements of fairy-tale, while it is extremely rare to find a good painter condescending to them,—or, I should rather say, contending with them, the task being indeed one of extreme difficulty. I believe Sir Noel Paton's pictures of the Court of Titania, and Fairy Raid, are all we possess in which the accomplished skill of painting has been devoted to fairy-subject; and my impression when I saw the former picture—the latter I grieve not yet to have seen—was that the artist intended rather to obtain leave by the closeness of ocular distance to display the exquisite power of minute delineation, which he felt in historical painting to be inapplicable, than to arrest, either in his own mind or the spectator's, even a momentary credence in the enchantment of fairy-wand and fairy-ring.

100. And within the range of other art which I can call to mind, touching on the same ground,—or rather, breathing in the same air,—it seems to me a sorrowful and somewhat unaccountable law that only grotesque or terrible fancies present themselves forcibly enough, in these admittedly fabling states of the imagination, to be noted with the pencil. For instance, without rating too highly the inventive powers of the old German outline-draughtsman, Retsch, we cannot but attribute to him a very real gift of making visibly terrible such legend as that of the ballad of Leonora, and interpreting, with a wild aspect of veracity, the passages of sorcery in 'Faust.' But the drawing which I possess by his hand, of the Genius of Poetry riding upon a swan, could not be placed in my school with any hope of deepening your impression either of the beauty of swans, or the dignity of genii.

101. You must, however, always carefully distinguish these states of gloomy fantasy, natural, though too often fatal, to men of real imagination,—the spectra which appear, whether they desire it or not,—to men like Orcagna, Dürer, Blake, and Alfred Rethel,—and dwelt upon by them, in the hope of producing some moral impression of salutary awe by

their record—as in Blake's Book of Job, in Dürer's Apocalypse, in Rethel's Death the Avenger and Death the Friend,—and more nobly in his grand design of Barbarossa entering the grave of Charlemagne;—carefully, I say, you must distinguish this natural and lofty phase of visionary terror, from the coarse delight in mere pain and crisis of danger, which, in our infidel art and literature for the young, fills our books of travel with pictures of alligators swallowing children, hippopotami upsetting canoes full of savages, bears on their hind-legs doing battle with northern navigators, avalanches burying Alpine villages, and the like, as the principal attractions of the volume; not, in the plurality of cases, without vileness of exaggeration which amounts to misleading falsehood—unless happily pushed to the point where mischief is extinguished by absurdity. In Strahan's 'Magazine for the Youth of all Ages,' for June, 1879, at page 328, you will find it related, in a story proposed for instruction in scientific natural history, that "the fugitives saw an enormous elephant cross the clearing, surrounded by ten tigers, some clinging to its back, and others keeping alongside."

102. I may in this place, I think, best introduce—though again parenthetically—the suggestion of a healthy field for the laboring scientific fancy which remains yet unexhausted, and I believe inexhaustible,—that of the fable, expanded into narrative, which gives a true account of the life of animals, supposing them to be endowed with human intelligence, directed to the interests of their animal life. I said just now that I had been brought up upon fairy legends, but I must gratefully include, under the general title of these, the stories in 'Evenings at Home' of The Transmigrations of Indur, The Discontented Squirrel, The Traveled Ant, The Cat and her Children, and Little Fido; and with these, one now quite lost, but which I am minded soon to reprint for my younger pupils—The History of a Field-Mouse, which in its pretty detail is no less amusing, and much more natural, than the town and country mice of Horace and Pope,—classic, in the best sense, though these will always be.

103. There is the more need that some true and pure examples of fable in this kind should be put within the reach of children, because the wild efforts of weak writers to increase their incomes at Christmas, and the unscrupulous encouragement of them by competing booksellers, fill our nurseries with forms of rubbish which are on the one side destructive of the meaning of all ancient tradition, and on the other, reckless of every really interesting truth in exact natural history. Only the other day, in examining the mixed contents of a somewhat capacious nursery book-case, the first volume I opened was a fairy tale in which the benevolent and moral fairy drove a "matchless pair of white cockatrices." I might take up all the time yet left for this lecture in exposing to you the mingled folly and mischief in those few words;—the pandering to the first notion of vulgar children that all glory consists in driving a matchless pair of something or other,—and the implied ignorance in which only such a book could be presented to *any* children, of the most solemn of scriptural promises to them,—“the weaned child shall lay his hand on the cockatrice’ den.”

104. And the next book I examined was a series of stories imported from Japan,* most of them simply sanguinary and loathsome, but one or two pretending to be zoological—as, for instance, that of the Battle of the Ape and the Crab, of which it is said in the introduction that “men should lay it up in their hearts, and teach it as a profitable lesson to their children.” In the opening of this profitable story, the crab plants a “persimmon seed in his garden” (the reader is not informed what manner of fruit the persimmon may be), and watches the growth of the tree which springs from it with great delight; being, we are told in another paragraph, “a simple-minded creature.”

105. I do not know whether this conception of character in the great zodiacal crustacean is supposed to be scientific or æsthetic,—but I hope that British children at the seaside are capable of inventing somewhat better stories of crabs for

* Macmillan, 1871.

themselves; and if they would farther know the foreign manners of the sidelong-pacing people, let me ask them to look at the account given by Lord George Campbell, in his 'Log Letters from the Challenger,' of his landing on the island of St. Paul, and of the manner in which the quite unsophisticated crabs of that locality succeeded first in stealing his fish-bait, and then making him lose his temper, to a degree extremely unbecoming in a British nobleman. They will not, after the perusal of that piquant—or perhaps I should rather say, pincant,—narrative, be disposed, whatever other virtues they may possess, to ascribe to the obliquitous nation that of simplicity of mind.

106. I have no time to dwell longer on the existing fallacies in the representation either of the fairy or the animal kingdoms. I must pass to the happier duty of returning thanks for the truth with which our living painters have drawn for us the lovely dynasty of little creatures, about whose reality there can be no doubt; and who are at once the most powerful of fairies, and the most amusing, if not always the most sagacious, of animals.

In my last lecture, I noted to you, though only parenthetically, the singular defect in Greek art, that it never gives you any conception of Greek children. Neither—up to the thirteenth century—does Gothic art give you any conception of Gothic children; for, until the thirteenth century, the Goth was not perfectly Christianized, and still thought only of the strength of humanity as admirable in battle or venerable in judgment, but not as dutiful in peace, nor happy in simplicity.

But from the moment when the spirit of Christianity had been entirely interpreted to the Western races, the sanctity of womanhood worshiped in the Madonna, and the sanctity of childhood in unity with that of Christ, became the light of every honest hearth, and the joy of every pure and chastened soul. Yet the traditions of art-subject, and the vices of luxury which developed themselves in the following (fourteenth) century, prevented the manifestation of this new

force in domestic life for two centuries more; and then at last in the child angels of Luca, Mino of Fesole, Luini, Angelico, Perugino, and the first days of Raphael, it expressed itself as the one pure and sacred passion which protected Christendom from the ruin of the Renaissance.

107. Nor has it since failed; and whatever disgrace or blame obscured the conception of the later Flemish and incipient English schools, the children, whether in the pictures of Rubens, Rembrandt, Vandyke, or Sir Joshua, were always beautiful. An extremely dark period indeed follows, leading to and persisting in the French Revolution, and issuing in the merciless manufacturing fury, which to-day grinds children to dust between millstones, and tears them to pieces on engine-wheels,—against which rises round us, Heaven be thanked, again the protest and the power of Christianity, restoring the fields of the quiet earth to the steps of her infancy.

108. In Germany, this protest, I believe, began with—it is at all events perfectly represented by—the Ludwig Richter I have so often named; in France, with Edward Frere, whose pictures of children are of quite immortal beauty. But in England it was long repressed by the terrible action of our wealth, compelling our painters to represent the children of the poor as in wickedness or misery. It is one of the most terrific facts in all the history of British art that Bewick never draws children but in mischief.

109. I am not able to say with whom, in Britain, the reaction first begins,—but certainly not in painting until after Wilkie, in all whose works there is not a single example of a beautiful Scottish boy or girl. I imagine in literature, we may take the 'Cotter's Saturday Night' and the 'toddlin' wee things' as the real beginning of child benediction; and I am disposed to assign in England much value to the widely felt, though little acknowledged, influence of an authoress now forgotten—Mary Russell Mitford. Her village children in the Lowlands—in the Highlands, the Lucy Grays and Alice Fells of Wordsworth—brought back to us the hues

of Fairy Land; and although long by Academic art denied or resisted, at last the charm is felt in London itself,—on pilgrimage in whose suburbs you find the Little Nells and boy David Copperfields; and in the heart of it, Kit's baby brother at Astley's, indenting his cheek with an oyster-shell to the admiration of all beholders; till at last, bursting out like one of the sweet Surrey fountains, all dazzling and pure, you have the radiance and innocence of reinstated infant divinity showered again among the flowers of English meadows by Mrs. Allingham and Kate Greenaway.

110. It has chanced strangely, that every one of the artists to whom in these lectures I wished chiefly to direct your thoughts, has been insufficiently, or even disadvantageously, represented by his work in the exhibitions of the season. But chiefly I have been disappointed in finding no drawing of the least interest by Mrs. Allingham in the room of the Old Water-color Society. And let me say in passing, that none of these new splendors and spaces of show galleries, with attached restaurants to support the cockney constitution under the trial of getting from one end of them to the other, will in the least make up to the real art-loving public for the loss of the good fellowship of our old societies, every member of which sent everything he had done best in the year into the room, for the May meetings: shone with his debited measure of admiration in his accustomed corner; supported his associates without eclipsing them; supplied his customers without impoverishing them; and was permitted to sell a picture to his patron or his friend, without paying fifty guineas commission on the business to a dealer.

111. Howsoever it may have chanced, Mrs. Allingham has nothing of importance in the water-color room; and I am even sorrowfully compelled to express my regret that she should have spent unavailing pains in finishing single heads, which are at the best uninteresting miniatures, instead of fulfilling her true gift, and doing what (in Miss Alexander's words) 'the Lord made her for'—in representing the gesture, character, and humor of charming children in country

landscapes. Her 'Tea Party,' in last year's exhibition, with the little girl giving her doll its bread and milk, and taking care that she supped it with propriety, may be named as a most lovely example of her feeling and her art; and the drawing which some years ago riveted, and ever since has retained, the public admiration,—the two deliberate housewives in their village toyshop, bent on domestic utilities and economies, and proud in the acquisition of two flat irons for a farthing,—has become, and rightly, a classic picture, which will have its place among the memorable things in the art of our time, when many of its loudly trumpeted magnificences are remembered no more.

112. I must not in this place omit mention, with sincere gratitude, of the like motives in the paintings of Mr. Birkett Foster; but with regret that in too equal, yet incomplete, realization of them, mistaking, in many instances, mere spotty execution for finish, he has never taken the high position that was open to him as an illustrator of rustic life.

And I am grieved to omit the names of many other artists who have protested, with consistent feeling, against the misery entailed on the poor children of our great cities,—by painting the real inheritance of childhood in the meadows and fresh air. But the graciousness and sentiment of them all is enough represented by the hitherto undreamt-of, and, in its range, unrivaled, fancy, which is now re-establishing throughout gentle Europe, the manners and customs of fairyland.

113. I may best indicate to you the grasp which the genius of Miss Kate Greenaway has taken upon the spirit of foreign lands, no less than her own, by translating the last paragraph of the entirely candid, and intimately observant, review of modern English art, given by Monsieur Ernest Chesneau, in his small volume, 'La Peinture Anglaise,' of which I will only at present say, that any of my pupils who read French with practice enough to recognize the finesse of it in exact expression, may not only accept his criticism as my own, but will find it often more careful than mine,

and nearly always better expressed; because French is essentially a critical language, and can say things in a sentence which it would take half a page of English to explain.

114. He gives first a quite lovely passage (too long to introduce now) upon the gentleness of the satire of John Leech, as opposed to the bitter malignity of former caricature. Then he goes on: "The great softening of the English mind, so manifest already in John Leech, shows itself in a decisive manner by the enthusiasm with which the public have lately received the designs of Mr. Walter Crane, Mr. Caldecott, and Miss Kate Greenaway. The two first named artists began by addressing to children the stories of Perrault and of the Arabian Nights, translated and adorned for them in a dazzling manner; and, in the works of all these three artists, landscape plays an important part;—familiar landscape, very English, interpreted with a 'bonhomie savante,'" (no translating that), "spiritual, decorative in the rarest taste,—strange and precious adaptation of Etruscan art, Flemish and Japanese, reaching, together with the perfect interpretation of nature, to incomparable chords of color harmony. These powers are found in the work of the three, but Miss Greenaway, with a profound sentiment of love for children, puts the child alone on the scene, companions him in his own solitudes, and shows the infantine nature in all its naïveté, its gaucherie, its touching grace, its shy alarm, its discoveries, ravishments, embarrassments, and victories; the stumblings of it in wintry ways, the enchanted smiles of its spring time, and all the history of its fond heart and guiltless egoism.

"From the honest but fierce laugh of the coarse Saxon, William Hogarth, to the delicious smile of Kate Greenaway, there has passed a century and a half. Is it the same people which applauds to-day the sweet genius and tender malices of the one, and which applauded the bitter genius and slaughterous satire of the other? After all, that is possible,—the hatred of vice is only another manifestation of the love of innocence."

Thus far M. Chesneau—and I venture only to take up the admirable passage at a question I did not translate: “*Ira-t-on au dela, fera-t-on mieux encore?*”—and to answer joyfully, Yes, if you choose; you, the British public, to encourage the artist in doing the best she can for you. She will, if you will receive it when she does.

115. I have brought with me to-day in the first place some examples of her pencil sketches in primary design. These in general the public cannot see, and these, as is always the case with the finest imaginative work, contain the best essence of it,—qualities never afterwards to be recovered, and expressed with the best of all sensitive instruments, the pencil point.

You have here, for consummate example, a dance of fairies under a mushroom, which she did under challenge to show me what fairies were like. “*They’ll be very like children,*” she said; I answered that I didn’t mind, and should like to see them, all the same;—so here they are, with a dance, also of two girlies, outside of a mushroom; and I don’t know whether the elfins or girls are fairyfootedest: and one or two more subjects, which you may find out;—but, in all, you will see that the line is ineffably tender and delicate, and can’t in the least be represented by the lines of a wood-cut. But I have long since shown you the power of line engraving as it was first used in Florence; and if you choose, you may far recover the declining energies of line engraving in England, by encouraging its use in the multiplication, whether of these, or of Turner outlines, or of old Florentine silver point outlines, no otherwise to be possessed by you. I have given you one example of what is possible in Mr. Roffe’s engraving of *Ida*; and, if all goes well, before the autumn fairy rings are traced, you shall see some fairy *Idas* caught flying.

116. So far of pure outline. Next, for the enrichment of it by color. Monsieur Chesneau doubts if the charm of Miss Greenaway’s work can be carried farther. I answer, with security,—yes, very much farther, and that in two di-

rections: first, in her own method of design; and secondly, the manner of its representation in printing.

First, her own design has been greatly restricted by being too ornamental, or, in your modern phrase, decorative;—contracted into any corner of a Christmas card, or stretched like an elastic band round the edges of an almanac. Now, her art is much too good to be used merely for illumination; it is essentially and perfectly that of true color-picture, and that the most naïve and delightful manner of picture, because, on the simplest terms, it comes nearest reality. No end of mischief has been done to modern art by the habit of running semi-pictorial illustration round the margins of ornamental volumes, and Miss Greenaway has been wasting her strength too sorrowfully in making the edges of her little birthday books, and the like, glitter with unregarded gold, whereas her power should be concentrated in the direct illustration of connected story, and her pictures should be made complete on the page, and far more realistic than decorative. There is no charm so enduring as that of the real representation of any given scene; her present designs are like living flowers flattened to go into an herbarium, and sometimes too pretty to be believed. We must ask her for more descriptive reality, for more convincing simplicity, and we must get her to organize a school of colorists by hand, who can absolutely facsimile her own first drawing.

117. This is the second matter on which I have to insist. I bring with me to-day twelve of her original drawings, and have mounted beside them, good impressions of the published prints.

I may heartily congratulate both the publishers and possessors of the book on the excellence of these; yet if you examine them closely, you will find that the color blocks of the print sometimes slip a little aside, so as to lose the precision of the drawing in important places; and in many other respects better can be done, in at least a certain number of chosen copies. I must not, however, detain you to-day by entering into particulars in this matter. I am content to

ask your sympathy in the endeavor, if I can prevail on the artist to undertake it.

Only with respect to this and every other question of method in engraving, observe farther that *all* the drawings I bring you to-day agree in one thing,—minuteness and delicacy of touch carried to its utmost limit, visible in its perfectness to the eyes of youth, but neither executed with a magnifying glass, nor, except to aged eyes, needing one. Even I, at sixty-four, can see the essential qualities of the work without spectacles; though only the youngest of my friends here can see, for instance, Kate's fairy dance, perfectly, but *they* can, with their own bright eyes.

118. And now please note this, for an entirely general law, again and again reiterated by me for many a year. *All great art is delicate*, and fine to the uttermost. Wherever there is blotting, or daubing, or dashing, there is weakness, at least; probably, affectation; certainly, bluntness of feeling. But, all delicacy which is rightly pleasing to the human mind is addressed to the *unaided human sight*, not to microscopic help or mediation.

And now generalize that law farther. As all noble sight is with the eyes that God has given you, so all noble motion is with the limbs God has balanced for you, and all noble strength with the arms He has knit. Though you should put electric coils into your high heels, and make spring-heeled Jacks and Gills of yourselves, you will never dance, so, as you could barefoot. Though you could have machines that would swing a ship of war into the sea, and drive a railway train through a rock, all divine strength is still the strength of Herakles, a man's wrestle, and a man's blow.

119. There are two other points I must try to enforce in closing, very clearly. "Landscape," says M. Chesneau, "takes great part in these lovely designs." He does not say of what kind; may I ask you to look, for yourselves, and think?

There are no railroads in it, to carry the children away with, are there? no tunnel or pit mouths to swallow them up,

no league-long viaducts—no blinkered iron bridges? There are only winding brooks, wooden foot-bridges, and grassy hills without any holes cut into them!

Again—there are no parks, no gentlemen's seats with attached stables and offices!—no rows of model lodging houses! no charitable institutions!! It seems as if none of these things which the English mind now rages after, possess any attraction whatever for this unimpressionable person. She is a graceful Gallio—*Gallia gratia plena*,—and cares for none of those things.

And more wonderful still,—there are no gasworks! no waterworks, no mowing machines, no sewing machines, no telegraph poles, no vestige, in fact, of science, civilization, economical arrangements, or commercial enterprise!!!

120. Would you wish me, with professorial authority, to advise her that her conceptions belong to the dark ages, and must be reared on a new foundation? Or is it, on the other hand, recommendably conceivable by *you*, that perhaps the world we truly live in may not be quite so changeable as you have thought it;—that all the gold and silver you can dig out of the earth are not worth the kingcups and the daisies she gave you of her grace; and that all the fury, and the flutter, and the wonder, and the wistfulness, of your lives, will never discover for you any other than the ancient blessing: “He maketh me to lie down in green pastures, He leadeth me beside the still waters, He restoreth my soul”?

121. Yet one word more. Observe that what this unimpressionable person *does* draw, she draws as like it as she can. It is true that the combination or composition of things is not what you can see every day. You can't every day, for instance, see a baby thrown into a basket of roses; but when she has once pleasantly invented that arrangement for you, baby is as like baby, and rose as like rose, as she can possibly draw them. And the beauty of them is in *being* like. They are blissful, just in the degree that they are natural; and the fairy land she creates for you is not beyond the sky nor

beneath the sea, but nigh you, even at your doors. She does not show you how to see it, and how to cherish.

Long since I told you ⁵³⁵this great law of noble imagination. It does not create, it does not even adorn, it does but *reveal*, the treasures to be possessed by the spirit. I told you this of the work of the great painter whom, in that day, everyone accused of representing only the fantastic and the impossible. I said forty years ago, and say at this instant, more solemnly, All his magic is in his truth.

122. I show you, to-day, a beautiful copy made for me by Mr. Macdonald, of the drawing which, of all the Turners I gave you, I miss the most. I never thought it could have been copied at all, and have received from Mr. Macdonald, in this lovely rendering of it, as much a lesson as a consolation. For my purpose to-day it is just as good as if I had brought the drawing itself.

It is one of the Loire series, which the engravers could not attempt, because it was too lovely; or would not attempt, because there was, to their notion, nothing in it. It is only a coteau, scarce a hundred feet above the river, nothing like so high as the Thames banks between here and Reading, only a coteau, and a recess of calm water, and a breath of mist, and a ray of sunset. The simplest things, the frequentest, the dearest; things that you may see any summer evening by a thousand thousand streams among the low hills of old familiar lands. Love them, and see them rightly,—Andes and Caucasus, Amazon and Indus, can give you no more.

123. The danger imminent on you is the destruction of what you *have*. I walked yesterday afternoon round St. John's gardens, and found them, as they always are in spring time, almost an ideal of earthly Paradise,—the St. John's students also disporting themselves therein in games preparatory to the advent of the true fairies of Commemoration. But, the afternoon before, I had walked down St. John's *Road*, and, on emerging therefrom to cross the railway, found on my left hand a piece of waste ground, extremely characteristic of that with which we now always

adorn the suburbs of our cities, and of which it can only be said that no demons could contrive, under the earth, a more uncomfortable and abominable place of misery for the condemned soul of dirty people, than Oxford thus allows the western light to shine upon—‘*nel aer dolce, che dal sol s’allegra.*’ For many a year I have now been telling you, and in the final words of this first course of lectures in which I have been permitted again to resume work among you, let me tell you yet once more, and if possible, more vehemently, that neither sound art, policy, nor religion, can exist in England, until, neglecting, if it must be, your own pleasure gardens and pleasure chambers, you resolve that the streets which are the habitation of the poor, and the fields which are the playgrounds of their children, shall be again restored to the rule of the spirits, whosoever they are in earth, and heaven, that ordain, and reward, with constant and conscious felicity, all that is decent and orderly, beautiful and pure.

LECTURE V.

THE FIRESIDE.

JOHN LEECH AND JOHN TENNIEL.

Delivered 7th and 10th November, 1883.

124. THE outlines of the schools of our National Art which I attempted in the four lectures given last spring, had led us to the point where the, to us chiefly important, and, it may perhaps be said, temporarily, all important questions respecting the uses of art in popular education, were introduced to us by the beautiful drawings of Miss Alexander and Miss Greenaway. But these drawings, in their dignified and delicate, often reserved, and sometimes severe characters, address themselves to a circle, which however large,—or even (I say it with thankfulness) practically infinite, yet consists exclusively of persons of already cultivated sensibilities, and more or less gentle and serious temper. The interests of general education compel our reference to a class entirely beneath these, or at least distinct from them; and our consideration of art-methods to which the conditions of cheapness, and rapidity of multiplication, are absolutely essential.

125. I have stated, and it is one of the paradoxes of my political economy which you will find on examination to be the expression of a final truth, that there is no such thing as a just or real cheapness, but that all things have their necessary price: and that you can no more obtain them for less than that price, than you can alter the course of the earth. When you obtain anything yourself for half-price, somebody else must always have paid the other half. But, in the sense either of having cost less labor, or of being the

productions of less rare genius, there are, of course, some kinds of art more generally attainable than others; and, of these, the kinds which depend on the use of the simplest means are also those which are calculated to have most influence over the simplest minds. The disciplined qualities of line-engraving will scarcely be relished, and often must even pass unperceived, by an uneducated or careless observer; but the attention of a child may be excited, and the apathy of a clown overcome, by the blunt lines of a vigorous wood-cut.

126. To my own mind, there is no more beautiful proof of benevolent design in the creation of the earth, than the exact adaptation of its materials to the art-power of man. The plasticity and constancy under fire of clay; the ductility and fusibility of gold and iron; the consistent softness of marble; and the fibrous toughness of wood, are in each material carried to the exact degree which renders them provocative of skill by their resistance, and full of reward for it by their compliance: so that the delight with which, after sufficiently intimate study of the methods of manual work, the student ought to regard the excellence of a masterpiece, is never merely the admiration of difficulties overcome, but the sympathy, in a certain sense, both with the enjoyment of the workman in managing a substance so pliable to his will, and with the worthiness, fitness, and obedience of the material itself, which at once invites his authority and rewards his concessions.

127. But of all the various instruments of his life and genius, none are so manifold in their service to him as that which the forest leaves gather every summer out of the air he breathes. Think of the use of it in house and furniture alone. I have lived in marble palaces, and under frescoed loggie, but have never been so comfortable in either as in the clean room of an old Swiss inn, whose walls and floor were of plain deal. You will find also, in the long run, that none of your modern æsthetic upholstery can match, for comfort, good old English oak wainscot; and that the crystalline magnificence of the marbles of Genoa and the macigno of

Florence can give no more pleasure to daily life than the carved brackets and trefoiled gables which once shaded the busy and merry streets, and lifted the chiming carillons above them, in Kent and Picardy.

128. As a material of sculpture, wood has hitherto been employed chiefly by the less cultivated races of Europe; and we cannot know what Orcagna would have made of his shrine, or Ghiberti of his gates, if they had worked in olive wood instead of marble and bronze. But even as matters now stand, the carving of the pinnacled stalls in our northern cathedrals, and that of the foliage on the horizontal beams of domestic architecture, gave rise to a school of ornament of which the proudest edifices of the sixteenth century are only the translation into stone; and to which our somewhat dull respect for the zigzags and dog-teeth of a sterner time has made us alike neglectful and unjust.*

129. But it is above all as a medium of engraving that the easy submission of wood to the edge of the chisel,—I will use this plain word, if you please, instead of burin,—and the tough durability of its grain, have made it so widely serviceable to us for popular pleasure in art; but mischievous also, in the degree in which it encourages the cheapest and vilest modes of design. The coarsest scrawl with a blunt pen can be reproduced on a wood-block with perfect ease by the clumsiest engraver; and there are tens of thousands of vulgar artists who can scrawl with a blunt pen, and with no trouble to themselves, something that will amuse, as I said, a child or a clown. But there is not one artist in ten thousand who can draw even simple objects rightly with a perfectly pure line; when such a line is drawn, only an extremely skillful engraver can reproduce it on wood; when reproduced, it is liable to be broken at the second or third printing; and supposing it permanent, not one spectator in ten thousand would care for it.

130. There is, however, another temptation, constant in

* Compare 'Bible of Amiens,' "aisles of aspen, orchards of apple, clusters of vine."

the practice of woodcutting, which has been peculiarly harmful to us in the present day. The action of the chisel on wood, as you doubtless are aware, is to produce a white touch on a black ground; and if a few white touches can be so distributed as to produce any kind of effect, all the black ground becomes part of the imagined picture, with no trouble whatever to the workman: so that you buy in your cheap magazine a picture,—say four inches square, or sixteen square inches of surface,—in the whole of which there may only be half an inch of work. Whereas, in line engraving, every atom of the shade has to be worked for, and that with extreme care, evenness and dexterity of hand; while even in etching, though a great quantity of the shade is mere burr and scrabble and blotch, a certain quantity of real care and skill *must* be spent in covering the surface at first. Whereas the common woodcut requires scarcely more trouble than a schoolboy takes with a scrawl on his slate, and you might order such pictures by the cartload from Coniston quarries, with only a clever urchin or two to put the chalk on.

131. But the mischief of the woodcut, considered simply as a means in the publisher's hands of imposing cheap work on the purchaser, is trebled by its morbid power of expressing ideas of ugliness or terror. While no entirely beautiful thing can be represented in a woodcut, every form of vulgarity or unpleasantness can be given to the life; and the result is, that, especially in our popular scientific books, the mere effort to be amusing and attractive leads to the publication of every species of the abominable. No microscope can teach the beauty of a statue, nor can any woodcut represent that of a nobly bred human form; but only last term we saw the whole Ashmolean Society held in a trance of rapture by the inexplicable decoration of the posteriors of a flea; and I have framed for you here, around a page of the scientific journal which styles itself 'Knowledge,' a collection of woodcuts out of a scientific survey of South America, presenting collectively to you, in designs ignorantly drawn and vilely engraved, yet with the peculiar advantage belong-

ing to the cheap woodcut, whatever, through that fourth part of the round world, from Mexico to Patagonia, can be found of savage, sordid, vicious, or ridiculous in humanity, without so much as one exceptional indication of a graceful form, a true instinct, or a cultivable capacity.

132. The second frame is of French scientific art, and still more curiously horrible. I have cut these examples, not by any means the ugliest, out of 'Les Pourquoi de Mademoiselle Suzanne,' a book in which it is proposed to instruct a young lady of eleven or twelve years old, amusingly, in the elements of science.

In the course of the lively initiation, the young lady has the advantage of seeing a garde champêtre struck dead by lightning; she is par parenthèse entertained with the history and picture of the suicide of the cook Vatel; somebody's heart, liver, and forearm are dissected for her; all the phenomena of nightmare are described and portrayed; and whatever specters of monstrosity can be conjured into the sun, the moon, the stars, the sky, the sea, the railway, and the telegraph, are collected into black company by the cheap engraver. *Black* company is a mild word: you will find the right phrase now instinctively adopted by the very persons who are most charmed by these new modes of sensation. In the 'Century' magazine for this month, the reviewer of some American landscape of this class tells us that Mr. —, whoever he is, by a series of bands of black and red paint, has succeeded in entirely reproducing the '*Demoniac*' beauty of the sunset.

133. I have framed these French cuts, however, chiefly for purposes of illustration in my last lecture of this year, for they show you in perfect abstract all the wrong,—*wrong* unquestionably, whether you call it *Demoniac*, *Diabolic*, or *Æsthetic*,—against which my entire teaching, from its first syllable to this day, has been straight antagonist. Of this, as I have said, in my terminal address: the first frame is for to-day enough representation of ordinary English cheap-trade wood-cutting in its necessary limitation to ugly subject,

and its disrespect for the very quality of the material on which its value depends, elasticity. There is this great difference between the respect for his material proper to a workman in metal or marble, and to one working in clay or wood, that the former has to exhibit the actual beauty of the substance itself, but the latter only its special capacity of answering his purpose. A sculptor in marble is required to show the beauty of marble surface, a sculptor in gold its various luster, a worker in iron its ductile strength. But the wood-cutter has not to exhibit his block, nor the engraver his copper-plate. They have only to use the relative softness and rigidity of those substances to receive and multiply the lines drawn by the human hand; and it is not the least an admirable quality in wood that it is capable of printing a large blot; but an entirely admirable one that by its tough elasticity it can preserve through any number of impressions the distinctness of a well cut line.

134. Not admirable, I say, to print a blot; but to print a pure line unbroken, and an intentionally widened space or spot of darkness, of the exact shape wanted. In my former lectures on Wood Engraving* I did not enough explain this quite separate virtue of the material. Neither in pencil nor pen drawing, neither in engraving nor etching, can a line be widened arbitrarily, or a spot enlarged at ease. The action of the moving point is continuous; you can increase or diminish the line's thickness gradually, but not by starts; you must drive your plow-furrow, or let your pen glide, at a fixed rate of motion; nor can you afterwards give more breadth to the pen line without overcharging the ink, nor by any labor of etching tool dig out a cavity of shadow such as the wood engraver leaves in an instant.

135. Hence, the methods of design which depend on irregularly expressive shapes of black touch, belong to wood exclusively; and the examples placed formerly in your school from Bewick's cuts of speckled plumage, and Burgmaier's

* Ariadne Florentina (Ed.).

heraldry of barred helmets and black eagles, were intended to direct your attention to this especially intellectual manner of work, as opposed to modern scribbling and hatching. But I have now removed these old-fashioned prints, (placing them, however, in always accessible reserve,) because I found they possessed no attraction for inexperienced students, and I think it better to explain the qualities of execution of a similar kind, though otherwise directed, which are to be found in the designs of our living masters,—addressed to existing tastes,—and occupied with familiar scenes.

136. Although I have headed my lecture only with the names of Leech and Tenniel, as being the real founders of 'Punch,' and by far the greatest of its illustrators, both in force of art and range of thought, yet in the precision of the use of his means, and the subtle boldness to which he has educated the interpreters of his design, Mr. Du Maurier is more exemplary than either; and I have therefore had enlarged by photography,—your thanks are due to the brother of Miss Greenaway for the skill with which the proofs have been produced,—for first example of fine wood-cutting, the heads of two of Mr. Du Maurier's chief heroines, Mrs. Ponsonby de Tomkyns, and Lady Midas, in the great scene where Mrs. Ponsonby takes on herself the administration of Lady Midas's at home.

You see at once how the effect in both depends on the coagulation and concretion of the black touches into masses relieved only by interspersed sparkling grains of incised light, presenting the realistic and vital portraiture of both ladies with no more labor than would occupy the draughtsman but a few minutes, and the engraver perhaps an hour or two. It is true that the features of the elder of the two friends might be supposed to yield themselves without difficulty to the effect of the irregular and blunt lines which are employed to reproduce them; but it is a matter of no small wonderment to see the delicate profile and softly rounded features of the younger lady suggested by an outline which must have been drawn in the course of a few seconds, and

by some eight or ten firmly swept parallel penstrokes right across the cheek.

137. I must ask you especially to note the successful result of this easy method of obtaining an even tint, because it is the proper, and the inexorably required, method of shade in classic wood-engraving. Recently, very remarkable and admirable efforts have been made by American artists to represent flesh tints with fine textures of crossed white lines and spots. But all such attempts are futile; it is an optical law that transparency in shadows can only be obtained by dark lines with white spaces, not white lines with dark spaces. For what we feel to be transparency in any color or any atmosphere, consists in the penetration of darkness by a more distant light, not in the subduing of light by a more distant darkness. A snowstorm seen white on a dark sky gives us no idea of transparency, but rain between us and a rainbow does; and so throughout all the expedients of chiaroscuro drawing and painting, transparent effects are produced by laying dark over light, and opaque by laying light over dark. It would be tedious in a lecture to press these technical principles farther; it is enough that I should state the general law, and its practical consequence, that no wood engraver need attempt to copy Correggio or Guido; his business is not with complexions, but with characters; and his fame is to rest, not on the perfection of his work, but on its propriety.

138. I must in the next place ask you to look at the aphorisms given as an art catechism in the second chapter of the 'Laws of Fesole.' One of the principal of these gives the student, as a test by which to recognize good color, that *all the white in the picture is precious, and all the black, conspicuous*; not by the quantity of it, but the impassable difference between it and all the colored spaces.

The rule is just as true for wood-cutting. In fine examples of it, the black is left for local color only—for dark dresses, or dark patterns on light ones, dark hair, or dark eyes; it is

never left for general gloom, out of which the figures emerge like specters.

139. When, however, a number of Mr. Du Maurier's compositions are seen together, and compared with the natural simplicity and aerial space of Leech's, they will be felt to depend on this principle too absolutely and undisguisedly; so that the quarterings of black and white in them sometimes look more like a chess board than a picture. But in minor and careful passages, his method is wholly exemplary, and in the next example I enlarge for you,—Alderman Sir Robert admiring the portraits of the Duchess and the Colonel,—he has not only shown you every principle of wood-cutting, but abstracted for you also the laws of beauty, whose definite and every year more emphatic assertion in the pages of 'Punch' is the ruling charm and most legitimate pride of the immortal periodical. Day by day the search for grotesque, ludicrous, or loathsome subject which degraded the caricatures in its original, the 'Charivari,' and renders the dismally comic journals of Italy the mere plagues and cancers of the State, became, in our English satirists, an earnest comparison of the things which were graceful and honorable, with those which were graceless and dishonest, in modern life. Gradually the kind and vivid genius of John Leech, capable in its brightness of finding pretty jest in everything, but capable in its tenderness also of rejoicing in the beauty of everything, softened and illumined with its loving wit the entire scope of English social scene; the graver power of Tenniel brought a steady tone and law of morality into the license of political contention; and finally the acute, highly trained, and accurately physiologic observation of Du Maurier traced for us, to its true origin in vice or virtue, every order of expression in the mixed circle of metropolitan rank and wealth: and has done so with a closeness of delineation the like of which has not been seen since Holbein, and deserving the most respectful praise in that, whatever power of satire it may reach by the selection and assemblage of telling points of character, it never degenerates into cari-

capture. Nay, the terrific force of blame which he obtains by collecting, as here in the profile of the Knight-Alderman, features separately faultful into the closest focus, depends on the very fact that they are *not* caricatured.

140. Thus far, the justice of the most careful criticism may gratefully ratify the applause with which the works of these three artists have been received by the British public. Rapidly I must now glance at the conditions of defect which must necessarily occur in art primarily intended to amuse the multitude, and which can therefore only be for moments serious, and by stealth didactic.

In the first place, you must be clear about 'Punch's' politics. He is a polite Whig, with a sentimental respect for the Crown, and a practical respect for property. He steadily flatters Lord Palmerston, from his heart adores Mr. Gladstone; steadily, but not virulently, caricatures Mr. D'Israeli; violently and virulently castigates assault upon property, in any kind, and holds up for the general ideal of perfection, to be aimed at by all the children of heaven and earth, the British Hunting Squire, the British Colonel, and the British Sailor.

141. Primarily, the British Hunting Squire, with his family. The most beautiful sketch by Leech throughout his career, and, on the whole, in all 'Punch,' I take to be Miss Alice on her father's horse;—her, with three or four more young Dians, I had put in one frame for you, but found they ran each other too hard,—being in each case typical of what 'Punch' thinks every young lady ought to be. He has never fairly asked how far every young lady *can* be like them; nor has he in a single instance endeavored to represent the beauty of the poor.

On the contrary, his witness to their degradation, as inevitable in the circumstances of their London life, is constant, and for the most part, contemptuous; nor can I more sternly enforce what I have said at various times on that subject than by placing permanently in your schools the cruelly true design of Du Maurier, representing the London mechanic

with his family, when Mr. Todeson is asked to amuse 'the dear creatures' at Lady Clara's garden tea.

142. I show you for comparison with it, to-day, a little painting of a country girl of our Westmoreland type, which I have given to our Coniston children's school, to show our hill and vale-bred lassies that God will take care of their good looks for them, even though He may have appointed for them the toil of the women of Sarepta and Samaria, in being gatherers of wood and drawers of water.

143. I cannot say how far with didactic purpose, or how far in carelessly inevitable satire, 'Punch' contrasts with the disgrace of street poverty the beauties of the London drawing-room,—the wives and daughters of the great upper middle class, exalted by the wealth of the capital, and of the larger manufacturing towns.

These are, with few exceptions, represented either as receiving company, or reclining on sofas in extremely elegant morning dresses, and surrounded by charming children, with whom they are usually too idle to play. The children are extremely intelligent, and often exquisitely pretty, yet dependent for great part of their charm on the dressing of their back hair, and the fitting of their boots. As they grow up, their girlish beauty is more and more fixed in an expression of more or less self-satisfied pride and practiced apathy. There is no example in 'Punch' of a girl in society whose face expresses humility or enthusiasm—except in mistaken directions and foolish degrees. It is true that only in these mistaken feelings can be found palpable material for jest, and that much of 'Punch's' satire is well intended and just.

144. It seems to have been hitherto impossible, when once the zest of satirical humor is felt, even by so kind and genial a heart as John Leech's, to restrain it, and to elevate it into the playfulness of praise. In the designs of Richter, of which I have so often spoken, among scenes of domestic beauty and pathos, he continually introduces little pieces of play,—such, for instance, as that of the design of the 'Wide, Wide World,' in which the very young puppy, with its paws

on its—relatively as young—master's shoulder, looks out with him over the fence of their cottage garden. And it is surely conceivable that some day the rich power of a true humorist may be given to express more vividly the comic side which exists in many beautiful incidents of daily life, and refuse at last to dwell, even with a smile, on its follies.

145. This, however, must clearly be a condition of future human development, for hitherto the perfect power of seizing comic incidents has always been associated with some liking for ugliness, and some exultation in disaster. The law holds—and holds with no relaxation—even in the instance of so wise and benevolent a man as the Swiss schoolmaster, Topffer, whose death, a few years since, left none to succeed him in perfection of pure linear caricature. He can do more with fewer lines than any draughtsman known to me, and in several plates of his 'Histoire d'Albert,' has succeeded in entirely representing the tenor of conversation with no more than half the profile and one eye of the speaker.

He generally took a walking tour through Switzerland, with his pupils, in the summer holidays, and illustrated his exquisitely humorous diary of their adventures with pen sketches, which show a capacity of appreciating beautiful landscape as great as his grotesque faculty; but his mind is drawn away from the most sublime scene, in a moment, to the difficulties of the halting-place, or the rascalities of the inn; and his power is never so marvelously exerted as in depicting a group of roguish guides, shameless beggars, or hopeless cretins.

146. Nevertheless, with these and such other materials as our European masters of physiognomy have furnished in portraiture of their nations, I can see my way to the arrangement of a very curious series of illustrations of character, if only I could also see my way to some place wherein to exhibit them.

I said in my opening lecture that I hoped the studies of the figure initiated by Mr. Richmond might be found consistent with the slighter practice in my own schools; and I

must say, in passing, that the only real hindrance to this, but at present an insuperable one, is want of room. It is a somewhat characteristic fact, expressive of the tendencies of this age, that Oxford thinks nothing of spending £150,000 for the elevation and ornature, in a style as inherently corrupt as it is un-English, of the rooms for the torture and shame of her scholars, which to all practical purposes might just as well have been inflicted on them in her college halls, or her professors' drawing-rooms; but that the only place where her art-workmen can be taught to draw, is the cellar of her old Taylor buildings, and the only place where her art professor can store the cast of a statue, is his own private office in the gallery above.

147. Pending the now indispensable addition of some rude workroom to the Taylor galleries, in which study of the figure may be carried on under a competent master, I have lent, from the drawings belonging to the St. George's Guild, such studies of Venetian pictures as may form the taste of the figure-student in general composition, and I have presented to the Ruskin schools twelve principal drawings out of Miss Alexander's Tuscan book, which may be standards of method, in drawing from the life, to students capable of as determined industry. But, no less for the better guidance of the separate figure class in the room which I hope one day to see built, than for immediate help in such irregular figure study as may be possible under present conditions, I find myself grievously in want of such a grammar of the laws of harmony in the human form and face as may be consistent with whatever accurate knowledge of elder races may have been obtained by recent anthropology, and at the same time authoritative in its statement of the effect on human expression, of the various mental states and passions. And it seems to me that by arranging in groups capable of easy comparison, the examples of similar expression given by the masters whose work we have been reviewing, we may advance further such a science of physiognomy as will be morally useful, than by any quantity of measuring of savage crania:

and if, therefore, among the rudimentary series in the art schools you find, before I can get the new explanatory catalogues printed, some more or less systematic groups of heads collected out of 'Punch,' you must not think that I am doing this merely for your amusement, or that such examples are beneath the dignity of academical instruction. My own belief is that the difference between the features of a good and a bad servant, of a churl and a gentleman, is a much more useful and interesting subject of inquiry than the gradations of snub nose or flat forehead which became extinct with the Dodo, or the insertions of muscle and articulations of joint which are common to the flesh of all humanity.

148. Returning to our immediate subject, and considering 'Punch' as the expression of the popular voice, which he virtually is, and even somewhat obsequiously, is it not wonderful that he has never a word to say for the British manufacturer, and that the true citizen of his own city is represented by him only under the types, either of Sir Pompey Bedell or of the more tranquil magnate and potentate, the bulwark of British constitutional principles and initiator of British private enterprise, Mr. John Smith, whose biography is given with becoming reverence by Miss Ingelow, in the last but one of her 'Stories told to a Child'? And is it not also surely some overruling power in the nature of things, quite other than the desire of his readers, which compels Mr. Punch, when the squire, the colonel, and the admiral are to be at once expressed, together with all that they legislate or fight for, in the symbolic figure of the nation, to represent the incarnate John Bull always as a farmer,—never as a manufacturer or shop-keeper, and to conceive and exhibit him rather as paymaster for the faults of his neighbors, than as watching for opportunity of gain out of their follies?

149. It had been well if either under this accepted, though now antiquated, type, or under the more poetical symbols of Britannia, or the British Lion, 'Punch' had ventured oftener to intimate the exact degree in which the

nation was following its ideal; and marked the occasions when Britannia's crest began too fatally to lose its resemblance to Athena's, and liken itself to an ordinary cockscomb,—or when the British lion had—of course only for a moment, and probably in pecuniary difficulties—dropped his tail between his legs.

150. But the aspects under which either British lion, Gallic eagle, or Russian bear have been regarded by our contemplative serial, are unfortunately dependent on the fact that all his three great designers are, in the most narrow sense, London citizens. I have said that every great man belongs not only to his own city, but to his own village.* The artists of 'Punch' have no village to belong to; for *them*, the street corner is the face of the whole earth, and the two only quarters of the heavenly horizon are the east and west—End. And although Leech's conception of the Distinguished Foreigner, Du Maurier's of the Herr Professor, and Tenniel's of La Liberté, or La France, are all extremely true and delightful,—to the superficial extent of the sketch by Dickens in 'Mrs. Lirriper's Lodgings,'—they are, effectively, all seen with Mrs. Lirriper's eyes; they virtually represent of the Continent little more than the upper town of Boulogne; nor has anything yet been done by all the wit and all the kindness of these great popular designers to deepen the reliance of any European nation on the good qualities of its neighbors.

151. You no doubt have at the Union the most interesting and beautiful series of the Tenniel cartoons which have been collectively published, with the explanation of their motives. If you begin with No. 38, you will find a consecutive series of ten extremely forcible drawings, casting the utmost obloquy in the power of the designer upon the French Emperor, the Pope, and the Italian clergy, and alike discourteous to the head of the nation which had fought side by side with us at Inkerman, and impious in its representation of the Catholic power to which Italy owed, and still

* Ante, § 65.

owes, whatever has made her glorious among the nations of Christendom, or happy among the families of the earth.

Among them you will find other two, representing our wars with China, and the triumph of our missionary manner of compelling free trade at the point of the bayonet: while, for the close and consummation of the series, you will see the genius and valor of your country figuratively summed in the tableau, subscribed,—

‘ John Bull defends his pudding.’

Is this indeed then the final myth of English heroism, into which King Arthur, and St. George, and Britannia, and the British Lion are all collated, concluded, and perfected by Evolution, in the literal words of Carlyle, ‘like four whale cubs combined by boiling’? Do you wish your Queen in future to style herself Placentæ, instead of Fidei Defensor? and is it to your pride, to your hope, or even to your pleasure, that this once sacred as well as sceptered island of yours, in whose second capital city Constantine was crowned;—to whose shores St. Augustine and St. Columba brought benediction;—who gave her Lion-hearts to the Tombs of the East,—her Pilgrim Fathers to the Cradle of the West;—who has wrapped the sea round her for her mantle, and breathes with her strong bosom the air of every sign in heaven;—is it to your good pleasure that the Hero-children born to her in these latter days should write no loftier legend on their shields than ‘ John Bull defends his pudding ’?

152. I chanced only the other day on a minor, yet, to my own mind, very frightful proof of the extent to which this caitiff symbol is fastening itself in the popular mind. I was in search of some extremely pastoral musical instrument, whereby to regulate the songs of our Coniston village children, without the requirement of peculiar skill either in master or monitor. But the only means of melody offered to me by the trade of the neighborhood was this so-called ‘harmonicon,’—purchasable, according to your present notions, cheaply, for a shilling; and with this piece of cheerful

mythology on its lid gratis, wherein you see what 'Gradus ad Parnassum' we prepare for the rustic mind, and that the virtue and the jollity of England are vested only in the money-bag in each hand of him. I shall place this harmonicon lid in your schools, among my examples of what we call liberal education,—and, with it, what instances I can find of the way Florence, Siena, or Venice taught their people to regard themselves.

153. For, indeed, in many a past year, it has every now and then been a subject of recurring thought to me, what such a genius as that of Tenniel would have done for us, had we asked the best of it, and had the feeling of the nation respecting the arts, as a record of its honor, been like that of the Italians in their proud days. To some extent, the memory of our bravest war has been preserved for us by the pathetic force of Mrs. Butler; but her conceptions are realistic only, and rather of thrilling episodes than of great military principle and thought. On the contrary, Tenniel has much of the largeness and symbolic mystery of imagination which belong to the great leaders of classic art: in the shadowy masses and sweeping lines of his great compositions, there are tendencies which might have won his adoption into the school of Tintoret; and his scorn of whatever seems to him dishonest or contemptible in religion, would have translated itself into awe in the presence of its vital power.

I gave you, when first I came to Oxford, Tintoret's picture of the Doge Mocenigo, with his divine spiritual attendants, in the cortile of St. Mark's. It is surely our own fault, more than Mr. Tenniel's, if the best portraits he can give us of the heads of our English government should be rather on the occasion of their dinner at Greenwich than their devotion at St. Paul's.

154. My time has been too long spent in carping;—but yet the faults which I have pointed out were such as could scarcely occur to you without some such indication, and which gravely need your observance, and, as far as you are accountable for them, your repentance. I can best briefly,

in conclusion, define what I would fain have illustrated at length, the charm, in this art of the Fireside, which you tacitly feel, and have every rational ground to rejoice in. With whatever restriction you should receive the flattery, and with whatever caution the guidance, of these great illustrators of your daily life, this at least you may thankfully recognize in the sum of their work, that it contains the evidence of a prevalent and crescent beauty and energy in the youth of our day, which may justify the most discontented 'laudator temporis acti' in leaving the future happily in their hands. The witness of ancient art points often to a general and equal symmetry of body and mind in well trained races; but at no period, so far as I am able to gather by the most careful comparison of existing portraiture, has there ever been a loveliness so variably refined, so modestly and kindly virtuous, so innocently fantastic, and so daintily pure, as the present girl-beauty of our British Islands: and whatever, for men now entering on the main battle of life, may be the confused temptations or inevitable errors of a period of moral doubt and social change, my own experience of help already received from the younger members of this University, is enough to assure me that there has been no time, in all the pride of the past, when their country might more serenely trust in the glory of her youth;—when her prosperity was more secure in their genius, or her honor in their hearts.

LECTURE VI.

THE HILL-SIDE.

GEORGE ROBSON AND COPLEY FIELDING.

Delivered 17th and 21st November, 1883.

155. IN the five preceding lectures given this year, I have endeavored to generalize the most noteworthy facts respecting the religious, legendary, classic, and, in two kinds, domestic, art of England. There remains yet to be defined one, far-away, and, in a manner, outcast, school, which belongs as yet wholly to the present century; and which, if we were to trust to appearances, would exclusively and for ever belong to it, neither having been known before our time, nor surviving afterwards,—the art of landscape.

Not known before,—except as a trick, or a pastime; not surviving afterwards, because we seem straight on the way to pass our lives in cities twenty miles wide, and to travel from each of them to the next, underground: outcast now, even while it retains some vague hold on old-fashioned people's minds, since the best existing examples of it are placed by the authorities of the National Gallery in a cellar lighted by only two windows, and those at the bottom of a well, blocked by four dead brick walls fifty feet high.

156. Notwithstanding these discouragements, I am still minded to carry out the design in which the so-called Ruskin schools were founded, that of arranging in them a code of elementary practice, which should secure the skill of the student in the department of landscape before he entered on the branches of art requiring higher genius. Nay, I am more than ever minded to fulfill my former purpose now, in

the exact degree in which I see the advantages of such a method denied or refused in other academies; and the beauty of natural scenery increasingly in danger of destruction by the gross interests and disquieting pleasures of the citizen. For indeed, as I before stated to you, when first I undertook the duties of this professorship, my own personal liking for landscape made me extremely guarded in recommending its study. I only gave three lectures on landscape in six years, and I never published them; my hope and endeavor was to connect the study of Nature for you with that of History; to make you interested in Greek legend as well as in Greek lakes and limestone; to acquaint you with the relations of northern hills and rivers to the schools of Christian Theology; and of Renaissance town-life to the rage of its infidelity. But I have done enough,—and more than enough,—according to my time of life, in these directions; and now, justified, I trust, in your judgment, from the charge of weak concession to my own predilections, I shall arrange the exercises required consistently from my drawing-classes, with quite primary reference to landscape art; and teach the early philosophy of beauty, under laws liable to no dispute by human passion, but secure in the grace of Earth, and light of Heaven.

157. And I wish in the present lecture to define to you the nature and meaning of landscape-art, as it arose in England eighty years ago, without reference to the great master whose works have been the principal subject of my own enthusiasm. I have always stated distinctly that the genius of Turner was exceptional, both in its kind and in its height: and although his elementary modes of work are beyond dispute authoritative, and the best that can be given for example and exercise, the general tenor of his design is entirely beyond the acceptance of common knowledge, and even of safe sympathy. For in his extreme sadness, and in the morbid tones of mind out of which it arose, he is one with Byron and Goethe; and is no more to be held representative of General English landscape art than Childe Harold or Faust are exponents of

the total love of Nature expressed in English or German literature. To take a single illustrative instance, there is no foreground of Turner's in which you can find a flower.

158. In some respects, indeed, the vast strength of this unfollowable Eremite of a master was crushing, instead of edifying, to the English schools. All the true and strong men who were his contemporaries shrank from the slightest attempt at rivalry with him on his own lines;—and his own lines were cast far. But for him, Stanfield might have sometimes painted an Alpine valley or a Biscay storm; but the moment there was any question of rendering magnitude, or terror, every effort became puny beside Turner, and Stanfield meekly resigned himself to potter all his life round the Isle of Wight, and paint the Needles on one side, and squalls off Cowes on the other. In like manner, Copley Fielding in his young days painted vigorously in oil, and showed promise of attaining considerable dignity in classic composition; but the moment Turner's Garden of Hesperides and Building of Carthage appeared in the Academy, there was an end to ambition in that direction; and thenceforth Fielding settled down to his quiet presidency of the old Water-color Society, and painted, in unassuming replicas, his passing showers in the Highlands, and sheep on the South Downs.

159. Which are, indeed, for most of us, much more appropriate objects of contemplation; and the old water-color room at that time, adorned yearly with the complete year's labor of Fielding, Robson, De Wint, Barrett, Prout, and William Hunt, presented an aggregate of unaffected pleasantness and truth, the like of which, if you could now see, after a morning spent among the enormities of luscious and exotic art which frown or glare along your miles of exhibition wall, would really be felt by you to possess the charm of a bouquet of bluebells and cowslips, amidst a prize show of cactus and orchid from the hothouses of Kew.

The root of this delightfulness was an extremely rare sincerity in the personal pleasure which all these men took, not in their own pictures, but in the *subjects* of them—a

form of enthusiasm which, while it was as simple, was also as romantic, in the best sense, as the sentiment of a young girl: and whose nature I can the better both define and certify to you, because it was the impulse to which I owed the best force of my own life, and in sympathy with which I have done or said whatever of saying or doing in it has been useful to others.

160. When I spoke, in this year's first lecture, of Rossetti, as the chief intellectual force in the establishment of the modern Romantic School; and again in the second lecture promised, at the end of our course, the collection of the evidence of Romantic passion in all our good English art, you will find it explained at the same time that I do not use the word Romantic as opposed to Classic, but as opposed to the prosaic characters of selfishness and stupidity, in all times, and among all nations. I do not think of King Arthur as opposed to Theseus, or to Valerius, but to Alderman Sir Robert, and Mr. John Smith. And therefore I opposed the child-like love of beautiful things, in even the least of our English Modern Painters, from the first page of the book I wrote about them to the last,—in Greek Art, to what seemed to me then (and in a certain sense is demonstrably to me now) too selfish or too formal,—and in Teutonic Art, to what was cold in a far worse sense, either by boorish dullness or educated affectation.

161. I think the two best central types of Non-Romance, of the power of Absolute Vulgarity in selfishness, as distinguished from the eternal dignity of Reverence and Love, are stamped for you on the two most finished issues of your English currency in the portraits of Henry the Eighth and Charles the Second. There is no interfering element in the vulgarity of them, no pardon to be sought in their poverty, ignorance, or weakness. Both are men of strong powers of mind, and both well informed in all particulars of human knowledge possible to them. But in the one you see the destroyer, according to his power, of English religion; and, in the other, the destroyer, according to his power, of English

morality: culminating types to you of whatever in the spirit, or dis-spirit, of succeeding ages, robs God, or dishonors man.

162. I named to you, as an example of the unromantic art which was assailed by the pre-Raphaelites, Vandyke's sketch of the 'Miraculous Draught of Fishes.' Very near it, in the National Gallery, hangs another piscatory subject,* by Teniers, which I will ask you carefully also to examine as a perfect type of the Unromantic Art which was assailed by the gentle enthusiasm of the English School of Landscape. It represents a few ordinary Dutch houses, an ordinary Dutch steeple or two,—some still more ordinary Dutch trees,—and most ordinary Dutch clouds, assembled in contemplation of an ordinary Dutch duck-pond; or, perhaps, in respect of its size, we may more courteously call it a goose-pond. All these objects are painted either gray or brown, and the atmosphere is of the kind which looks not merely as if the sun had disappeared for the day, but as if he had gone out altogether, and left a stable lantern instead. The total effect having appeared, even to the painter's own mind, at last little exhilaratory, he has enlivened it by three figures on the brink of the goose-pond,—two gentlemen and a lady,—standing all three perfectly upright, side by side, in court dress, the gentlemen with expansive boots, and all with conical hats and high feathers. In order to invest these characters with dramatic interest, a rustic fisherman presents to them as a tribute,—or, perhaps, exhibits as a natural curiosity, a large fish, just elicited from the goose-pond by his adventurous companions, who have waded into the middle of it, every one of them, with singular exactitude, up to the calf of his leg. The principles of National Gallery arrangement of course put this picture on the line, while Tintoret†

* No. 817, 'Teniers' Château at Perck.' The expressions touching the want of light in it are a little violent, being strictly accurate only of such pictures of the Dutch school as Vanderneer's 'Evening Landscape,' 152, and 'Canal Scene,' 732.

† The large new Tintoret wholly so, and the largest Gainsborough, the best in England known to me, used merely for wall furniture at the top of the room.

and Gainsborough are hung out of sight; but in this instance I hold myself fortunate in being able to refer you to an example, so conveniently examinable, of the utmost stoop and densest level of human stupidity yet fallen to by any art in which some degree of manual dexterity is essential.

163. This crisis of degradation, you will observe, takes place at the historical moment when by the concurrent power of avaricious trade on one side, and unrestrained luxury on the other, the idea of any but an earthly interest, and any but proud or carnal pleasures, had been virtually effaced throughout Europe; and men, by their resolute self-seeking, had literally at last ostracized the Spiritual Sun from Heaven, and lived by little more than the *snuff* of the wick of their own mental stable lantern.

164. The forms of romantic art hitherto described in this course of lectures, were all distinctly reactionary against the stupor of this Stygian pool, brooded over by Batavian fog. But the first signs of re-awakening in the vital power of imagination were, long before, seen in landscape art. Not the utmost strength of the great figure painters could break through the bonds of the flesh. Reynolds vainly tried to substitute the age of Innocence for the experience of Religion—the true genius at his side remained always Cupid unbinding the girdle of Venus. Gainsborough knew no goddesses other than Mrs. Graham or Mrs. Siddons; Vandyke and Rubens, than the beauties of the court, or the graces of its corpulent Mythology. But at last there arose, and arose inevitably, a feeling that, if not any more in Heaven, at least in the solitary places of the earth, there was a pleasure to be found based neither on pride nor sensuality.

165. Among the least attractive of the mingled examples in your school-alcove, you will find a quiet pencil-drawing of a sunset at Rome, seen from beneath a deserted arch, whether of Triumph or of Peace. Its modest art-skill is restricted almost exclusively to the expression of warm light in the low harmony of evening; but it differs wholly from the learned compositions and skilled artifices of former paint-

ing by its purity of unaffected pleasure and rest in the little that is given. Here, at last, we feel, is an honest Englishman, who has got away out of all the Camere, and the Loggie, and the Stanze, and the schools, and the Disputas, and the Incendios, and the Battaglias, and busts of this god, and torsos of that, and the chatter of the studio, and the rush of the corso;—and has laid himself down, with his own poor eyes and heart, and the sun casting its light between ruins,—possessor, he, of so much of the evidently blessed peace of things,—he, and the poor lizard in the cranny of the stones beside him.

166. I believe that with the name of Richard Wilson, the history of sincere landscape art, founded on a meditative love of Nature, begins for England: and, I may add, for Europe, without any wide extension of claim; for the only continental landscape work of any sterling merit with which I am acquainted, consists in the old-fashioned drawings, made fifty years ago to meet the demand of the first influx of British travelers into Switzerland after the fall of Napoleon.

With Richard Wilson, at all events, our own true and modest schools began, an especial direction being presently given to them in the rendering effects of aerial perspective by the skill in water-color of Girtin and Cousins. The drawings of these two masters, recently bequeathed to the British Museum, and I hope soon to be placed in a well-lighted gallery, contain quite insuperable examples of skill in the management of clear tints, and of the meditative charm consisting in the quiet and unaffected treatment of literally true scenes.

But the impulse to which the new school owed the discovery of its power in *color* was owing, I believe, to the poetry of Scott and Byron. Both by their vivid passion and accurate description, the painters of their day were taught the true value of natural color, while the love of mountains, common to both poets, forced their illustrators into reverent pilgrimage to scenes which till then had been thought too

desolate for the spectator's interest, or too difficult for the painter's skill.

167. I have endeavored, in the 92d number of 'Fors Clavigera,' to give some analysis of the main character of the scenery by which Scott was inspired; but, in endeavoring to mark with distinctness enough the dependence of all its sentiment on the beauty of its rivers, I have not enough referred to the collateral charm, in a borderer's mind, of the very mists and rain that feed them. In the climates of Greece and Italy, the monotonous sunshine, burning away the deep colors of everything into white and gray, and wasting the strongest mountain-streams into threads among their shingle, alternates with the blue-fiery thunder-cloud, with sheets of flooding rain, and volleying musketry of hail. But throughout all the wild uplands of the former Saxon kingdom of Northumbria, from Edwin's crag to Hilda's cliff, the wreaths of softly resting mist, and wandering to and fro of capricious shadows of clouds, and drooping swathes, or flying fringes, of the benignant western rain, cherish, on every moorland summit, the deep-fibered moss,—embalm the myrtle,—gild the asphodel,—enchant along the valleys the wild grace of their woods, and the green elf land of their meadows; and passing away, or melting into the translucent calm of mountain air, leave to the open sunshine a world with every creature ready to rejoice in its comfort, and every rock and flower reflecting new loveliness to its light.

168. Perhaps among the confusedly miscellaneous examples of ancient and modern, tropic or arctic art, with which I have filled the niches of your schools, one, hitherto of the least noticeable or serviceable to you, has been the dark Copley Fielding drawing above the fireplace;—nor am I afraid of trusting your kindness with the confession, that it is placed there more in memory of my old master, than in the hope of its proving of any lively interest or use to you. But it is now some fifty years since it was brought in triumph to Herne Hill, being the first picture my father ever bought, and in so far the foundation of the subsequent collection,

some part of which has been permitted to become permanently national at Cambridge and Oxford. The pleasure which that single drawing gave on the morning of its installation in our home was greater than to the purchaser accustomed to these times of limitless demand and supply would be credible, or even conceivable;—and our back parlor for that day was as full of surprise and gratulation as ever Cimabue's joyful Borgo.

The drawing represents, as you will probably—not—remember, only a gleam of sunshine on a peaty moor, bringing out the tartan plaids of two Highland drovers, and relieved against the dark gray of a range of quite featureless and nameless distant mountains, seen through a soft curtain of rapidly drifting rain.

169. Some little time after we had acquired this unobtrusive treasure, one of my fellow students,—it was in my undergraduate days at Christ Church—came to Herne Hill to see what the picture might be which had afforded me so great ravishment. He had himself, as afterwards Kinglake and Curzon, been urged far by the thirst of oriental travel;—the checker of plaid and bonnet had for him but feeble interest after having worn turban and capote; and the gray of Scottish hill-side still less, to one who had climbed Olympus and Abarim. After gazing blankly for a minute or two at the cheerless district through which lay the drover's journey, he turned to me and said, "But, Ruskin, what is the use of painting such very bad weather?" And I had no answer, except that, for Copley Fielding and for me, there was no such thing as bad weather, but only different kinds of pleasant weather—some indeed inferring the exercise of a little courage and patience; but all, in every hour of it, exactly what was fittest and best, whether for the hills, the cattle, the drovers—or my master and me.

170. Be the case as it might,—and admitting that in a certain sense the weather *might* be bad in the eyes of a Greek or a Saracen,—there was no question that to us it was not only pleasant, but picturesque; and that we set

ourselves to the painting of it, with as sincere desire to represent the—to our minds—beautiful aspect of a mountain shower, as ever Titian a blue sky, or Angelico a golden sphere of Paradise. Nay, in some sort, with a more perfect delight in the thing itself, and less coloring of by our own thoughts or inventions. For that matter, neither Fielding, nor Robson, nor David Cox, nor Peter de Wint, nor any of this school, ever had much thought or invention to disturb them. They were, themselves, a kind of contemplative cattle, and flock of the field, who merely liked being out of doors, and brought as much painted fresh air as they could, back into the house with them.

171. Neither must you think that this painting of fresh air is an entirely easy or soon managed business. You may paint a modern French emotional landscape with a pail of whitewash and a pot of gas-tar in ten minutes, at the outside. I don't know how long the operator himself takes to it—of course some little more time must be occupied in plastering on the oil-paint so that it will stick, and not run; but the skill of a good plasterer is really all that is required,—the rather that in the modern idea of solemn symmetry you always make the bottom of your picture, as much as you can, like the top. You put seven or eight streaks of the plaster for your sky, to begin with; then you put in a row of bushes with the gas-tar, then you rub the ends of them into the same shapes upside down—you put three or four more streaks of white, to intimate the presence of a pool of water—and if you finish off with a log that looks something like a dead body, your picture will have the credit of being a digest of a whole novel of Gaboriau, and lead the talk of the season.

172. Far other was the kind of labor required of even the least disciple of the old English water-color school. In the first place, the skill of laying a perfectly even and smooth tint with absolute precision of complex outline was attained to a degree which no amateur draughtsman can have the least conception of. Water-color, under the ordinary

sketcher's mismanagement, drops and dries pretty nearly to its own fancy,—slops over every outline, clots in every shade, seams itself with undesirable edges, speckles itself with inexplicable grit, and is never supposed capable of representing anything it is meant for, till most of it has been washed out. But the great primary masters of the trade could lay, with unerring precision of tone and equality of depth, the absolute tint they wanted without a flaw or a retouch; and there is perhaps no greater marvel of artistic practice and finely accurate intention existing, in a simple kind, greater than the study of a Yorkshire waterfall, by Girtin, now in the British Museum, in which every sparkle, ripple and current is left in frank light by the steady pencil which is at the same instant, and with the same touch, drawing the forms of the dark congeries of channeled rocks, while around them it disperses the glitter of their spray.

173. Then further, on such basis of well-laid primary tint, the old water-color men were wont to obtain their effects of atmosphere by the most delicate washes of transparent color, reaching subtleties of gradation in misty light, which were wholly unthought of before their time. In this kind the depth of far-distant brightness, freshness, and mystery of morning air with which Copley Fielding used to invest the ridges of the South Downs, as they rose out of the blue Sussex champaign, remains, and I believe must remain, insuperable, while his sense of beauty in the cloud-forms associated with higher mountains, enabled him to invest the comparatively modest scenery of our own island,—out of which he never traveled,—with a charm seldom attained by the most ambitious painters of Alp or Apennine.

174. I vainly tried in writing the last volume of 'Modern Painters' to explain, even to myself, the cause or nature of the pure love of mountains which in boyhood was the ruling passion of my life, and which is demonstrably the first motive of inspiration with Scott, Wordsworth, and Byron. The more I analyzed, the less I could either understand, or justify, the mysterious pleasure we all of us, great or small,

had in the land's being up and down instead of level; and the less I felt able to deny the claim of prosaic and ignobly-minded persons to be allowed to like it level, instead of up and down. In the end I found there was nothing for it but simply to assure those recusant and groveling persons that they were perfectly wrong, and that nothing could be expected, either in art or literature, from people who liked to live among snipes and widgeons.

175. Assuming it, therefore, for a moral axiom that the love of mountains was a heavenly gift, and the beginning of wisdom, it may be imagined, if we endured for their sakes any number of rainy days with philosophy, with what rapture the old painters were wont to hail the reappearance of their idols, with all their cataracts refreshed, and all their copse and crags respangled, flaming in the forehead of the morning sky. Very certainly and seriously there are no such emotions to be had out of the hedged field or ditched fen; and I have often charitably paused in my insistences in 'Fors Clavigera' that our squires should live from year's end to year's end on their own estates, when I reflected how many of their acres lay in Leicestershire and Lincolnshire, or even on duller levels, where there was neither good hunting nor duck-shooting.

176. I am only able to show you two drawings in illustration of these sentiments of the mountain school, and one of those is only a copy of a Robson, but one quite good enough to represent his manner of work and tone of feeling. He died young, and there may perhaps be some likeness to the gentle depth of sadness in Keats, traceable in his refusal to paint any of the leaping streams or bright kindling heaths of Scotland, while he dwells with a monotony of affection on the clear repose of the northern twilight, and on the gathering of the shadow in the mountain gorges, till all their forms were folded in one kingly shroud of purple death. But over these hours and colors of the scene his governance was all but complete; and even in this unimportant and imperfectly rendered example, the warmth of the departing

sunlight, and the depth of soft air in the recesses of the glen, are given with harmony more true and more pathetic than you will find in any recent work of even the most accomplished masters.

177. But of the loving labor, and severely disciplined observation, which prepared him for the expression of this feeling for chiaroscuro, you can only judge by examining at leisure his outlines of Scottish scenery, a work of whose existence I had no knowledge, until the kindness of Mrs. Inge advised me of it, and further, procured for me the loan of the copy of it laid on the table; which you will find has marks placed in it at the views of Byron's Lachin-y-Gair, of Scott's Ben Venue, and of all Scotsmen's Ben Lomond,—plates which you may take for leading types of the most careful delineation ever given to mountain scenery, for the love of it, pure and simple.

178. The last subject has a very special interest to *me*; and—if you knew all I could tell you, did time serve, of the associations connected with it—would be seen gratefully by you also. In the text descriptive of it, (and the text of this book is quite exceptionally sensible and useful, for a work of the sort,) Mr. Robson acknowledges his obligation for the knowledge of this rarely discovered view of Ben Lomond, to Sir Thomas Acland, the father of our own Dr. Henry Acland, the strength of whose whole life hitherto has been passed in the eager and unselfish service of the University of Oxford. His father was, of all amateur artists I ever knew, the best draughtsman of mountains, not with spasmodic force, or lightly indicated feeling, but with firm, exhaustive, and unerring delineation of their crystalline and geologic form. From him the faith in the beauty and truth of natural science in connection with art was learned happily by his physician-son, by whom, almost unaided, the first battles were fought—and fought hard—before any of you eager young physicists were born, in the then despised causes of natural science and industrial art. That cause was in the end sure of victory, but here in Oxford its triumph would have been long

deferred, had it not been for the energy and steady devotion of Dr. Acland. Without him—little as you may think it—the great galleries and laboratories of this building, in which you pursue your physical-science studies so advantageously, and so forgetfully of their first advocate, would not yet have been in existence. Nor, after their erection, (if indeed in this there be any cause for your thanks,) would an expositor of the laws of landscape beauty have had the privilege of addressing you under their roof.

179. I am indebted also to one of my Oxford friends, Miss Symonds, for the privilege of showing you, with entire satisfaction, a perfectly good and characteristic drawing by Copley Fielding, of Cader Idris, seen down the vale of Dolgelly; in which he has expressed with his utmost skill the joy of his heart in the aerial mountain light, and the iridescent wildness of the mountain foreground; nor could you see enforced with any sweeter emphasis the truth on which Mr. Morris dwelt so earnestly in his recent address to you—that the excellence of the work is, *cæteris paribus*, in proportion to the joy of the workman.

180. There is a singular character in the coloring of Fielding, as he uses it to express the richness of beautiful vegetation; he makes the sprays of it look partly as if they were strewn with jewels. He is of course not absolutely right in this; to some extent it is a conventional exaggeration—and yet it has a basis of truth which excuses, if it does not justify, this expression of his pleasure; for no color can possibly represent vividly enough the charm of radiance which you can see by looking closely at dew-sprinkled leaves and flowers.

181. You must ask Professor Clifton to explain to you why it is that a drop of water, while it subdues the hue of a green leaf or blue flower into a soft gray, and shows itself therefore on the grass or the dock-leaf as a lustrous dimness, enhances the force of all warm colors, so that you never can see what the color of a carnation or a wild rose really is till you get the dew on it. The effect is, of course, only general-

ized at the distance of a paintable foreground; but it is always in reality part of the emotion of the scene, and justifiably sought in any possible similitude by the means at our disposal.

182. It is with still greater interest and reverence to be noted as a physical truth that in states of joyful and healthy excitement the eye becomes more highly sensitive to the beauty of color, and especially to the blue and red rays, while in depression and disease all color becomes dim to us, and the yellow rays prevail over the rest, even to the extremity of jaundice. But while I direct your attention to these deeply interesting conditions of sight, common to the young and old, I must warn you of the total and most mischievous fallacy of the statements put forward a few years ago by a foreign oculist, respecting the changes of sight in old age. I neither know, nor care, what states of senile disease exist when the organ has been misused or disused; but in all cases of disciplined and healthy sight, the sense of color and form is absolutely one and the same from childhood to death.

183. When I was a boy of twelve years old, I saw nature with Turner's eyes, he being then sixty; and I should never have asked permission to resume the guidance of your schools, unless now, at sixty-four, I saw the same hues in heaven and earth as when I walked a child by my mother's side.

Neither may you suppose that between Turner's eyes, and yours, there is any difference respecting which it may be disputed whether of the two is right. The sight of a great painter is as authoritative as the lens of a camera lucida; he perceives the form which a photograph will ratify; he is sensitive to the violet or to the golden ray to the last precision and gradation of the chemist's defining light and intervalled line. But the veracity, as the joy, of this sensation,—and the one involves the other,—are dependent, as I have said, first on vigor of health, and secondly on the steady looking for and acceptance of the truth of nature as *she* gives it you, and not as you like to have it—to inflate your own

pride, or satisfy your own passion. If pursued in that insolence, or in that concupiscence, the phenomena of all the universe become first gloomy, and then spectral; the sunset becomes demoniac fire to you, and the clouds of heaven as the smoke of Acheron.

184. If there is one part more than another which in my early writing deservedly obtained audience and acceptance, it was that in which I endeavored to direct the thoughts of my readers to the colors of the sky, and to the forms of its clouds. But it has been my fate to live and work in direct antagonism to the instincts, and yet more to the interests, of the age; since I wrote that chapter on the pure traceries of the vault of morning, the fury of useless traffic has shut the sight, whether of morning or evening, from more than the third part of England; and the foulness of sensual fantasy has infected the bright beneficence of the life-giving sky with the dull horrors of disease, and the feeble falsehoods of insanity. In the book * professing to initiate a child in the elements of natural science, of which I showed you the average character of illustration at my last lecture, there is one chapter especially given to aerial phenomena—wherein the cumulus cloud is asserted to occur “either under the form of a globe or a half globe,” and in such shape to present the most exciting field for the action of imagination. What the French artistic imagination is supposed to produce, under the influence of this excitement, we find represented by a wood-cut, of which Mr. Macdonald has reproduced for you the most sublime portion. May I, for a minute or two, delay, and prepare you for, its enjoyment by reading the lines in which Wordsworth describes the impression made on a cultivated and pure-hearted spectator, by the sudden opening of the sky after storm?—

“ A single step, that freed me from the skirts
Of the blind vapor, opened to my view
Glory beyond all glory ever seen
By waking sense or by the dreaming soul !

* Ante, § 132.

The appearance, instantaneously disclosed,
 Was of a mighty city—boldly say
 A wilderness of building, sinking far
 And self-withdrawn into a boundless depth,
 Far-sinking into splendor—without end !
 Fabric it seemed of diamond and of gold,
 With alabaster domes, and silver spires,
 And blazing terrace upon terrace, high
 Uplifted ; here, serene pavilions bright,
 In avenues disposed ; there, towers begirt
 With battlements that on their restless fronts
 Bore stars—illumination of all gems !
 By earthly nature had the effect been wrought
 Upon the dark materials of the storm
 Now pacified ; on them, and on the coves
 And mountain-steeps and summits, whereunto
 The vapors had receded, taking there
 Their station under a cerulean sky.”

185. I do not mean wholly to ratify this Wordsworthian statement of *Arcana Cœlestia*, since, as far as I know clouds myself, they look always like clouds, and are no more walled like castles than backed like weasels. And farther, observe that no great poet ever tells you that he saw something finer than anybody ever saw before. Great poets try to describe what all men see, and to express what all men feel ; if they cannot describe it, they let it alone ; and what they say, say ‘boldly’ always, without advising their readers of that fact.

186. Nevertheless, though extremely feeble poetry, this piece of bold Wordsworth is at least a sincere effort to describe what was in truth to the writer a most rapturous vision,—with which we may now compare to our edification the sort of object which the same sort of cloud suggests to the modern French imagination.

It would be surely superfluous to tell you that this representation of cloud is as false as it is monstrous ; but the point which I wish principally to enforce on your attention is that all this loathsome and lying defacement of book pages, which looks as if it would end in representing humanity only in its skeleton, and nature only in her ashes, is all of it founded first on the desire to make the volume salable at small cost,

and attractive to the greatest number, on whatever terms of attraction.

187. The significant change which Mr. Morris made in the title of his recent lecture, from Art and *Democracy*, to Art and *Plutocracy*, strikes at the root of the whole matter; and with wider sweep of blow than he permitted himself to give his words. The changes which he so deeply deplored, and so grandly resented, in this once loveliest city, are due wholly to the deadly fact that her power is now dependent on the Plutocracy of Knowledge, instead of its Divinity. There are indeed many splendid conditions in the new impulses with which we are agitated,—or it may be inspired: but against one of them, I must warn you, in all affection and in all duty.

188. So far as you come to Oxford in order to get your living out of her, you are ruining both Oxford and yourselves. There never has been, there never can be, any other law respecting the wisdom that is from above, than this one precept,—“Buy the Truth, and sell it not.” It is to be costly to you—of labor and patience; and you are never to sell it, but to guard, and to give.

Much of the enlargement, though none of the defacement, of old Oxford is owing to the real life and the honest seeking of extended knowledge. But more is owing to the supposed money value of that knowledge; and exactly so far forth, her enlargement is purely injurious to the University and to her scholars.

189. In the department of her teaching, therefore, which is intrusted to my care, I wish it at once to be known that I will entertain no question of the salability of this or that manner of art; and that I shall steadily discourage the attendance of students who propose to make their skill a source of income. Not that the true laborer is unworthy of his hire, but that, above all in the beginning and first choice of industry, his heart must not be the heart of an hireling.

You may, and with some measure of truth, ascribe this determination in me to the sense of my own weakness and

want of properly so-called artistic gift. That is indeed so: there are hundreds of men better qualified than I to teach practical technique: and, in their studios, all persons desiring to be artists should place themselves. But I never would have come to Oxford, either before or now, unless in the conviction that I was able to direct her students precisely in that degree and method of application to art which was most consistent with the general and perpetual functions of the University.

190. Now, therefore, to prevent much future disappointment and loss of time both to you and to myself, let me forewarn you that I will not assist out of the schools, nor allow in them, modes of practice taken up at each student's fancy.

In the classes, the modes of study will be entirely fixed; and at your homes I cannot help you, unless you work in accordance with the class rules,—which rules, however, if you do follow, you will soon be able to judge and feel for yourselves, whether you are doing right and getting on, or otherwise. This I tell you with entire confidence, because the illustrations and examples of the modes of practice in question, which I have been showing you in the course of these lectures, have been furnished to me by young people like yourselves; like, in all things, except only,—so far as they are to be excepted at all,—in the perfect repose of mind, which has been founded on a simply believed, and unconditionally obeyed, religion.

191. On the *repose* of mind, I say; and there is a singular physical truth illustrative of that spiritual life and peace which I must yet detain you by indicating in the subject of our study to-day. You see how this foulness of false imagination represents, in every line, the clouds not only as monstrous,—but *tumultuous*. Now all lovely clouds, remember, are *quiet* clouds,—not merely quiet in appearance, because of their greater height and distance, but quiet actually, fixed for hours, it may be, in the same form and place. I have seen a fair-weather cloud high over Coniston Old Man,—not *on* the hill, observe, but a vertical mile above it,—

stand motionless—changeless,—for twelve hours together. From four o'clock in the afternoon of one day I watched it through the night by the north twilight, till the dawn struck it with full crimson, at four of the following July morning. What is glorious and good in the heavenly cloud, you can, if you will, bring also into your lives,—which are indeed like it, in their vanishing, but how much more in their *not* vanishing, till the morning take them to itself. As this ghastly fantasy of death is to the mighty clouds of which it is written, 'The chariots of God are twenty thousand, even thousands of angels,' are the fates to which your passion may condemn you,—or your resolution raise. You may drift with the frenzy of the whirlwind,—or be fastened for your part in the pacified effulgence of the sky. Will you not let your lives be lifted up, in fruitful rain for the earth, in scathless snow to the sunshine,—so blessing the years to come, when the surest knowledge of England shall be of the will of her heavenly Father, and the purest art of England be the inheritance of her simplest children?

APPENDIX.

192. THE foregoing lectures were written, among other reasons, with the leading object of giving some permanently rational balance between the rhapsodies of praise and blame which idly occupied the sheets of various magazines last year on the occasion of the general exhibition of Rossetti's works; and carrying forward the same temperate estimate of essential value in the cases of other artists—or artistes—of real, though more or less restricted, powers, whose works were immediately interesting to the British public, I have given this balance chiefly in the form of qualified, though not *faint*, praise, which is the real function of just criticism; for the multitude can always see the faults of good work, but never, unaided, its virtues: on the contrary, it is equally quick-sighted to the vulgar merits of bad work, but no tuition will enable it to condemn the vices with which it has a natural sympathy; and, in general, the blame of them is wasted on its deaf ears.

When the course was completed, I found that my audiences had been pleased by the advisedly courteous tone of comment to which I had restricted myself: and I received not a few congratulations on the supposed improvement of my temper and manners, under the stress of age and experience. The tenor of this terminal lecture may perhaps modify the opinion of my friends in these respects; but the observations it contains are entirely necessary in order to complete the serviceableness, such as it may be, of all the preceding statements.

193. In the first place, may I ask the reader to consider with himself why British painters, great or small, are never right *altogether*? Why their work is always, somehow,

flawed,—never in any case, or even in any single picture, thorough? Is it not a strange thing, and a lamentable, that no British artist has ever lived, of whom one can say to a student, “Imitate him—and prosper”; while yet the great body of minor artists are continually imitating the master who chances to be in fashion; and any popular mistake will carry a large majority of the Britannic mind into laboriously identical blunder, for two or three artistic generations?

194. I had always intended to press this question home on my readers in my concluding lecture; but it was pressed much more painfully home on myself by the recent exhibition of Sir Joshua at Burlington House and the Grosvenor. There is no debate that Sir Joshua is the greatest figure-painter whom England has produced,—Gainsborough being sketchy and monotonous * in comparison, and the rest virtually out of court. But the gathering of any man’s work into an unintending mass, enforces his failings in sickening iteration, while it levels his merits in monotony;—and after shrinking, here, from affectation worthy only of the Bath Parade, and mourning, there, over negligence ‘fit for a fool to fall by,’ I left the rooms, really caring to remember nothing, except the curl of hair over St. Cecilia’s left ear, the lips of Mrs. Abington, and the wink of Mrs. Nesbitt’s white cat.†

195. It is true that I was tired, and more or less vexed with myself, as well as with Sir Joshua; but no bad humor of mine alters the fact, that Sir Joshua was always affected,—often negligent,—sometimes vulgar,—and never sublime; and that, in this collective representation of English Art under highest patronage and of utmost value, it was seen, broadly speaking, that neither the painter knew how to paint, the patron to preserve, nor the cleaner to restore.

If this be true of Sir Joshua, and of the public of Lords

* “How *various* the fellow is!” Gainsborough himself, jealous of Sir Joshua at the ‘private view.’

† The pictures were Mrs. Sheridan as St. Cecilia (Lord Lansdowne), No. 209 in the R.A.; Mrs. Abington as Miss Prue (Sir C. Miles), and Mrs. Nesbitt as Circe, Nos. 7 and 11 in the Grosvenor Gallery.

and Ladies for whom he worked,—what are we to say of the multitude of entirely uneducated painters, competing for the patronage of entirely uneducated people; and filling our annual exhibitions, no more with what Carlyle complains of as the Correggiosities of Correggio, but with what perhaps may be enough described and summed under the simply reversed phrase—the Incoreggiosities of Incoreggio?

196. And observe that the gist of this grievous question is that our English errors are those of very amiable and worthy people, conscientious after a sort, working under honorable encouragement, and entirely above the temptations which betray the bulk of the French and Italian schools into sharing or consulting the taste only of the demi-monde.

The French taste in this respect is indeed widely and rapidly corrupting our own, but such corruption is recognizable at once as disease: it does not in the least affect the broad questions concerning all English artists that ever were or are,—why Hunt can paint a flower, but not a cloud; Turner, a cloud, but not a flower;—Bewick, a pig, but not a girl; and Miss Greenaway a girl, but not a pig.

As I so often had to say in my lecture on the inscrutability of Clouds, I leave the question with you, and pass on.

197. But, extending the inquiry beyond England, to the causes of failure in the art of foreign countries, I have especially to signalize the French contempt for the 'Art de Province,' and the infectious insanity for centralization, throughout Europe, which collects necessarily all the vicious elements of any country's life into one mephitic cancer in its center.

All great art, in the great times of art, is *provincial*, showing its energy in the capital, but educated, and chiefly productive, in its own country town. The best works of Correggio are at Parma, but he lived in his patronymic village; the best works of Cagliari at Venice, but he learned to paint at Verona; the best works of Angelico are at Rome, but he lived at Fésolo; the best works of Luini at Milan, but he lived at Luino. And, with still greater necessity of

moral law, the cities which exercise forming power on style, are themselves provincial. There is no Attic style, but there is a Doric and Corinthian one. There is no Roman style, but there is an Umbrian, Tuscan, Lombard, and Venetian one. There is no Parisian style, but there is a Norman and Burgundian one. There is no London or Edinburgh style, but there is a Kentish and Northumbrian one.

198. Farther,—the tendency to centralization, which has been fatal to art in all times, is, at *this* time, pernicious in totally unprecedented degree, because the capitals of Europe are all of monstrous and degraded architecture. An artist in former ages might be corrupted by the manners, but he was exalted by the splendor, of the capital; and perished amidst magnificence of palaces: but now—the Board of Works is capable of no higher skill than drainage, and the British artist floats placidly down the maximum current of the National Cloaca, to his Dunciad rest, content, virtually, that his life should be spent at one end of a cigar, and his fame expire at the other.

In literal and fatal instance of fact—think what ruin it is for men of any sensitive faculty to live in such a city as London is now! Take the highest and lowest state of it: you have, typically, Grosvenor Square,—an aggregation of bricks and railings, with not so much architectural faculty expressed in the whole cumber of them as there is in a wasp's nest or a worm-hole;—and you have the rows of houses which you look down into on the south side of the South-Western line, between Vauxhall and Clapham Junction. Between those two ideals the London artist must seek his own; and in the humanity, or the vermin, of them, worship the aristocratic and scientific gods of living Israel.

199. In the chapter called 'The Two Boyhoods' of 'Modern Painters,' I traced, a quarter of a century ago, the difference between existing London and former Venice, in their effect, as schools of art, on the minds of Turner and Giorgione. I would reprint the passage here: but it needs expansion and comment, which I hope to give, with

other elucidatory notes on former texts, in my October lectures. But since that comparison was written, a new element of evil has developed itself against art, which I had not then so much as seen the slightest beginnings of. The description of the school of Giorgione ends ('Modern Painters,' vol. v.) with this sentence,—

“Ethereal strength of Alps, dreamlike, vanishing in high procession beyond the Torcellan shore; blue islands of Paduan hills, poised in the golden west. Above, free winds and *fery* clouds ranging at their will; *brightness out of the north, and balm from the south*, and the Stars of the Evening and Morning clear in the limitless light of arched heaven and circling sea.”

Now, if I had written that sentence with foreknowledge of the approach of those malignant aerial phenomena which, beginning ten years afterwards, were to induce an epoch of continual diminution in the depth of the snows of the Alps, and a parallel change in the relations of the sun and sky to organic life, I could not have set the words down with more concentrated precision, to express the beautiful and healthy states of natural cloud and light, to which the plague-cloud and plague-wind of the succeeding era were to be opposed. Of the physical character of these, some account was rendered in my lectures at the London Institution; of their effect on the artistic power of our time, I have to speak now; and it will be enough illustrated by merely giving an accurate account of the weather yesterday (20th May, 1884).

200. Most people would have called it a fine day; it was, as compared with other days of this spring, exceptionally clear: Helvellyn, at a distance of fifteen miles, showing his grassy sides as if one could reach them in an hour's walk. The sunshine was warm and full, and I went out at three in the afternoon to superintend the weeding a bed of wild raspberries on the moor. I had put no upper coat on—and the moment I got out of shelter of the wood, found that there was a brisk and extremely cold wind blowing steadily from the south-west—*i. e.*, straight over Black Coomb from the

sea. Now, it is perfectly normal to have keen *east* wind with a bright sun in March, but to have keen *south-west* wind with a bright sun on the 20th of May is entirely abnormal, and destructive to the chief beauty and character of the best month in the year.

I have only called the wind keen,—bitter, would have been nearer the truth; even a young and strong man could not have stood inactive in it with safety for a quarter of an hour; and the danger of meeting it full after getting hot in any work under shelter was so great that I had instantly to give up all idea of gardening, and went up to the higher moor to study the general state of color and light in the hills and sky.

201. The sun was—the reader may find how high for himself, three o'clock P.M., on 20th May, in latitude 55° : at a guess 40 degrees; and the entire space of sky under him to the horizon—and far above him towards the zenith—say 40 degrees all round him, was a dull pale gray, or dirty white,—very full of light, but totally devoid of color or sensible gradation. Common flake-white deadened with a little lampblack would give all the color there was in it,—a mere tinge of yellow ocher near the sun. This lifeless stare of the sky changed gradually towards the zenith into a dim grayish blue, and then into definite blue,—or at least what most people would call blue, opposite the sun answering the ordinary purpose of blue pretty well, though really only a bluish gray. The main point was to ascertain as nearly as possible the depth of it, as compared with other tints and lights.

202. Holding my arm up against it so as to get the shirt sleeve nearly in full sunlight, but with a dark side of about a quarter its breadth, I found the sky quite vigorously dark against the white of the sleeve, yet vigorously also detached in light beyond its dark side. Now the dark side of the shirt sleeve was pale gray compared to the sunlighted color of my coat sleeve. And that again was luminous compared to its own dark side, and that dark side was still not black. Count

the scale thus obtained. You begin at the bottom with a tint of russet not reaching black; you relieve this distinctly against a lighter russet, you relieve that strongly against a pale warm gray, you relieve that against the brightest white you can paint. Then the sky-blue is to be clearly lighter than the pale warm gray, and yet as clearly darker than the white.

203. Any landscape artist will tell you that this opposition cannot be had in painting with its natural force;—and that in all pictorial use of the effect, either the dark side must be exaggerated in depth, or the relief of the blue from it sacrificed. But, though I began the study of such gradation just half a century ago, carrying my “cyanometer” as I called it—(a sheet of paper gradated from deepest blue to white), with me always through a summer’s journey on the Continent in 1835, I never till yesterday felt the full difficulty of explaining the enormous power of contrast which the real light possesses in its most delicate tints. I note this in passing for future inquiry; at present I am concerned only with the main fact that the *darkest part of the sky-blue opposite the sun* was lighter, by much, than pure white in the shade in open air—(that is to say, lighter by much than the margin of the page of this book as you read it)—and that therefore the total effect of the landscape was of diffused cold light, against which the hills rose clear, but monotonously gray or dull green—while the lake, being over the whole space of it agitated by strong wind, took no reflections from the shores, and was nothing but a flat piece of the same gray as the sky, traversed by irregular blackness from more violent squalls. The clouds, considerable in number, were all of them alike shapeless, colorless, and lightless, like dirty bits of wool, without any sort of arrangement or order of action, yet not quiet;—touching none of the hills, yet not high above them; and whatever character they had, enough expressible by a little chance rubbing about of the brush charged with cleanings of the palette.

204. Supposing now an artist in the best possible frame

of mind for work, having his heart set on getting a good Coniston subject; and any quantity of skill, patience, and whatsoever merit you choose to grant him,—set, this day, to make his study; what sort of a study can he get? In the first place, he must have a tent of some sort—he cannot sit in the wind—and the tent will be always unpegging itself and flapping about his ears—(if he tries to sketch quickly, the leaves of his sketch-book will all blow up into his eyes*);—next, he cannot draw a leaf in the foreground, for they are all shaking like aspens; nor the branch of a tree in the middle distance, for they are all bending like switches; nor a cloud, for the clouds have no outline; nor even the effect of waves on the lake surface, for the catspaws and swirls of wind drive the dark spaces over it like feathers. The entire form-value of the reflections, the color of them and the sentiment, are lost; (were it sea instead of lake, there would be no waves, to call waves, but only dodging and swinging lumps of water—dirty or dull blue according to the nearness to coast). The mountains have no contrast of color, nor any positive beauty of it: in the distance they are not blue, and though clear for the present, are sure to be dim in an hour or two, and will probably disappear altogether towards evening in mere gray smoke.

What sort of a study can he make? What sort of a picture? He has got his bread to win, and *must* make his canvas attractive to the public—somehow. What resource has he, but to try by how few splashes he can produce something like hills and water, and put in the vegetables out of his head?—according to the last French fashion.

205. Now, consider what a landscape painter's work used to be, in ordinary spring weather of old times. You put your lunch in your pocket, and set out, any fine morning, sure that, unless by a mischance which needn't be calculated on, the forenoon, and the evening, would be fine too. You chose two subjects handily near each other, one for A.M., the

* No artist who knows his business ever uses a block book.

other for P.M.; you sat down on the grass where you liked, worked for three or four hours serenely, with the blue shining through the stems of the trees like painted glass, and not a leaf stirring; the grasshoppers singing, flies sometimes a little troublesome, ants, also, it might be. Then you ate your lunch—lounged a little after it—perhaps fell asleep in the shade, woke in a dream of whatever you liked best to dream of,—set to work on the afternoon sketch,—did as much as you could before the glow of the sunset began to make everything beautiful beyond painting: you meditated awhile over that impossible, put up your paints and book, and walked home, proud of your day's work, and peaceful for its future, to supper.

This is neither fancy,—nor exaggeration. I have myself spent literally thousands of such days in my forty years of happy work between 1830 and 1870.

206. I say nothing of the gain of time, temper, and steadiness of hand, under such conditions, as opposed to existing ones; but we must, in charity, notice as one inevitable cause of the loose and flimsy tree-drawing of the moderns, as compared with that of Titian or Mantegna, the quite infinite difference between the look of blighted foliage quivering in confusion against a sky of the color of a pail of whitewash with a little starch in it; and the motionless strength of olive and laurel leaf, inlaid like the wreaths of a Florentine mosaic on a ground of lapis-lazuli.

I have, above, supposed the effects of these two different kinds of weather on mountain country, and the reader might think the difference of that effect would be greatest in such scenery. But it is in reality greater still in lowlands; and the malignity of climate most felt in common scenes. If the heath of a hill side is blighted,—(or burnt into charcoal by an improving farmer,) the form of the rock remains, and its impression of power. But if the hedges of a country lane are frizzled by the plague wind into black tea,—what have you left? If the reflections in the lake are destroyed by wind, its ripples may yet be graceful,—or its waves

sublime;—but if you take the reflections out of a ditch, what remains for you but—ditch-water? Or again, if you take the sunshine from a ravine or a cliff; or flood with rain their torrents or waterfalls, the sublimity of their forms may be increased, and the energy of their passion; but take the sunshine from a cottage porch, and drench into decay its hollyhock garden, and you have left to you—how much less, how much worse than nothing?

207. Without in the least recognizing the sources of these evils, the entire body of English artists, through the space now of some fifteen years, (quite enough to paralyze, in the young ones, what in their nature was most sensitive,) have been thus afflicted by the deterioration of climate described in my lectures given this last spring in London. But the deteriorations of noble subject induced by the progress of manufactures and engineering are, though also without their knowledge, deadlier still to them.

208. It is continually alleged in Parliament, by the railroad, or building, companies, that they propose to render beautiful places more accessible or habitable, and that their 'works' will be, if anything, decorative rather than destructive to the better civilized scene. But in all these cases, admitting, (though there is no ground to admit) that such arguments may be tenable, I observe that the question of sentiment proceeding from association is always omitted. And in the minds even of the least educated and least spiritual artists, the influence of association is strong beyond all their consciousness, or even belief.

Let me take, for instance, four of the most beautiful and picturesque subjects once existing in Europe,—Furness Abbey, Conway Castle, the Castle of Chillon, and the Falls of Schaffhausen. A railroad station has been set up within a hundred yards of the Abbey,—an iron railroad bridge crosses the Conway in front of its castle; a stone one crosses the Rhine at the top of its cataract, and the great Simplon line passes the end of the drawbridge of Chillon. Since these improvements have taken place, no picture of any of

these scenes has appeared by any artist of eminence, nor can any in future appear. Their portraiture by men of sense or feeling has become for ever impossible. Discord of color may be endured in a picture—discord of sentiment, never. There is no occasion in such matters for the protest of criticism. The artist turns unconsciously—but necessarily—from the disgraced noblesse of the past, to the consistent baseness of the present; and is content to paint whatever he is in the habit of seeing, in the manner he thinks best calculated to recommend it to his customers.

209. And the perfection of the mischief is that the very few who are strong enough to resist the money temptation, (on the complexity and fatality of which it is not my purpose here to enlarge,) are apt to become satirists and reformers, instead of painters; and to lose the indignant passion of their freedom no less vainly than if they had sold themselves with the rest into slavery. Thus Mr. Herkomer, whose true function was to show us the dancing of Tyrolese peasants to the pipe and zither, spends his best strength in painting a heap of promiscuous emigrants in the agonies of starvation: and Mr. Albert Goodwin, whom I have seen drawing, with Turnerian precision, the cliffs of Orvieto and groves of Vallombrosa, must needs moralize the walls of the Old Water-Color Exhibition with a scattering of skeletons out of the ugliest scenes of the 'Pilgrim's Progress,' and a ghastly sunset, illustrating the progress—in the contrary direction—of the manufacturing districts. But in the plurality of cases the metropolitan artist passively allows himself to be metropolized, and contents his pride with the display of his skill in recommending things ignoble. One of quite the best, and most admired, pieces of painting in the same Old Water-Color Exhibition was Mr. Marshall's fog effect over the Westminster cab-stand; while, in the Royal Institution, Mr. Severn in like manner spent all his power of rendering sunset light in the glorification of the Westminster clock tower. And although some faint yearnings for the rural or marine are still unextinguished in the breasts of the elder

academicians, or condescendingly tolerated in their sitters by the younger ones,—though Mr. Leslie still disports himself occasionally in a punt at Henley, and Mr. Hook takes his summer lodgings, as usual, on the coast, and Mr. Collier admits the suggestion of the squire's young ladies, that they may gracefully be painted in a storm of primroses,—the shade of the Metropolis never for an instant relaxes its grasp on their imagination; Mr. Leslie cannot paint the barmaid at the Angler's Rest, but in a pair of high-heeled shoes; Mr. Hook never lifts a wave which would be formidable to a trim-built wherry; and although Mr. Fildes brought some agreeable arrangements of vegetables from Venice; and, in imitation of old William Hunt, here and there some primroses in tumblers carried out the sentiment of Mr. Collier's on the floor,—not all the influence of Mr. Matthew Arnold and the Wordsworth Society together obtained, throughout the whole concourse of the Royal or plebeian salons of the town, the painting of so much as one primrose nested in its rock, or one branch of wind-tossed eglantine.

210. As I write, a letter from Miss Alexander is put into my hands, of which, singularly, the closing passage alludes to the picture of Giorgione's, which I had proposed, in terminating this lecture, to give, as an instance of the undisturbed art of a faultless master. It is dated "Bassano Veneto, May 27th," and a few sentences of the preceding context will better present the words I wish to quote.

"I meant to have told you about the delightful old lady whose portrait I am taking. Edwige and I set out early in the morning, and have a delightful walk up to the city, and through the clean little streets with their low Gothic arcades and little carved balconies full of flowers; meeting nobody but *contadini*, mostly women, who, if we look at them, bow, and smile, and say 'Serva sua.' The old lady told us she was always ready to begin her sitting by six o'clock, having then finished morning prayers and breakfast: pretty well for eighty-five, I think: (she says that is her age). I had forgotten until this minute I had promised to tell you about

our visit to Castelfranco. We had a beautiful day, and had the good fortune to find a fair going on, and the piazza full of contadini, with fruit, chickens, etc., and many pretty things in wood and basket work. Always a pretty sight; but it troubled me to see so many beggars, who looked like respectable old people. I asked Loredana about it, and she said they *were* contadini, and that the poverty among them was so great, that although a man could live, poorly, by his work, he could never lay by anything for old age, and when they are past work they have to beg. I cannot feel as if that were right, in such a rich and beautiful country, and it is certainly not the case on the estate of Marina and Silvia; but I am afraid, from what I hear, that our friends are rather exceptional people. Count Alessandro, Marina's husband, always took an almost paternal care of his contadini, but with regard to other contadini in these parts, I have heard some heart-breaking stories, which I will not distress you by repeating. Giorgione's Madonna, whenever I see it, always appears to me more beautiful than the last time, and does not look like the work of a mortal hand. It reminds me of what a poor woman said to me once in Florence, 'What a pity that people are not as large now as they used to be!' and when I asked her what made her suppose that they were larger in old times, she said, looking surprised, 'Surely you cannot think that the people who built the Duomo were no larger than *we* are?'"

Anima Toscana gentilissima,—truly we cannot think it, but larger of heart than you, no;—of thought, yes.

211. It has been held, I believe, an original and valuable discovery of Mr. Taine's that the art of a people is the natural product of its soil and surroundings.

Allowing the art of Giorgione to be the wild fruitage of Castelfranco, and that of Brunelleschi no more than the exhalation of the marsh of Arno; and perceiving as I do the existing art of England to be the mere effluence of Grosvenor Square and Clapham Junction,—I yet trust to induce in my readers, during hours of future council, some doubt whether

Grosvenor Square and Clapham Junction be indeed the natural and divinely appointed produce of the Valley of the Thames.

BRANTWOOD,

Whit-Tuesday, 1884.

THE PLEASURES OF ENGLAND.

THE
PLEASURES OF ENGLAND.

LECTURE I.

THE PLEASURES OF LEARNING.

BERTHA TO OSBURGA.

Delivered 18th and 20th October, 1884.

1. IN the short review of the present state of English Art, given you last year, I left necessarily many points untouched, and others unexplained. The seventh lecture, which I did not think it necessary to read aloud, furnished you with some of the corrective statements of which, whether spoken or not, it was extremely desirable that you should estimate the balancing weight. These I propose in the present course farther to illustrate, and to arrive with you at, I hope, a just—you would not wish it to be a flattering—estimate of the conditions of our English artistic life, past and present, in order that with due allowance for them we may determine, with some security, what those of us who have faculty ought to do, and those who have sensibility, to admire.

2. In thus rightly doing and feeling, you will find summed a wider duty, and granted a greater power, than the moral philosophy at this moment current with you has ever conceived; and a prospect opened to you besides, of such a Future for England as you may both hopefully and proudly labor for with your hands, and those of you who are spared to

the ordinary term of human life, even see with your eyes, when all this tumult of vain avarice and idle pleasure, into which you have been plunged at birth, shall have passed into its appointed perdition.

3. I wish that you would read for introduction to the lectures I have this year arranged for you, that on the Future of England, which I gave to the cadets at Woolwich in the first year of my Professorship here, 1869; and which is now placed as the main conclusion of the "Crown of Wild Olive": and with it, very attentively, the close of my inaugural lecture given here; for the matter, no less than the tenor of which, I was reproved by all my friends, as irrelevant and ill-judged;—which, nevertheless, is of all the pieces of teaching I have ever given from this chair, the most pregnant and essential to whatever studies, whether of Art or Science, you may pursue, in this place or elsewhere, during your lives.

4. The opening words of that passage I will take leave to read to you again,—for they must still be the ground of whatever help I can give you, worth your acceptance.

"There is a destiny now possible to us—the highest ever set before a nation to be accepted or refused. We are still undegenerate in race: a race mingled of the best northern blood. We are not yet dissolute in temper, but still have the firmness to govern, and the grace to obey. We have been taught a religion of pure mercy, which we must either now finally betray, or learn to defend by fulfilling. And we are rich in an inheritance of honor, bequeathed to us through a thousand years of noble history, which it should be our daily thirst to increase with splendid avarice; so that Englishmen, if it be a sin to covet honor, should be the most offending souls alive. Within the last few years we have had the laws of natural science opened to us with a rapidity which has been blinding by its brightness; and means of transit and communication given to us, which have made but one kingdom of the habitable globe.

"One kingdom";—but who is to be its king? Is there to be no king in it, think you, and every man to do that which

is right in his own eyes? Or only kings of terror, and the obscene empires of Mammon and Belial? Or will you, youths of England, make your country again a royal throne of kings; a sceptered isle; for all the world a source of light, a center of peace; mistress of Learning and of the Arts;—faithful guardian of great memories in the midst of irreverent and ephemeral visions—faithful servant of time-tried principles, under temptation from fond experiments and licentious desires; and amidst the cruel and clamorous jealousies of the nations, worshiped in her strange valor, of good-will towards men?

5. The fifteen years that have passed since I spoke these words must, I think, have convinced some of my immediate hearers that the need for such an appeal was more pressing than they then imagined;—while they have also more and more convinced me myself that the ground I took for it was secure, and that the youths and girls now entering on the duties of active life are able to accept and fulfill the hope I then held out to them.

In which assurance I ask them to-day to begin the examination with me, very earnestly, of the question laid before you in that seventh of my last year's lectures, whether London,* as it is now, be indeed the natural, and therefore the heaven-appointed outgrowth of the inhabitation, these 1800 years, of the valley of the Thames by a progressively instructed and disciplined people; or if not, in what measure and manner the aspect and spirit of the great city may be possibly altered by your acts and thoughts.

6. In my introduction to the Economist of Xenophon I said that every fairly educated European boy or girl ought to learn the history of five cities,—Athens, Rome, Venice, Florence, and London; that of London including, or at least compelling in parallel study, some knowledge also of the history of Paris.

A few words are enough to explain the reasons for this choice. The history of Athens, rightly told, includes all

* Ante, "The Art of England," § 198.

that need be known of Greek religion and arts. That of Rome, the victory of Christianity over Paganism; those of Venice and Florence sum the essential facts respecting the Christian arts of Painting, Sculpture, and Music; and that of London, in her sisterhood with Paris, the development of Christian Chivalry and Philosophy, with their exponent art of Gothic architecture.

Without the presumption of forming a distinct design, I yet hoped at the time when this division of study was suggested, with the help of my pupils, to give the outlines of their several histories during my work in Oxford. Variousy disappointed and arrested, alike by difficulties of investigation and failure of strength, I may yet hope to lay down for you, beginning with your own metropolis, some of the lines of thought in following out which such a task might be most effectively accomplished.

7. You observe that I speak of architecture as the chief exponent of the feelings both of the French and English races. Together with it, however, most important evidence of character is given by the illumination of manuscripts, and by some forms of jewelry and metallurgy: and my purpose in this course of lectures is to illustrate by all these arts the phases of national character which it is impossible that historians should estimate, or even observe, with accuracy, unless they are cognizant of excellence in the aforesaid modes of structural and ornamental craftsmanship.

8. In one respect, as indicated by the title chosen for this course, I have varied the treatment of their subject from that adopted in all my former books. Hitherto, I have always endeavored to illustrate the personal temper and skill of the artist; holding the wishes or taste of his spectators at small account, and saying of Turner you ought to like him, and of Salvator, you ought not, etc., etc., without in the least considering what the genius or instinct of the spectator might otherwise demand, or approve. But in the now attempted sketch of Christian history, I have approached every question from the people's side, and examined the nature, not of the

special faculties by which the work was produced, but of the general instinct by which it was asked for, and enjoyed. Therefore I thought the proper heading for these papers should represent them as descriptive of the *Pleasures* of England, rather than of its *Arts*.

9. And of these pleasures, necessarily, the leading one was that of Learning, in the sense of receiving instruction;—a pleasure totally separate from that of finding out things for yourself,—and an extremely sweet and sacred pleasure, when you know how to seek it, and receive.

On which I am the more disposed, and even compelled, here to insist, because your modern ideas of Development imply that you must all turn out what you are to be, and find out what you are to know, for yourselves, by the inevitable operation of your anterior affinities and inner consciences:—whereas the old idea of education was that the baby material of you, however accidentally or inevitably born, was at least to be by external force, and ancestral knowledge, bred; and treated by its Fathers and Tutors as a plastic vase, to be shaped or mannered as *they* chose, not as *it* chose, and filled, when its form was well finished and baked, with sweetness of sound doctrine, as with Hybla honey, or Arabian spike-nard.

10. Without debating how far these two modes of acquiring knowledge—finding out, and being told—may severally be good, and in perfect instruction combined, I have to point out to you that, broadly, Athens, Rome, and Florence are self-taught, and internally developed; while all the Gothic races, without any exception, but especially those of London and Paris, are afterwards taught by these; and had, therefore, when they chose to accept it, the delight of being instructed, without trouble or doubt, as fast as they could read or imitate; and brought forward to the point where their own northern instincts might wholesomely superimpose or graft some national ideas upon these sound instructions. Read over what I said on this subject in the third of my lectures last year (§ 62 *et seqq.*), and simplify that already

brief statement further, by fastening in your mind Carlyle's general symbol of the best attainments of northern religious sculpture,—“three whale-cubs combined by boiling,” and reflecting that the mental history of all northern European art is the modification of that graceful type, under the orders of the Athena of Homer and Phidias.

11. And this being quite indisputably the broad fact of the matter, I greatly marvel that your historians never, so far as I have read, think of proposing to you the question—what you might have made of yourselves *without* the help of Homer and Phidias: what sort of beings the Saxon and the Celt, the Frank and the Dane, might have been by this time, untouched by the spear of Pallas, unruled by the rod of Agricola, and sincerely the native growth, pure of root, and ungrafted in fruit of the clay of Isis, rock of Dovrefeldt, and sands of Elbe? Think of it, and think chiefly what form the ideas, and images, of your natural religion might probably have taken, if no Roman missionary had ever passed the Alps in charity, and no English king in pilgrimage.

12. I have been of late indebted more than I can express to the friend who has honored me by the dedication of his recently published lectures on ‘Older England’; and whose eager enthusiasm and far collected learning have enabled me for the first time to assign their just meaning and value to the ritual and imagery of Saxon devotion. But while every page of Mr. Hodgett's book, and, I may gratefully say also, every sentence of his teaching, has increased and justified the respect in which I have always been by my own feeling disposed to hold the mythologies founded on the love and knowledge of the natural world, I have also been led by them to conceive, far more forcibly than hitherto, the power which the story of Christianity possessed, first heard through the wreaths of that cloudy superstition, in the substitution, for its vaporescent allegory of a positive and literal account of a real Creation, and an instantly present, omnipresent, and compassionate God.

Observe, there is no question whatever in examining this

influence, how far Christianity itself is true, or the transcendental doctrines of it intelligible. Those who brought you the story of it believed it with all their souls to be true, —and the effect of it on the hearts of your ancestors was that of an unquestionable, infinitely lucid message straight from God, doing away with all difficulties, grief, and fears for those who willingly received it, nor by any, except willfully and obstinately vile persons, to be, by any possibility, denied or refused.

13. And it was precisely, observe, the vivacity and joy with which the main fact of Christ's life was accepted which gave the force and wrath to the controversies instantly arising about its nature.

Those controversies vexed and shook, but never undermined, the faith they strove to purify, and the miraculous presence, errorless precept, and loving promises of their Lord were alike undoubted, alike rejoiced in, by every nation that heard the word of Apostles. The Pelagian's assertion that immortality could be won by man's will, and the Arian's that Christ possessed no more than man's nature, never for an instant—or in any country—hindered the advance of the moral law and intellectual hope of Christianity. Far the contrary; the British heresy concerning Free Will, though it brought bishop after bishop into England to extinguish it, remained an extremely healthy and active element in the British mind down to the days of John Bunyan and the guide Great Heart, and the calmly Christian justice and simple human virtue of Theodoric were the very roots and first burgeons of the regeneration of Italy.* But of the degrees in which it was possible for any barbarous nation to

* Gibbon, in his 37th chapter, makes Ulphilas also an Arian, but might have forborne, with grace, his own definition of orthodoxy:—and you are to observe generally that at this time the teachers who admitted the inferiority of Christ to the Father as touching his Manhood, were often counted among Arians, but quite falsely. Christ's own words, "My Father is greater than I," end that controversy at once. Arianism consists not in asserting the subjection of the Son to the Father, but in denying the subjected Divinity.

receive during the first five centuries, either the spiritual power of Christianity itself, or the instruction in classic art and science which accompanied it, you cannot rightly judge, without taking the pains, and they will not, I think, be irksome, of noticing carefully, and fixing permanently in your minds, the separating characteristics of the greater races, both in those who learned and those who taught.

14. Of the Huns and Vandals we need not speak. They are merely forms of Punishment and Destruction. Put them out of your minds altogether, and remember only the names of the immortal nations, which abide on their native rocks, and plow their unconquered plains, at this hour.

Briefly, in the north,—Briton, Norman, Frank, Saxon, Ostrogoth, Lombard; briefly, in the south,—Tuscan, Roman, Greek, Syrian, Egyptian, Arabian.

15. Now of these races, the British (I avoid the word Celtic, because you would expect me to say Keltic; and I don't mean to, lest you should be wanting me next to call the patroness of music St. Kekilia), the British, including Breton, Cornish, Welsh, Irish, Scot, and Piet, are, I believe, of all the northern races, the one which has deepest love of external nature;—and the richest inherent gift of pure music and song, as such; separated from the intellectual gift which raises song into poetry. They are naturally also religious, and for some centuries after their own conversion are one of the chief evangelizing powers in Christendom. But they are neither apprehensive nor receptive;—they cannot understand the classic races, and learn scarcely anything from them; perhaps better so, if the classic races had been more careful to understand *them*.

16. Next, the Norman is scarcely more apprehensive than the Celt, but he is more constructive, and uses to good advantage what he learns from the Frank. His main characteristic is an energy, which never exhausts itself in vain anger, desire, or sorrow, but abides and rules, like a living rock:—where he wanders, he flows like lava, and congeals like granite.

17. Next, I take in this first sketch the Saxon and Frank together, both pre-eminently apprehensive, both docile exceedingly, imaginative in the highest, but in life active more than pensive, eager in desire, swift of invention, keenly sensitive to animal beauty, but with difficulty rational, and rarely, for the future, wise. Under the conclusive name of Ostrogoth, you may class whatever tribes are native to central Germany, and develop themselves, as time goes on, into that power of the German Cæsars which still asserts itself as an empire against the license and insolence of modern republicanism,—of which races, though this general name, no description can be given in rapid terms.

18. And lastly, the Lombards, who, at the time we have to deal with, were sternly indocile, gloomily imaginative,—of almost Norman energy, and differing from all the other western nations chiefly in this notable particular, that while the Celt is capable of bright wit and happy play, and the Norman, Saxon, and Frank all alike delight in caricature, the Lombards, like the Arabians, never jest.

19. These, briefly, are the six barbaric nations who are to be taught: and of whose native arts and faculties, before they receive any tutorship from the south, I find no well-sifted account in any history:—but thus much of them, collecting your own thoughts and knowledge, you may easily discern—they were all, with the exception of the Scots, practical workers and builders in wood; and those of them who had coasts, first-rate sea-boat builders, with fine mathematical instincts and practice in that kind far developed, necessarily good sail-weaving, and sound fur-stitching, with stout ironwork of nail and rivet; rich copper and some silver work in decoration—the Celts developing peculiar gifts in linear design, but wholly incapable of drawing animals or figures;—the Saxons and Franks having enough capacity in that kind, but no thought of attempting it; the Normans and Lombards still farther remote from any such skill. More and more, it seems to me wonderful that under your British block-temple, grimly extant on its pastoral plain, or beside

the first crosses engraved on the rock of Whithorn—you English and Scots do not oftener consider what you might or could have come to, left to yourselves.

20. Next, let us form the list of your tutor nations, in whom it generally pleases you to look at nothing but the corruptions. If we could get into the habit of thinking more of our own corruptions and more of *their* virtues, we should have a better chance of learning the true laws alike of art and destiny. But, the safest way of all, is to assure ourselves that true knowledge of any thing or any creature is only of the good of it; that its nature and life are in that, and that what is diseased,—that is to say, unnatural and mortal,—you must cut away from it in contemplation, as you would in surgery.

Of the six tutor nations, two, the Tuscan and Arab, have no effect on early Christian England. But the Roman, Greek, Syrian, and Egyptian act together from the earliest times; you are to study the influence of Rome upon England in Agricola, Constantius, St. Benedict, and St. Gregory; of Greece upon England in the artists of Byzantium and Ravenna; of Syria and Egypt upon England in St. Jerome, St. Augustine, St. Chrysostom, and St. Athanase.

21. St. Jerome, in central Bethlehem; St. Augustine, Carthaginian by birth, in truth a converted Tyrian, Athanase, Egyptian, symmetric and fixed as an Egyptian aisle; Chrysostom, golden mouth of all; these are, indeed, every one teachers of all the western world, but St. Augustine, especially of lay, as distinguished from monastic, Christianity to the Franks, and finally to us. His rule, expanded into the treatise of the City of God, is taken for guide of life and policy by Charlemagne, and becomes certainly the fountain of Evangelical Christianity, distinctively so called, (and broadly the lay Christianity of Europe, since, in the purest form of it, that is to say, the most merciful, charitable, variously applicable, kindly wise). The greatest type of it, as far as I know, is St. Martin of Tours, whose character is sketched, I think in the main rightly, in the Bible of

Amiens; and you may bind together your thoughts of its course by remembering that Alcuin, born at York, dies in the Abbey of St. Martin, at Tours; that as St. Augustine was in his writings Charlemagne's Evangelist in faith, Alcuin was, in living presence, his master in rhetoric, logic, and astronomy, with the other physical sciences.

22. A hundred years later than St. Augustine, comes the rule of St. Benedict—the Monastic rule, virtually, of European Christianity, ever since—and theologically the Law of Works, as distinguished from the Law of Faith. St. Augustine and all the disciples of St. Augustine tell Christians what they should feel and think: St. Benedict and all the disciples of St. Benedict tell Christians what they should say and do.

In the briefest, but also the perfectest distinction, the disciples of St. Augustine are those who open the door to Christ—"If any man hear my voice"; but the Benedictines those to whom Christ opens the door—"To him that knocketh it shall be opened."

23. Now, note broadly the course and action of this rule, as it combines with the older one. St. Augustine's, accepted heartily by Clovis, and, with various degrees of understanding, by the kings and queens of the Merovingian dynasty, makes seemingly little difference in their conduct, so that their profession of it remains a scandal to Christianity to this day; and yet it lives, in the true hearts among them, down from St. Clotilde to her great-granddaughter Bertha, who in becoming Queen of Kent, builds under its chalk downs her own little chapel to St. Martin, and is the first effectively and permanently useful missionary to the Saxons, the beginner of English Erudition,—the first laid corner stone of beautiful English character.

24. I think henceforward you will find the memorandum of dates which I have here set down for my own guidance more simply useful than those confused by record of unimportant persons and inconsequent events, which form the indices of common history.

From the year of the Saxon invasion, 449, there are exactly 400 years to the birth of Alfred, 849. You have no difficulty in remembering those cardinal years. Then, you have Four great men and great events to remember, at the close of the fifth century. Clovis, and the founding of Frank Kingdom; Theodoric and the founding of the Gothic Kingdom; Justinian and the founding of Civil law; St. Benedict and the founding of Religious law.

25. Of Justinian, and his work, I am not able myself to form any opinion—and it is, I think, unnecessary for students of history to form any, until they are able to estimate clearly the benefits, and mischief, of the civil law of Europe in its present state. But to Clovis, Theodoric, and St. Benedict, without any question, we owe more than any English historian has yet ascribed,—and they are easily held in mind together, for Clovis ascended the Frank throne in the year of St. Benedict's birth, 481. Theodoric fought the battle of Verona, and founded the Ostrogothic Kingdom in Italy twelve years later, in 493, and thereupon married the sister of Clovis. That marriage is always passed in a casual sentence, as if a merely political one, and while page after page is spent in following the alternations of furious crime and fatal chance, in the contests between Fredegonde and Brunehaut, no historian ever considers whether the great Ostrogoth who wore in the battle of Verona the dress which his mother had woven for him, was likely to have chosen a wife without love!—or how far the perfectness, justice, and temperate wisdom of every ordinance of his reign was owing to the sympathy and counsel of his Frankish queen.

26. You have to recollect, then, thus far, only three cardinal dates:—

449. Saxon invasion.

481. Clovis reigns and St. Benedict is born.

493. Theodoric conquers at Verona.

Then, roughly, a hundred years later, in 590, Ethelbert, the fifth from Hengist, and Bertha, the third from Clotilde, are king and queen of Kent. I cannot find the date of their

marriage, but the date, 590, which you must recollect for cardinal, is that of Gregory's accession to the pontificate, and I believe Bertha was then in middle life, having persevered in her religion firmly, but inoffensively, and made herself beloved by her husband and people. She, in England, Theodolinda in Lombardy, and St. Gregory in Rome:—in their hands, virtually lay the destiny of Europe.

Then the period from Bertha to Osburga, 590 to 849—say 250 years—is passed by the Saxon people in the daily more reverent learning of the Christian faith, and daily more peaceful and skillful practice of the humane arts and duties which it invented and inculcated.

27. The statement given by Sir Edward Creasy of the result of these 250 years of lesson is, with one correction, the most simple and just that I can find.

“A few years before the close of the sixth century, the country was little more than a wide battle-field, where gallant but rude warriors fought with each other, or against the neighboring Welsh or Scots; unheeding and unheeded by the rest of Europe, or, if they attracted casual attention, regarded with dread and disgust as the fiercest of barbarians and the most untamable of pagans. In the eighth century, England was looked up to with admiration and gratitude, as superior to all the other countries of Western Europe in piety and learning, and as the land whence the most zealous and successful saints and teachers came forth to convert and enlighten the still barbarous regions of the continent.”

28. This statement is broadly true; yet the correction it needs is a very important one. England,—under her first Alfred of Northumberland, and under Ina of Wessex, is indeed during these centuries the most learned, thoughtful, and progressive of European states. But she is not a missionary power. The missionaries are always to her, not from her:—for the very reason that she is learning so eagerly, she does not take to preaching. Ina founds his Saxon school at Rome not to teach Rome, nor convert the Pope, but to drink at the source of knowledge, and to receive laws from

direct and unquestioned authority. The missionary power was wholly Scotch and Irish, and that power was wholly one of zeal and faith, not of learning. I will ask you, in the course of my next lecture, to regard it attentively; to-day, I must rapidly draw to the conclusions I would leave with you.

29. It is more and more wonderful to me as I think of it, that no effect whatever was produced on the Saxon, nor on any other healthy race of the North, either by the luxury of Rome, or by her art, whether constructive or imitative. The Saxon builds no aqueducts—designs no roads, rounds no theaters in imitation of her,—envies none of her vile pleasures,—admires, so far as I can judge, none of her far-carried realistic art. I suppose that it needs intelligence of a more advanced kind to see the qualities of complete sculpture: and that we may think of the Northern intellect as still like that of a child, who cares to picture its own thoughts in its own way, but does not care for the thoughts of older people, or attempt to copy what it feels too difficult. This much at least is certain, that for one cause or another, everything that now at Paris or London our painters most care for and try to realize of ancient Rome, was utterly innocuous and unattractive to the Saxon: while his mind was frankly open to the direct teaching of Greece and to the methods of bright decoration employed in the Byzantine Empire: for these alone seemed to his fancy suggestive of the glories of the brighter world promised by Christianity. Jewelry, vessels of gold and silver, beautifully written books, and music, are the gifts of St. Gregory alike to the Saxon and Lombard; all these beautiful things being used, not for the pleasure of the present life, but as the symbols of another; while the drawings in Saxon manuscripts, in which, better than in any other remains of their life, we can read the people's character, are rapid endeavors to express for themselves, and convey to others, some likeness of the realities of sacred event in which they had been instructed. They differ from every archaic school of former design in this evident corre-

spondence with an imagined reality. All previous archaic art whatsoever is symbolic and decorative—not realistic. The contest of Herakles with the Hydra on a Greek vase is a mere sign that such a contest took place, not a picture of it, and in drawing that sign the potter is always thinking of the effect of the engraved lines on the curves of his pot, and taking care to keep out of the way of the handle;—but a Saxon monk would scratch his idea of the Fall of the angels or the Temptation of Christ over a whole page of his manuscript in variously explanatory scenes, evidently full of inexpressible vision, and eager to explain and illustrate all that he felt or believed.

30. Of the progress and arrest of these gifts, I shall have to speak in my next address; but I must regretfully conclude to-day with some brief warning against the complacency which might lead you to regard them as either at that time entirely original in the Saxon race, or at the present day as signally characteristic of it. That form of complacency is exhibited in its most amiable but, therefore, most deceptive guise, in the passage with which the late Dean of Westminster concluded his lecture at Canterbury in April, 1854, on the subject of the landing of Augustine. I will not spoil the emphasis of the passage by comment as I read, but must take leave afterwards to intimate some grounds for abatement in the fervor of its self-gratulatory ecstacy.

31. “Let any one sit on the hill of the little church of St. Martin, and look on the view which is there spread before his eyes. Immediately below are the towers of the great Abbey of St. Augustine, where Christian learning and civilization first struck root in the Anglo-Saxon race; and within which now, after a lapse of many centuries, a new institution has arisen, intended to carry far and wide, to countries of which Gregory and Augustine never heard, the blessings which they gave to us. Carry your view on—and there rises high above all the magnificent pile of our cathedral, equal in splendor and state to any, the noblest temple or church that Augustine could have seen in ancient Rome,

rising on the very ground which derives its consecration from him. And still more than the grandeur of the outward buildings that rose from the little church of Augustine and the little palace of Ethelbert have been the institutions of all kinds of which these were the earliest cradle. From Canterbury, the first English Christian city,—from Kent, the first English Christian kingdom—has by degrees arisen the whole constitution of Church and State in England which now binds together the whole British Empire. And from the Christianity here established in England has flowed, by direct consequence, first the Christianity of Germany; then, after a long interval, of North America; and lastly, we may trust, in time, of all India and all Australasia. The view from St. Martin's Church is indeed one of the most inspiring that can be found in the world; there is none to which I would more willingly take any one who doubted whether a small beginning could lead to a great and lasting good;—none which carries us more vividly back into the past, or more hopefully forward into the future.”

32. To this Gregorian canticle in praise of the British constitution, I grieve, but am compelled, to take these following historical objections. The first missionary to Germany was Ulphilas, and what she owes to these islands she owes to Iona, not to Thanet. Our missionary offices to America as to Africa, consist I believe principally in the stealing of land, and the extermination of its proprietors by intoxication. Our rule in India has introduced there, Paisley instead of Cashmere shawls: in Australasia our Christian aid supplies, I suppose, the pious farmer with convict labor. And although, when the Dean wrote the above passage, St. Augustine's and the cathedral were—I take it on trust from his description—the principal objects in the prospect from St. Martin's Hill, I believe even the cheerfulest of my audience would not now think the scene one of the most inspiring in the world. For recent progress has entirely accommodated the architecture of the scene to the convenience of the missionary workers above enumerated; to the peculiar

necessities of the civilization they have achieved. For the sake of which the cathedral, the monastery, the temple, and the tomb, of Bertha, contract themselves in distant or despised subservience under the colossal walls of the county jail.

LECTURE II.

THE PLEASURES OF FAITH.

ALFRED TO THE CONFESSOR.

Delivered 25th and 27th October, 1884.

33. I WAS forced in my last lecture to pass by altogether, and to-day can only with momentary definition notice, the part taken by Scottish missionaries in the Christianizing of England and Burgundy. I would pray you therefore, in order to fill the gap which I think it better to leave distinctly, than close confusedly, to read the histories of St. Patrick, St. Columba, and St. Columban, as they are given you by Montalembert in his 'Moines d'Occident.' You will find in his pages all the essential facts that are known, encircled with a nimbus of enthusiastic sympathy which I hope you will like better to see them through, than distorted by the blackening fog of contemptuous rationalism. But although I ask you thus to make yourselves aware of the greatness of my omission, I must also certify you that it does not break the unity of our own immediate subject. The influence of Celtic passion and art both on Northumbria and the Continent, beneficent in all respects while it lasted, expired without any permanent share in the work or emotion of the Saxon and Frank. The book of Kells, and the bell of St. Patrick, represent sufficiently the peculiar character of Celtic design; and long since, in the first lecture of the 'Two Paths,' I explained both the modes of skill, and points of weakness, which rendered such design unprogressive. Perfect in its peculiar manner, and exulting in the faultless practice of a narrow skill, it remained century after century

incapable alike of inner growth, or foreign instruction; inimitable, yet incorrigible; marvelous, yet despicable, to its death. Despicable, I mean, only in the limitation of its capacity, not in its quality or nature. If you make a Christian of a lamb or a squirrel—what can you expect of the lamb but jumping—what of the squirrel, but pretty spirals, traced with his tail? He won't steal your nuts any more, and he'll say his prayers like this—*; but you cannot make a Beatrice's griffin, and emblem of all the Catholic Church, out of him.

34. You will have observed, also, that the plan of these lectures does not include any reference to the Roman Period in England; of which you will find all I think necessary to say, in the part called *Valle Crucis* of 'Our Fathers have told us.' But I must here warn you, with reference to it, of one gravely false prejudice of Montalembert. He is entirely blind to the conditions of Roman virtue, which existed in the midst of the corruptions of the Empire, forming the characters of such Emperors as Pertinax, Carus, Probus, the second Claudius, Aurelian, and our own Constantius; and he denies, with abusive violence, the power for good, of Roman Law, over the Gauls and Britons.

35. Respecting Roman national character, I will simply beg you to remember, that both St. Benedict and St. Gregory are Roman patricians, before they are either monk or pope; respecting its influence on Britain, I think you may rest content with Shakespeare's estimate of it. Both Lear and Cymbeline belong to this time, so difficult to our apprehension, when the Briton accepted both Roman laws and Roman gods. There is indeed the born Kentish gentleman's protest against them in Kent's—

“Now, by Apollo, king,
Thou swear'st thy gods in vain;”

but both Cordelia and Imogen are just as thoroughly Roman ladies, as Virgilia or Calphurnia.

* Making a sign.

36. Of British Christianity and the Arthurian Legends, I shall have a word or two to say in my lecture on "Fancy," in connection with the similar romance which surrounds Theodoric and Charlemagne: only the worst of it is, that while both Dietrich and Karl are themselves more wonderful than the legends of them, Arthur fades into intangible vision:—this much, however, remains to this day, of Arthurian blood in us, that the richest fighting element in the British army and navy is British native,—that is to say, Highlander, Irish, Welsh, and Cornish.

37. Content, therefore, (means being now given you for filling gaps,) with the estimates given you in the preceding lecture of the sources of instruction possessed by the Saxon capital, I pursue to-day our question originally proposed, what London might have been by this time, if the nature of the flowers, trees, and children, born at the Thames-side, had been rightly understood and cultivated.

38. Many of my hearers can imagine far better than I, the look that London must have had in Alfred's and Canute's days.* I have not, indeed, the least idea myself what its buildings were like, but certainly the groups of its shipping must have been superb; small, but entirely seaworthy vessels, manned by the best seamen in the then world. Of course, now, at Chatham and Portsmouth we have our ironclads, —extremely beautiful and beautifully manageable things, no

* Here Alfred's Silver Penny was shown and commented on, thus:—Of what London was like in the days of faith, I can show you one piece of artistic evidence. It is Alfred's silver penny struck in London mint. The character of a coinage is quite conclusive evidence in national history, and there is no great empire in progress, but tells its story in beautiful coins. Here in Alfred's penny, a round coin with L.O.N.D.I.N.I.A. struck on it, you have just the same beauty of design, the same enigmatical arrangement of letters, as in the early inscription, which it is "the pride of my life" to have discovered at Venice. This inscription ("the first words that Venice ever speaks aloud") is, it will be remembered, on the Church of St. Giacomo di Rialto, and runs, being interpreted—"Around this temple, let the merchant's law be just, his weights true, and his covenants faithful."

doubt—to set against this Saxon and Danish shipping; but the Saxon war-ships lay here at London shore—bright with banner and shield and dragon prow,—instead of these you may be happier, but are not handsomer, in having, now, the coal-barge, the penny steamer, and the wherry full of shop boys and girls. I dwell however for a moment only on the naval aspect of the tidal waters in the days of Alfred, because I can refer you for all detail on this part of our subject to the wonderful opening chapter of Dean Stanley's History of Westminster Abbey, where you will find the origin of the name of London given as "The City of Ships." He does not, however, tell you, that there were built, then and there, the biggest warships in the world. I have often said to friends who praised my own books that I would rather have written that chapter than any one of them; yet if I *had* been able to write the historical part of it, the conclusions drawn would have been extremely different. The Dean indeed describes with a poet's joy the River of wells, which rose from those "once consecrated springs which now lie choked in Holywell and Clerkenwell, and the rivulet of Ulebrig which crossed the Strand under the Ivy bridge"; but it is only in the spirit of a modern citizen of Belgravia that he exults in the fact that "the great arteries of our crowded streets, the vast sewers which cleanse our habitations, are fed by the life-blood of those old and living streams; that underneath our tread the Tyburn, and the Holborn, and the Fleet, and the Wall Brook, are still pursuing their ceaseless course, still ministering to the good of man, though in a far different fashion than when Druids drank of their sacred springs, and Saxons were baptized in their rushing waters, ages ago."

39. Whatever sympathy you may feel with these eloquent expressions of that entire complacency in the present, past, and future, which peculiarly animates Dean Stanley's writings, I must, in this case, pray you to observe that the transmutation of holy wells into sewers has, at least, destroyed the charm and utility of the Thames as a salmon stream, and I must ask you to read with attention the succeeding portions

of the chapter which record the legends of the river fisheries in their relation to the first Abbey of Westminster; dedicated by its builders to St. Peter, not merely in his office of cornerstone of the Church, nor even figuratively as a fisher of men, but directly as a fisher of fish:—and which maintained themselves, you will see, in actual ceremony down to 1382, when a fisherman still annually took his place beside the Prior, after having brought in a salmon for St. Peter, which was carried in state down the middle of the refectory.

40. But as I refer to this page for the exact word, my eye is caught by one of the sentences of Londonian * thought which constantly pervert the well-meant books of pious England. “We see also,” says the Dean, “the union of innocent fiction with worldly craft, which marks so many of the legends both of Pagan and Christian times.” I might simply reply to this insinuation that times which have no legends differ from the legendary ones merely by uniting guilty, instead of innocent, fiction, with worldly craft; but I must farther advise you that the legends of these passionate times are in no wise, and in no sense, fiction at all; but the true record of impressions made on the minds of persons in a state of eager spiritual excitement, brought into bright focus by acting steadily and frankly under its impulses. I could tell you a great deal more about such things than you would believe, and therefore, a great deal more than it would do you the least good to hear;—but this much any who care to use their common sense modestly, cannot but admit, that unless they choose to try the rough life of the Christian ages, they cannot understand its practical consequences. You have all been taught by Lord Macaulay and his school that because you have Carpets instead of rushes for your feet; and Feather-beds instead of fern for your backs; and Kickshaws instead of beef for your eating; and Drains instead of Holy Wells for your drinking;—that, therefore, you are the Cream of Creation, and every one of

* Not *Londonian*.

you a seven-headed Solomon. Stay in those pleasant circumstances and convictions if you please; but don't accuse your roughly bred and fed fathers of telling lies about the aspect the earth and sky bore to *them*—till you have trodden the earth as they, barefoot, and seen the heavens as they, face to face. If you care to see and to know for yourselves, you may do it with little pains; you need not do any great thing, you needn't keep one eye open and the other shut for ten years over a microscope, nor fight your way through icebergs and darkness to knowledge of the *celestial* pole. Simply, do as much as king after king of the Saxons did,—put rough shoes on your feet and a rough cloak on your shoulders, and walk to Rome and back. Sleep by the roadside, when it is fine,—in the first outhouse you can find, when it is wet; and live on bread and water, with an onion or two, all the way; and if the experiences which you will have to relate on your return do not, as may well be, deserve the name of spiritual; at all events you will not be disposed to let other people regard them either as Poetry or Fiction.

41. With this warning, presently to be at greater length insisted on, I trace for you, in Dean Stanley's words, which cannot be bettered except in the collection of their more earnest passages from among his interludes of graceful but dangerous qualification,—I trace, with only such omission, the story he has told us of the foundation of that Abbey, which, he tells you, was the Mother of London, and has ever been the shrine and the throne of English faith and truth.

“The gradual formation of a monastic body, indicated in the charters of Offa and Edgar, marks the spread of the Benedictine order throughout England, under the influence of Dunstan. The ‘terror’ of the spot, which had still been its chief characteristic in the charter of the wild Offa, had, in the days of the more peaceful Edgar, given way to a dubious ‘renown.’ Twelve monks is the number traditionally said to have been established by Dunstan. A few acres further up the river formed their chief property, and their monastic character was sufficiently recognized to have given

to the old locality of the 'terrible place' the name of the 'Western Monastery,' or 'Minster of the West.'"

The Benedictines then—twelve Benedictine monks—thus begin the building of existent Christian London. You know I told you the Benedictines are the Doing people, as the disciples of St. Augustine the Sentimental people. The Benedictines find no terror in their own thoughts—face the terror of places—change it into beauty of places,—make this terrible place, a Motherly Place—Mother of London.

42. This first Westminster, however, the Dean goes on to say, "seems to have been overrun by the Danes, and it would have had no further history but for the combination of circumstances which directed hither the notice of Edward the Confessor."

I haven't time to read you all the combination of circumstances. The last clinching circumstance was this—

"There was in the neighborhood of Worcester, 'far from men in the wilderness, on the slope of a wood, in a cave deep down in the gray rock,' a holy hermit 'of great age, living on fruits and roots.' One night, when after reading in the Scriptures 'how hard are the pains of hell, and how the enduring life of Heaven is sweet and to be desired,' he could neither sleep nor repose, St. Peter appeared to him, 'bright and beautiful, like to a clerk,' and warned him to tell the King that he was released from his vow; that on that very day his messengers would return from Rome;" (that is the combination of circumstances—bringing Pope's order to build a church to release the King from his vow of pilgrimage); "that 'at Thorney, two leagues from the city,' was the spot marked out where, in an ancient church, 'situated low,' he was to establish a perfect Benedictine monastery, which should be 'the gate of heaven, the ladder of prayer, whence those who serve St. Peter there, shall by him be admitted into Paradise.' The hermit writes the account of the vision on parchment, seals it with wax, and brings it to the King, who compares it with the answer of the messengers, just

arrived from Rome, and determines on carrying out the design as the Apostle had ordered.

43. "The ancient church, 'situated low,' indicated in this vision the one whose attached monastery had been destroyed by the Danes, but its little church remained, and was already dear to the Confessor, not only from the lovely tradition of its dedication by the spirit of St. Peter;" (you must read that for yourselves;) "but also because of two miracles happening there to the King himself.

"The first was the cure of a cripple, who sat in the road between the Palace and 'the Chapel of St. Peter,' which was 'near,' and who explained to the Chamberlain Hugolin that, after six pilgrimages to Rome in vain, St. Peter had promised his cure if the King would, on his own royal neck, carry him to the Monastery. The King immediately consented; and, amidst the scoffs of the court, bore the poor man to the steps of the High Altar. There the cripple was received by Godric the sacristan, and walked away on his own restored feet, hanging his stool on the wall for a trophy.

"Before that same High Altar was also believed to have been seen one of the Eucharistical portents, so frequent in the Middle Ages. A child, 'pure and bright like a spirit,' appeared to the King in the sacramental elements. Leofric, Earl of Mercia, who, with his famous countess, Godiva, was present, saw it also.

"Such as these were the motives of Edward. Under their influence was fixed what has ever since been the local center of the English monarchy."

44. "Such as these were the *motives* of Edward," says the Dean. Yes, certainly; but such as these also, first, were the acts and visions of Edward. Take care that you don't slip away, by the help of the glycerine of the word "motives," into fancying that all these tales are only the after colors and pictorial metaphors of sentimental piety. They are either plain truth or black lies; take your choice,—but don't tickle and treat yourselves with the prettiness or the grotesqueness of them, as if they were Andersen's fairy tales. Either the

King did carry the beggar on his back, or he didn't; either Godiva rode through Coventry, or she didn't; either the Earl Leofric saw the vision of the bright child at the altar—or he lied like a knave. Judge, as you will; but do not Doubt.

45. “The Abbey was fifteen years in building. The King spent upon it one-tenth of the property of the kingdom. It was to be a marvel of its kind. As in its origin it bore the traces of the fantastic and childish” (I must pause, to ask you to substitute for these blameful terms, ‘fantastic and childish,’ the better ones of ‘imaginative and pure’) “character of the King and of the age; in its architecture it bore the stamp of the peculiar position which Edward occupied in English history between Saxon and Norman. By birth he was a Saxon, but in all else he was a foreigner. Accordingly the Church at Westminster was a wide-sweeping innovation on all that had been seen before. ‘Destroying the old building,’ he says in his charter, ‘I have built up a new one from the very foundation.’ Its fame as a ‘new style of composition’ lingered in the minds of men for generations. It was the first cruciform church in England, from which all the rest of like shape were copied—an expression of the increasing hold which, in the tenth century, the idea of the Crucifixion had laid on the imagination of Europe. The massive roof and pillars formed a contrast with the rude wooden rafters and beams of the common Saxon churches. Its very size—occupying, as it did, almost the whole area of the present building—was in itself portentous. The deep foundations, of large square blocks of gray stone, were duly laid; the east end was rounded into an apse; a tower rose in the center, crowned by a cupola of wood. At the western end were erected two smaller towers, with five large bells. The hard strong stones were richly sculptured; the windows were filled with stained glass; the roof was covered with lead. The cloisters, chapter-house, refectory, dormitory, the infirmary, with its spacious chapel, if not completed by Edward, were all begun, and finished in the next generation on the same plan. This structure, venerable as it would be if it had lasted

to our time, has almost entirely vanished. Possibly one vast dark arch in the southern transept, certainly the substructures of the dormitory, with their huge pillars, 'grand and regal at the bases and capitals,' the massive, low-browed passage leading from the great cloister to Little Dean's Yard, and some portions of the refectory, and of the infirmary chapel, remain as specimens of the work which astonished the last age of the Anglo-Saxon and the first age of the Norman monarchy."

46. Hitherto I have read to you with only supplemental comment. But in the next following passage, with which I close my series of extracts, sentence after sentence occurs, at which as I read, I must raise my hand, to mark it for following deprecation, or denial.

"In the center of Westminster Abbey thus lies its Founder, and such is the story of its foundation. Even apart from the legendary elements in which it is involved, it is impossible not to be struck by the fantastic character of all its circumstances. We seem to be in a world of poetry." (I protest, No.) "Edward is four centuries later than Ethelbert and Augustine; but the origin of Canterbury is commonplace and prosaic compared with the origin of Westminster." (Yes, that's true.) "We can hardly imagine a figure more incongruous to the soberness of later times than the quaint, irresolute, wayward prince whose chief characteristics have just been described. His titles of Confessor and Saint belong not to the general instincts of Christendom; but to the most transitory feelings of the age." (I protest, No.) "His opinions, his prevailing motives, were such as in no part of modern Europe would now be shared by any educated teacher or ruler." (That's true enough.) "But in spite of these irreconcilable differences, there was a solid ground for the charm which he exercised over his contemporaries. His childish and eccentric fancies have passed away;" (I protest, No;) "but his innocent faith and his sympathy with his people are qualities which, even in our altered times, may still retain their place in the economy of the world. Westminster Abbey,

so we hear it said, sometimes with a cynical sneer, sometimes with a timorous scruple, has admitted within its walls many who have been great without being good, noble with a nobleness of the earth earthy, worldly with the wisdom of this world. But it is a counterbalancing reflection, that the central tomb, round which all those famous names have clustered, contains the ashes of one who, weak and erring as he was, rests his claims of interment here, not on any act of power or fame, but only on his artless piety and simple goodness. He, towards whose dust was attracted the fierce Norman, and the proud Plantagenet, and the grasping Tudor, and the fickle Stuart, even the Independent Oliver, the Dutch William, and the Hanoverian George, was one whose humble graces are within the reach of every man, woman, and child of every time, if we rightly part the immortal substance from the perishable form."

47. Now I have read you these passages from Dean Stanley as the most accurately investigatory, the most generously sympathetic, the most reverently acceptant account of these days, and their people, which you can yet find in any English history. But consider now, point by point, where it leaves you. You are told, first, that you are living in an age of poetry. But the days of poetry are those of Shakespeare and Milton, not of Bede: nay, for their especial wealth in melodious theology and beautifully rhythmic and pathetic meditation, perhaps the days which have given us 'Hiawatha,' 'In Memoriam,' 'The Christian Year,' and the 'Soul's Diary' of George Macdonald, may be not with disgrace compared with those of Caedmon. And nothing can be farther different from the temper, nothing less conscious of the effort, of a poet, than any finally authentic document to which you can be referred for the relation of a Saxon miracle.

48. I will read you, for a perfectly typical example, an account of one from Bede's 'Life of St. Cuthbert.' The passage is a favorite one of my own, but I do not in the least anticipate its producing upon you the solemnizing effect

which I think I could command from reading, instead, a piece of 'Marmion,' 'Manfred,' or 'Childe Harold.'

. . . "He had one day left his cell to give advice to some visitors; and when he had finished, he said to them, 'I must now go in again, but do you, as you are inclined to depart, first take food; and when you have cooked and eaten that goose which is hanging on the wall, go on board your vessel in God's name and return home.' He then uttered a prayer, and, having blessed them, went in. But they, as he had bidden them, took some food; but having enough provisions of their own, which they had brought with them, they did not touch the goose.

"But when they had refreshed themselves they tried to go on board their vessel, but a sudden storm utterly prevented them from putting to sea. They were thus detained seven days in the island by the roughness of the waves, and yet they could not call to mind what fault they had committed. They therefore returned to have an interview with the holy father, and to lament to him their detention. He exhorted them to be patient, and on the seventh day came out to console their sorrow, and to give them pious exhortations. When, however, he had entered the house in which they were stopping, and saw that the goose was not eaten, he reproved their disobedience with mild countenance and in gentle language: 'Have you not left the goose still hanging in its place? What wonder is it that the storm has prevented your departure? Put it immediately into the caldron, and boil and eat it, that the sea may become tranquil, and you may return home.'

"They immediately did as he commanded; and it happened most wonderfully that the moment the kettle began to boil the wind began to cease, and the waves to be still. Having finished their repast, and seeing that the sea was calm, they went on board, and to their great delight, though with shame for their neglect, reached home with a fair wind. Now this, as I have related, I did not pick up from any

chance authority, but I had it from one of those who were present, a most reverend monk and priest of the same monastery, Cynemund, who still lives, known to many in the neighborhood for his years and the purity of his life.”

49. I hope that the memory of this story, which, thinking it myself an extremely pretty one, I have given you, not only for a type of sincerity and simplicity, but for an illustration of obedience, may at all events quit you, for good and all, of the notion that the believers and witnesses of miracle were poetical persons. Saying no more on the head of that allegation, I proceed to the Dean's second one, which I cannot but interpret as also intended to be injurious,—that they were artless and childish ones; and that because of this rudeness and puerility, their motives and opinions would not be shared by any statesmen of the present day.

50. It is perfectly true that Edward the Confessor was himself in many respects of really childish temperament; not therefore, perhaps, as I before suggested to you, less venerable. But the age of which we are examining the progress, was by no means represented or governed by men of similar disposition. It was eminently productive of—it was altogether governed, guided, and instructed by—men of the widest and most brilliant faculties, whether constructive or speculative, that the world till then had seen; men whose acts became the romance, whose thoughts the wisdom, and whose arts the treasure, of a thousand years of futurity.

51. I warned you at the close of last lecture against the too agreeable vanity of supposing that the Evangelization of the world began at St. Martin's, Canterbury. Again and again you will indeed find the stream of the Gospel contracting itself into narrow channels, and appearing, after long-concealed filtration, through veins of unmeasured rock, with the bright resilience of a mountain spring. But you will find it the only candid, and therefore the only wise, way of research, to look in each era of Christendom for the minds of culminating power in all its brotherhood of nations; and,

careless of local impulse, momentary zeal, picturesque incident, or vaunted miracle, to fasten your attention upon the force of character in the men, whom, over each newly-converted race, Heaven visibly sets for its shepherds and kings, to bring forth judgment unto victory. Of these I will name to you, as messengers of God and masters of men, five monks and five kings; in whose arms during the range of swiftly gainful centuries which we are following, the life of the world lay as a nursling babe. Remember, in their successive order,—of monks, St. Jerome, St. Augustine, St. Martin, St. Benedict, and St. Gregory; of kings,—and your national vanity may be surely enough appeased in recognizing two of them for Saxon,—Theodoric, Charlemagne, Alfred, Canute, and the Confessor. I will read three passages to you, out of the literal words of three of these ten men, without saying whose they are, that you may compare them with the best and most exalted you have read expressing the philosophy, the religion, and the policy of to-day,—from which I admit, with Dean Stanley, but with a far different meaning from his, that they are indeed separate for evermore.

52. I give you first, for an example of Philosophy, a single sentence, containing all—so far as I can myself discern—that it is possible for us to know, or well for us to believe, respecting the world and its laws.

“Of God’s universal Providence, ruling all, and comprising all.

“Wherefore the great and mighty God; He that made man a reasonable creature of soul and body, and He that did neither let him pass unpunished for his sin, nor yet excluded him from mercy; He that gave, both unto good and bad, essence with the stones, power of production with the trees, senses with the beasts of the field, and understanding with the angels; He from whom is all being, beauty, form, and order, number, weight, and measure; He from whom all nature, mean and excellent, all seeds of form, all forms of

seed, all motion, both of forms and seeds, derive and have being; He that gave flesh the original beauty, strength, propagation, form and shape, health and symmetry; He that gave the unreasonable soul, sense, memory, and appetite; the reasonable besides these, fantasy, understanding, and will; He, I say, having left neither heaven, nor earth, nor angel, nor man, no, nor the most base and contemptible creature, neither the bird's feather, nor the herb's flower, nor the tree's leaf, without the true harmony of their parts, and peaceful concord of composition:—It is in no way credible that He would leave the kingdoms of men and their bondages and freedom loose and uncomprised in the laws of His eternal providence.”*

53. This for the philosophy.† Next, I take for example of the Religion of our ancestors, a prayer, personally and passionately offered to the Deity conceived as you have this moment heard.

“O Thou who art the Father of that Son which has awakened us, and yet urgeth us out of the sleep of our sins, and exhorteth us that we become Thine;” (note you that, for apprehension of what Redemption means, against your base and cowardly modern notion of 'scaping whipping. Not to take away the Punishment of Sin, but by His Resurrection to raise us out of the sleep of sin itself! Compare the legend at the feet of the Lion of the Tribe of Judah in the golden Gospel of Charles le Chauve ‡:—

“*HIC LEO SURGENDO PORTAS CONFREGIT AVERNI*

QUI NUNQUAM DORMIT, NUSQUAM DORMITAT IN ÆVUM;”)

“to Thee, Lord, I pray, who art the supreme truth; for all

* From St. Augustine's 'Citie of God,' Book V., ch. xi. (English trans., printed by George Eld, 1610.)

† Here one of the “Stones of Westminster” was shown and commented on.

‡ At Munich: the leaf has been exquisitely drawn and legend communicated to me by Professor Westwood. It is written in gold on purple. (See below, §§ 102 and 110 n. Ed. 1898.)

the truth that is, is truth from Thee. Thee I implore, O Lord, who art the highest wisdom. Through Thee are wise all those that are so. Thou art the true life, and through Thee are living all those that are so. Thou art the supreme felicity, and from Thee all have become happy that are so. Thou art the highest good, and from Thee all beauty springs. Thou art the intellectual light, and from Thee man derives his understanding.

“To Thee, O God, I call and speak. Hear, O hear me, Lord! for Thou art my God and my Lord; my Father and my Creator; my ruler and my hope; my wealth and my honor; my house, my country, my salvation, and my life! Hear, hear me, O Lord! Few of Thy servants comprehend Thee. But Thee alone I *love*,* indeed, above all other things. Thee I seek: Thee I will follow: Thee I am ready to serve. Under Thy power I desire to abide, for Thou alone art the Sovereign of all. I pray Thee to command me as Thou wilt.”

54. You see this prayer is simply the expansion of that clause of the Lord's Prayer which most men eagerly omit from it,—*Fiat voluntas tua*. In being so, it sums the Christian prayer of all ages. See now, in the third place, how far this king's letter I am going to read to you sums also Christian Policy.

“Wherefore I render high thanks to Almighty God, for the happy accomplishment of all the desires which I have set before me, and for the satisfying of my every wish.

“Now therefore, be it known to you all, that to Almighty God Himself I have, on my knees, devoted my life, to the end that in all things I may do justice, and with justice and rightness rule the kingdoms and peoples under me; throughout everything preserving an impartial judgment. If, heretofore, I have, through being, as young men are, impulsive or careless, done anything unjust, I mean, with God's help,

* Meaning—not that he is of those few, but that, without comprehending, at least, as a dog, he can love.

to lose no time in remedying my fault. To which end I call to witness my counselors, to whom I have intrusted the counsels of the kingdom, and I charge them that by no means, be it through fear of me, or the favor of any other powerful personage, to consent to any injustice, or to suffer any to shoot out in any part of my kingdom. I charge all my viscounts and those set over my whole kingdom, as they wish to keep my friendship or their own safety, to use no unjust force to any man, rich or poor; let all men, noble and not noble, rich and poor alike, be able to obtain their rights under the law's justice; and from that law let there be no deviation, either to favor the king or any powerful person, nor to raise money for me. I have no need of money raised by what is unfair. I also would have you know that I go now to make peace and firm treaty by the counsels of all my subjects, with those nations and people who wished, had it been possible for them to do so, which it was not, to deprive us alike of kingdom and of life. God brought down their strength to nought: and may He of His benign love preserve us on our throne and in honor. Lastly, when I have made peace with the neighboring nations, and settled and pacified all my dominions in the East, so that we may nowhere have any war or enmity to fear, I mean to come to England this summer, as soon as I can fit out vessels to sail. My reason, however, in sending this letter first is to let all the people of my kingdom share in the joy of my welfare: for as you yourselves know, I have never spared myself or my labor; nor will I ever do so, where my people are really in want of some good that I can do them."

55. What think you now, in candor and honor, you youth of the latter days,—what think you of these types of the thought, devotion, and government, which not in words, but pregnant and perpetual fact, animated these which you have been accustomed to call the Dark Ages?

The Philosophy is Augustine's; the Prayer Alfred's; and the Letter Canute's.

And, whatever you may feel respecting the beauty or wisdom of these sayings, be assured of one thing above all, that they are sincere; and of another, less often observed, that they are joyful.

56. Be assured, in the first place, that they are sincere. The ideas of diplomacy and priestcraft are of recent times. No false knight or lying priest ever prospered, I believe, in any age, but certainly not in the dark ones. Men prospered then, only in following openly-declared purposes, and preaching candidly beloved and trusted creeds.

And that they did so prosper, in the degree in which they accepted and proclaimed the Christian Gospel, may be seen by any of you in your historical reading, however partial, if only you will admit the idea that it could be so, and was likely to be so. You are all of you in the habit of supposing that temporal prosperity is owing either to worldly chance or to worldly prudence; and is never granted in any visible relation to states of religious temper. Put that treacherous doubt away from you, with disdain; take for basis of reasoning the noble postulate, that the elements of Christian faith are sound,—instead of the base one, that they are deceptive; reread the great story of the world in that light, and see what a vividly real, yet miraculous tenor, it will then bear to you.

57. Their faith then, I tell you first, was sincere; I tell you secondly that it was, in a degree few of us can now conceive, joyful. We continually hear of the trials, sometimes of the victories, of Faith,—but scarcely ever of its pleasures. Whereas, at this time, you will find that the chief delight of all good men was in the recognition of the goodness and wisdom of the Master, who had come to dwell with them upon earth. It is almost impossible for you to conceive the vividness of this sense in them; it is totally impossible for you to conceive the comfort, peace, and force of it. In everything that you now do or seek, you expose yourselves to countless miseries of shame and disappointment, because in your doing you depend on nothing but your own powers, and in seeking

choose only your own gratification. You cannot for the most part conceive of any work but for your own interests, or the interests of others about whom you are anxious in the same faithless way; everything about which passion is excited in you or skill exerted is some object of material life, and the idea of doing anything except for your own praise or profit has narrowed itself into little more than the precentor's invitation to the company with little voice and less practice to "sing to the praise and glory of God."

58. I have said that you cannot imagine the feeling of the energy of daily life applied in the real meaning of those words. You cannot imagine it, but you *can* prove it. Are any of you willing, simply as a philosophical experiment in the greatest of sciences, to adopt the principles and feelings of these men of a thousand years ago for a given time, say for a year? It cannot possibly do you any harm to try, and you cannot possibly learn what is true in these things, without trying. If after a year's experience of such method you find yourself no happier than before, at least you will be able to support your present opinions at once with more grace and more modesty; having conceded the trial it asked for, to the opposite side. Nor in acting temporarily on a faith you do not see to be reasonable, do you compromise your own integrity more, than in conducting, under a chemist's directions, an experiment of which he foretells inexplicable consequences. And you need not doubt the power you possess over your own minds to do this. Were faith not voluntary, it could not be praised, and would not be rewarded.

59. If you are minded thus to try, begin each day with Alfred's prayer,—*fiat voluntas tua*; resolving that you will stand to it, and that nothing that happens in the course of the day shall displease you. Then set to any work you have in hand with the sifted and purified resolution that ambition shall not mix with it, nor love of gain, nor desire of pleasure more than is appointed for you; and that no anxiety shall touch you as to its issue, nor any impatience nor regret if it fail. Imagine that the thing is being done through you, not

by you; that the good of it may never be known, but that at least, unless by your rebellion or foolishness, there can come no evil into it, nor wrong chance to it. Resolve also with steady industry to do what you can for the help of your country and its honor, and the honor of its God; and that you will not join hands in its iniquity, nor turn aside from its misery; and that in all you do and feel you will look frankly for the immediate help and direction, and to your own consciences, expressed approval, of God. Live thus, and believe, and with swiftness of answer proportioned to the frankness of the trust, most surely the God of hope will fill you with all joy and peace in believing.

60. But, if you will not do this, if you have not courage nor heart enough to break away the fetters of earth, and take up the sensual bed of it, and walk; if you say that you are *bound* to win this thing, and become the other thing, and that the wishes of your friends,—and the interests of your family,—and the bias of your genius,—and the expectations of your college,—and all the rest of the bow-wow-wow of the wild dog-world, must be attended to, whether you like it or no,—then, at least, for shame give up talk about being free or independent creatures; recognize yourselves for slaves in whom the thoughts are put in ward with their bodies, and their hearts manacled with their hands: and then at least also, for shame, if you refuse to believe that ever there were men who gave their souls to God,—know and confess how surely there are those who sell them to His adversary.

LECTURE III.

THE PLEASURES OF DEED.

ALFRED TO CŒUR DE LION.

Delivered 1st and 3rd November, 1884.

61. IT was my endeavor, in the preceding lecture, to vindicate the thoughts and arts of our Saxon ancestors from whatever scorn might lie couched under the terms applied to them by Dean Stanley,—‘fantastic,’ and ‘childish.’ To-day my task must be carried forward, first, in asserting the grace in fantasy, and the force in infancy, of the English mind, before the Conquest, against the allegations contained in the final passage of Dean Stanley’s description of the first founded Westminster; a passage which accepts and asserts, more distinctly than any other equally brief statement I have met with, the to my mind extremely disputable theory, that the Norman invasion was in every respect a sanitary, moral, and intellectual blessing to England, and that the arrow which slew her Harold was indeed the Arrow of the Lord’s deliverance.

62. “The Abbey itself,” says Dean Stanley,—“the chief work of the Confessor’s life,—was the portent of the mighty future. When Harold stood beside his sister Edith, on the day of the dedication, and signed his name with hers as witness to the Charter of the Abbey, he might have seen that he was sealing his own doom, and preparing for his own destruction. The solid pillars, the ponderous arches, the huge edifice, with triple tower and sculptured stones and storied windows, that arose in the place and in the midst of the humble wooden churches and wattled tenements of the Saxon

period, might have warned the nobles who were present that the days of their rule were numbered, and that the *avenging, civilizing, stimulating* hand of another and a mightier race was at work, which would change the whole face of their language, their manners, their Church, and their commonwealth. The Abbey, so far exceeding the demands of the *dull and stagnant* minds of our Anglo-Saxon ancestors, was founded not only in faith, but in hope: in the hope that England had yet a glorious career to run; that the line of her sovereigns would not be broken, even when the race of Alfred had ceased to reign."

There must surely be some among my hearers who are startled, if not offended, at being told in the terms which I emphasized in this sentence, that the minds of our Saxon fathers were, although fantastic, dull, and, although childish, stagnant; that farther, in their fantastic stagnation, they were savage,—and in their innocent dullness, criminal; so that the future character and fortune of the race depended on the critical advent of the didactic and disciplinarian Norman baron, at once to polish them, stimulate, and chastise.

63. Before I venture to say a word in distinct arrest of this judgment, I will give you a chart, as clear as the facts observed in the two previous lectures allow, of the state and prospects of the Saxons, when this violent benediction of conquest happened to them: and especially I would rescue, in the measure that justice bids, the memory even of their Pagan religion from the general scorn in which I used Carlyle's description of the idol of ancient Prussia as universally exponent of the temper of Northern devotion. That Triglyph, or Triglyph Idol, (derivation of Triglyph wholly unknown to me—I use Triglyph only for my own handiest epithet), last set up, on what is now St. Mary's hill in Brandenburg, in 1023, belonged indeed to a people wonderfully like the Saxons,—geographically their close neighbors,—in habits of life, and aspect of native land, scarcely distinguishable from them,—in Carlyle's words, a "strong-boned, iracund, herdsman and fisher people, highly averse to be interfered

with, in their religion especially, and inhabiting a moory flat country, full of lakes and woods, but with plenty also of alluvial mud, grassy, frugiferous, apt for the plow"—in all things like the Saxons, except, as I read the matter, in that 'aversion to be interfered with' which you modern English think an especially Saxon character in you,—but which is, on the contrary, you will find on examination, by no means Saxon; but only Wendisch, Czech, Serbic, Sclavic,—other hard names I could easily find for it among the tribes of that vehemently heathen old Preussen—"resolutely worshipful of places of oak trees, of wooden or stone idols, of Bangputtis, Patkullos, and I know not what diabolic dumb blocks." Your English "dislike to be interfered with" is in absolute fellowship with these, but only gathers itself in its places of Stalks, or chimneys, instead of oak trees, round its idols of iron, instead of wood, diabolically *vocal* now; strident, and sibilant, instead of dumb.

64. Far other than these, their neighbor Saxons, Jutes and Angles!—tribes between whom the distinctions are of no moment whatsoever, except that an English boy or girl may with grace remember that 'Old England,' exactly and strictly so called, was the small district in the extreme south of Denmark, totally with its islands estimable at sixty miles square of dead flat land. Directly south of it, the definitely so-called Saxons held the western shore of Holstein, with the estuary of the Elbe, and the seamarke isle, Heligoland. But since the principal temple of Saxon worship was close to Leipsic,* we may include under our general term, Saxons, the inhabitants of the whole level district of North Germany, from the Gulf of Flensburg to the Hartz; and, eastward, all the country watered by the Elbe as far as Saxon Switzerland.

65. Of the character of this race I will not here speak at any length: only note of it this essential point, that their religion was at once more practical and more imaginative than that of the Norwegian peninsula; the Norse religion being the conception rather of natural than moral powers, but the

* Turner, vol. i., p. 223.

Saxon, primarily of moral, as the lords of natural—their central divine image, Irminsul,* holding the standard of peace in her right hand, a balance in her left. Such a religion may degenerate into mere slaughter and rapine; but it has the making in it of the noblest men.

More practical at all events, whether for good or evil, in this trust in a future reward for courage and purity, than the mere Scandinavian awe of existing Earth and Cloud, the Saxon religion was also more imaginative, in its nearer conception of human feeling in divine creatures. And when this wide hope and high reverence had distinct objects of worship and prayer, offered to them by Christianity, the Saxons easily became pure, passionate, and thoughtful Christians; while the Normans, to the last, had the greatest difficulty in apprehending the Christian teaching of the Franks, and still deny the power of Christianity, even when they have become inveterate in its form.

Quite the deepest-thoughted creatures of the then animate world, it seems to me, these Saxon plowmen of the sand or the sea, with their worshiped deity of Beauty and Justice, a red rose on her banner, for best of gifts, and in her right hand, instead of a sword, a balance, for due doom, without wrath,—of retribution in her left. Far other than the Wends, though stubborn enough, they too, in battle rank,—seven times rising from defeat against Charlemagne, and unsubdued but by death—yet, by no means in that John Bull's manner of yours, 'averse to be interfered with,' in their opinions, or their religion. Eagerly docile on the contrary—joyfully reverent—instantly and gratefully acceptant of whatever better insight or oversight a stranger could bring them, of the things of God or man.

66. And let me here ask you especially to take account of that origin of the true bearing of the Flag of England, the Red Rose. Her own madness defiled afterwards alike the white and red, into images of the paleness, or the crimson,

* Properly plural 'Images'—Irminsul and Irminsula.

of death; but the Saxon Rose was the symbol of heavenly beauty and peace.

I told you in my first lecture that one swift requirement in our school would be to produce a beautiful map of England, including old Northumberland, giving the whole country, in its real geography, between the Frith of Forth and Straits of Dover, and with only six sites of habitation given, besides those of Edinburgh and London,—namely, those of Canterbury and Winchester, York and Lancaster, Holy Island and Melrose; the latter instead of Iona, because, as we have seen, the influence of St. Columba expires with the advance of Christianity, while that of Cuthbert of Melrose connects itself with the most sacred feelings of the entire Northumbrian kingdom, and Scottish border, down to the days of Scott—wreathing also into its circle many of the legends of Arthur. Will you forgive my connecting the personal memory of having once had a wild rose gathered for me, in the glen of Thomas the Rhymer, by the daughter of one of the few remaining Catholic houses of Scotland, with the pleasure I have in reading to you this following true account of the origin of the name of St. Cuthbert's birthplace;—the rather because I owe it to friendship of the same date, with Mr. Cockburn Muir, of Melrose.

67. "To those who have eyes to read it," says Mr. Muir, "the name 'Melrose' is written full and fair, on the fair face of all this reach of the valley. The name is anciently spelt Mailros, and later, Malros, never Mulros; ('Mul' being the Celtic word taken to mean 'bare'). Ros is Rose; the forms Meal or Mol imply great quantity or number. Thus Malros means the place of many roses.

"This is precisely the notable characteristic of the neighborhood. The wild rose is indigenous. There is no nook nor cranny, no bank nor brae, which is not, in the time of roses, ablaze with their exuberant loveliness. In gardens, the cultured rose is so prolific that it spreads literally like a weed. But it is worth suggestion that the word may be of the same stock as the Hebrew *rôsh* (translated *rôs* by the Septuagint),

meaning *chief*, *principal*, while it is also the name of *some* flower; but of *which* flower is now unknown. Affinities of *rôsh* are not far to seek; Sanskrit, *Raj(a)*. *Ra(ja)ni*; Latin, *Rex*, *Reg(ina)*."

I leave it to Professor Max Muller to certify or correct for you the details of Mr. Cockburn's research,*—this main head of it I can positively confirm, that in old Scotch,—that of Bishop Douglas,—the word 'Rois' stands alike for King, and Rose.

68. Summing now the features I have too shortly specified in the Saxon character,—its imagination, its docility, its love of knowledge, and its love of beauty, you will be prepared to accept my conclusive statement, that they gave rise to a form of Christian faith which appears to me, in the present state of my knowledge, one of the purest and most intellectual ever attained in Christendom;—never yet understood, partly because of the extreme rudeness of its expression in the art of manuscripts, and partly because, on account of its very purity, it sought no expression in architecture, being a religion

* I had not time to quote it fully in the lecture; and in my ignorance, alike of Keltic and Hebrew, can only submit it here to the reader's examination. "The ancient Cognizance of the town confirms this etymology beyond doubt, with customary heraldic precision. The shield bears a *Rose*; with a *Maul*, as the exact phonetic equivalent for the expletive. If the herald had needed to express 'bare promontory,' quite certainly he would have managed it somehow. Not only this, the Earls of Haddington were first created Earls of *Melrose* (1619); and their Shield, quarterly, is charged, for *Melrose*, in 2nd and 3rd (fesse wavy between) three *Roses* gu.

"Beyond this ground of certainty, we may indulge in a little excursus into lingual affinities of wide range. The root *mol* is clear enough. It is of the same stock as the Greek *mála*, Latin *mul(tum)*, and Hebrew *m'la*. But, *Rose*? We call her Queen of Flowers, and since before the Persian poets made much of her, she was everywhere *Regina Florum*. Why should not the name mean simply the Queen, the Chief? Now, so few who know Keltic know also Hebrew, and so few who know Hebrew know also Keltic, that few know the surprising extent of the affinity that exists—clear as day—between the Keltic and the Hebrew vocabularies. That the word *Rose* may be a case in point is not hazardously speculative."

of daily life, and humble lodging. For these two practical reasons, first;—and for this more weighty third, that the intellectual character of it is at the same time most truly, as Dean Stanley told you, childlike; showing itself in swiftness of imaginative apprehension, and in the fearlessly candid application of great principles to small things. Its character in this kind may be instantly felt by any sympathetic and gentle person who will read carefully the book I have already quoted to you, the Venerable Bede's life of St. Cuthbert; and the intensity and sincerity of it in the highest orders of the laity, by simply counting the members of Saxon Royal families who ended their lives in monasteries.

69. Now, at the very moment when this faith, innocence, and ingenuity were on the point of springing up into their fruitage, comes the Northern invasion; of the real character of which you can gain a far truer estimate by studying Alfred's former resolute contest with and victory over the native Norman in his paganism, than by your utmost endeavors to conceive the character of the afterwards invading Norman, disguised, but not changed, by Christianity. The Norman could not, in the nature of him, become a *Christian* at all; and he never did;—he only became, at his best, the enemy of the Saracen. What he was, and what alone he was capable of being, I will try to-day to explain.

70. And here I must advise you that in all points of history relating to the period between 800 and 1200, you will find M. Viollet le Due, incidentally throughout his 'Dictionary of Architecture,' the best-informed, most intelligent, and most thoughtful of guides. His knowledge of architecture, carried down into the most minutely practical details,—(which are often the most significant), and embracing, over the entire surface of France, the buildings even of the most secluded villages; his artistic enthusiasm, balanced by the acutest sagacity, and his patriotism, by the frankest candor, renders his analysis of history during that active and constructive period the most valuable known to me, and certainly, in its field, exhaustive. Of the later nationality his account is

imperfect, owing to his professional interest in the mere *science* of architecture, and comparative insensibility to the power of sculpture;—but of the time with which we are now concerned, whatever he tells you must be regarded with grateful attention.

71. I introduce, therefore, the Normans to you, on their first entering France, under his descriptive terms of them.*

“As soon as they were established on the soil, these barbarians became the most hardy and active builders. Within the space of a century and a half, they had covered the country, on which they had definitely landed, with religious, monastic, and civil edifices, of an extent and richness then little common. It is difficult to suppose that they had brought from Norway the elements of art,† but they were possessed by a persisting and penetrating spirit; their brutal force did not want for grandeur. Conquerors, they raised castles to assure their domination; they soon recognized the Moral force of the clergy, and endowed it richly. Eager always to attain their end, when once they saw it, they *never left one of their enterprises unfinished*, and in that they differed completely from the Southern inhabitants of Gaul. Tenacious extremely, they were perhaps the only ones among the barbarians established in France who had ideas of order; the only ones who knew how to preserve their conquests, and compose a state. They found the remains of the Carthaginian arts on the territory where they planted themselves, they mingled with those their national genius, positive, grand, and yet supple.”

72. Supple, ‘*Délié*,’—capable of change and play of the mental muscle, in the way that savages are not. I do not, myself, grant this suppleness to the Norman, the less because another sentence of M. le Duc’s, occurring incidentally in his account of the archivolt, is of extreme counter-significance, and wide application. “The Norman arch,” he says, “is *never derived from traditional classic forms*, but only from

* Article “Architecture,” vol. i., p. 138.

† They *had* brought some, of a variously Charybdic, Serpentine, and Diabolic character.—J. R.

mathematical arrangement of line." Yes; that is true: the Norman arch is never derived from classic forms. The cathedral,* whose aisles you saw or might have seen, yesterday, interpenetrated with light, whose vaults you might have heard prolonging the sweet divisions of majestic sound, would have been built in that stately symmetry by Norman law, though never an arch at Rome had risen round her field of blood,—though never her Sublician bridge had been petrified by her Augustan pontifices. But the *decoration*, though not the structure of those arches, they owed to another race,† whose words they stole without understanding, though three centuries before, the Saxon understood, and used, to express the most solemn majesty of his Kingdom,—

“ EGO EDGAR, TOTIVS ALBIONIS ”—

not Rex, that would have meant the King of Kent or Mercia, not of England,—no, nor Imperator; that would have meant only the profane power of Rome, but *BASILEVS*, meaning a King who reigned with sacred authority given by Heaven and Christ.

73. With far meaner thoughts, both of themselves and their powers, the Normans set themselves to build impregnable military walls, and sublime religious ones, in the best possible practical ways; but they no more made books of their church fronts than of their bastion flanks; and cared, in the religion they accepted, neither for its sentiments nor its promises, but only for its immediate results on national order.

As I read them, they were men wholly of this world, bent on doing the most in it, and making the best of it that they could;—men, to their death, of *Deed*, never pausing, changing, repenting, or anticipating, more than the completed square, *ἀνευ ψόγου*, of their battle, their keep, and their cloister. Soldiers before and after everything, they learned the lockings and bracings of their stones primarily in defense

* Of Oxford, during the afternoon service.

† See the concluding section of the lecture.

against the battering-ram and the projectile, and esteemed the pure circular arch for its distributed and equal strength more than for its beauty. "I believe again," says M. le Duc,* "that the feudal castle never arrived at its perfectness till after the Norman invasion, and that this race of the North was the first to apply a defensive system under unquestionable laws, soon followed by the nobles of the Continent, after they had, at their own expense, learned their superiority."

74. The next sentence is a curious one. I pray your attention to it. "The defensive system of the Norman is born of a profound sentiment of *distrust* and *cunning*, foreign to the character of the Frank." You will find in all my previous notices of the French, continual insistence upon their natural Franchise, and also, if you take the least pains in analysis of their literature down to this day, that the idea of falseness is to them indeed more hateful than to any other European nation. To take a quite cardinal instance. If you compare Lucian's and Shakespeare's Timon with Molière's Alceste, you will find the Greek and English misanthropes dwell only on men's *ingratitude* to themselves, but Alceste, on their *falsehood* to each other.

Now hear M. le Duc farther:

"The castles built between the tenth and twelfth centuries along the Loire, Gironde, and Seine, that is to say, along the lines of the Norman invasions, and in the neighborhood of their possessions, have a peculiar and uniform character which one finds neither in central France, nor in Burgundy, nor can there be any need for us to throw light on (*faire ressortir*) the superiority of the warrior spirit of the Normans, during the later times of the Carolingian epoch, over the spirit of the chiefs of Frank descent, established on the Gallo-Roman soil." There's a bit of honesty in a Frenchman for you!

75. I have just said that they valued religion chiefly for its influence of order in the present world: being in this, observe, as nearly as may be the exact reverse of modern

* Article "Château," vol. iii., p. 65.

believers, or persons who profess to be such,—of whom it may be generally alleged, too truly, that they value religion with respect to their future bliss rather than their present duty; and are therefore continually careless of its direct commands, with easy excuse to themselves for disobedience to them. Whereas the Norman, finding in his own heart an irresistible impulse to action, and perceiving himself to be set, with entirely strong body, brain, and will, in the midst of a weak and dissolute confusion of all things, takes from the Bible instantly into his conscience every exhortation to Do and to Govern; and becomes, with all his might and understanding, a blunt and rough servant, knecht, or knight of God, liable to much misapprehension, of course, as to the services immediately required of him, but supposing, since the whole make of him, outside and in, is a soldier's, that God meant him for a soldier, and that he is to establish, by main force, the Christian faith and works all over the world so far as he comprehends them; not merely with the Mahometan indignation against spiritual error, but with a sound and honest soul's dislike of material error, and resolution to extinguish *that*, even if perchance found in the spiritual persons to whom, in their office, he yet rendered total reverence.

76. Which force and faith in him I may best illustrate by merely putting together the broken paragraphs of Sismondi's account of the founding of the Norman Kingdom of Sicily: virtually contemporary with the conquest of England.

“The Normans surpassed all the races of the west in their ardor for pilgrimages. They would not, to go into the Holy Land, submit to the monotony* of a long sea voyage—the rather that they found not on the Mediterranean the storms or dangers they had rejoiced to encounter on their own sea. They traversed by land the whole of France and Italy, trusting to their swords to procure the necessary subsistence,† if

* I give Sismondi's idea as it stands, but there was no question in the matter of monotony or of danger. The journey was made on foot because it was the most laborious way, and the most humble.

† See farther on, § 80, the analogies with English arrangements of the same kind.

the charity of the faithful did not enough provide for it with alms. The towns of Naples, Amalfi, Gaeta, and Bari, held constant commerce with Syria; and frequent miracles, it was believed, illustrated the Monte Cassino (St. Benedict again!) on the road of Naples, and the Mount of Angels (Garganus) above Bari." (Querceta Gargani—verily, laborant; *now*, et orant.) "The pilgrims wished to visit during their journey the monasteries built on these two mountains, and therefore nearly always, either going or returning to the Holy Land, passed through Magna Græcia.

"In one of the earliest years of the eleventh century, about forty of these religious travelers, having returned from the Holy Land, chanced to have met together in Salerno at the moment when a small Saracen fleet came to insult the town, and demand of it a military contribution. The inhabitants of South Italy, at this time, abandoned to the delights of their enchanted climate, had lost nearly all military courage. The Salernitani saw with astonishment forty Norman knights, after having demanded horses and arms from the Prince of Salerno, order the gates of the town to be opened, charge the Saracens fearlessly, and put them to flight. The Salernitani followed, however, the example given them by these brave warriors, and those of the Mussulmans who escaped their swords were forced to re-embark in all haste.

77. "The Prince of Salerno, Guaimar III., tried in vain to keep the warrior-pilgrims at his court: but at his solicitation other companies established themselves on the rocks of Salerno and Amalfi, until, on Christmas Day, 1041, (exactly a quarter of a century before the coronation here at Westminster of the Conqueror,) they gathered their scattered forces at Aversa,* twelve groups of them under twelve chosen counts, and all under the Lombard Ardoïn, as commander-in-chief." Be so good as to note that,—a marvelous key-note of historical fact about the unjesting Lombards. I cannot find the total Norman number: the chief contingent, under William of the Iron Arm, the son of Tancred of Hauteville, was only

* In Lombardy, south of Pavia.

of three hundred knights; the Count of Aversa's troop, of the same number, is named as an important part of the little army—admit it for ten times Tancred's, three thousand men in all. At Aversa, these three thousand men form, coolly on Christmas Day, 1041, the design of—well, I told you they didn't *design* much, only, now we're here, we may as well, while we're about it,—overthrow the Greek empire! That was their little game!—a Christmas mumming to purpose. The following year, the whole of Apulia was divided among them.

78. I will not spoil, by abstracting, the magnificent following history of Robert Guiscard, the most wonderful soldier of that or any other time: I leave you to finish it for yourselves, only asking you to read together with it, the sketch, in Turner's history of the Anglo-Saxons, of Alfred's long previous war with the Norman Hasting; pointing out to you for foci of character in each contest, the culminating incidents of naval battle. In Guiscard's struggle with the Greeks, he encounters for their chief naval force the Venetian fleet under the Doge Domenico Selvo. The Venetians are at this moment undoubted masters in all naval warfare; the Normans are worsted easily the first day,—the second day, fighting harder, they are defeated again, and so disastrously that the Venetian Doge takes no precautions against them on the third day, thinking them utterly disabled. Guiscard attacks him again on the third day, with the mere wreck of his own ships, and defeats the tired and amazed Italians finally!

79. The sea-fight between Alfred's ships and those of Hasting, ought to be still more memorable to us. Alfred, as I noticed in last lecture, had built war ships nearly twice as long as the Normans', swifter, and steadier on the waves. Six Norman ships were ravaging the Isle of Wight; Alfred sent nine of his own to take them. The King's fleet found the Northmen's embayed, and three of them aground. The three others *engaged Alfred's nine, twice their size*; two of the Viking ships were taken, but the third escaped, with only

five men! A nation which verily took its pleasures in its Deeds.

80. But before I can illustrate farther either their deeds or their religion, I must for an instant meet the objection which I suppose the extreme probity of the nineteenth century must feel acutely against these men,—that they all lived by thieving.

Without venturing to allude to the *raison d'être* of the present French and English Stock Exchanges, I will merely ask any of you here, whether of Saxon or Norman blood, to define for himself what he means by the “possession of India.” I have no doubt that you all wish to keep India in order, and in like manner I have assured you that Duke William wished to keep England in order. If you will read the lecture on the life of Sir Herbert Edwardes, which I hope to give in London after finishing this course,* you will see how a Christian British officer can, and does, verily, and with his whole heart, keep in order such part of India as may be intrusted to him, and in so doing, secure our Empire. But the silent feeling and practice of the nation about India is based on quite other motives than Sir Herbert’s. Every mutiny, every danger, every terror, and every crime, occurring under, or paralyzing, our Indian legislation, arises directly out of our national desire to live on the loot of India, and the notion always entertained by English young gentlemen and ladies of good position, falling in love with each other without immediate prospect of establishment in Belgrave Square, that they can find in India, instantly on landing, a bungalow ready furnished with the loveliest fans, china, and shawls,—ices and sherbet at command,—four-and-twenty slaves succeeding each other hourly to swing the punkah, and a regiment with a beautiful band to “keep order” outside, all round the house.

* This was prevented by the necessity for the re-arrangement of my terminal Oxford lectures: I am now preparing that on Sir Herbert for publication in a somewhat expanded form. [See now ‘Bibl. Past.’ vol. iv., “A Knight’s Faith,” Ed. 1898.]

81. Entreating your pardon for what may seem rude in these personal remarks, I will further entreat you to read my account of the death of Cœur de Lion in the third number of 'Fors Clavigera'—and also the scenes in 'Ivanhoe' between Cœur de Lion and Locksley; and commending these few passages to your quiet consideration, I proceed to give you another anecdote or two of the Normans in Italy, twelve years later than those given above, and, therefore, only thirteen years before the battle of Hastings.

Their division of South Italy among them especially, and their defeat of Venice, had alarmed everybody considerably,—especially the Pope, Leo IX., who did not understand this manifestation of their piety. He sent to Henry III. of Germany, to whom he owed his Popedom, for some German knights, and got five hundred spears; gathered out of all Apulia, Campania, and the March of Ancona, what Greek and Latin troops were to be had, to join his own army of the patrimony of St. Peter; and the holy Pontiff, with this numerous army, but no general, began the campaign by a pilgrimage with all his troops to Monte Cassino, in order to obtain, if it might be, St. Benedict for general.

82. Against the Pope's collected masses, with St. Benedict, their contemplative but at first inactive general, stood the little army of Normans,—certainly not more than the third of their number—but with Robert Guiscard for captain, and under him his brother, Humphrey of Hauteville, and Richard of Aversa. Not in fear, but in devotion, they prayed the Pope 'avec instance,'—to say on what conditions they could appease his anger, and live in peace under him. But the Pope would hear of nothing but their evacuation of Italy. Whereupon, they had to settle the question in the Norman manner.

The two armies met in front of Civitella, on Waterloo day, 18th June, thirteen years, as I said, before the battle of Hastings. The German knights were the heart of the Pope's army, but they were only five hundred; the Normans surrounded *them* first, and slew them, nearly to a man—and

then made extremely short work with the Italians and Greeks. The Pope, with the wreck of them, fled into Civitella; but the townspeople dared not defend their walls, and thrust the Pope himself out of their gates—to meet, alone, the Norman army.

He met it, *not* alone, St. Benedict being with him now, when he had no longer the strength of man to trust in.

The Normans, as they approached him, threw themselves on their knees,—covered themselves with dust, and implored his pardon and his blessing.

83. There's a bit of poetry—if you like,—but a piece of steel-clad fact also, compared to which the battles of Hastings and Waterloo both, were mere boys' squabbles.

You don't suppose, you British school-boys, that *you* overthrew Napoleon—*you*? Your prime Minister folded up the map of Europe at the thought of him. Not you, but the snows of Heaven, and the hand of Him who dasheth in pieces with a rod of iron. He casteth forth His ice like morsels,—who can stand before His cold?

But, so far as you have indeed the right to trust in the courage of your own hearts, remember also—it is not in Norman nor Saxon, but in Celtic race that your real strength lies. The battles both of Waterloo and Alma were won by Irish and Scots—by the terrible Scots Greys, and by Sir Colin's Highlanders. Your 'thin red line,' was kept steady at Alma only by Colonel Yea's swearing at them.

84. But the old Pope, alone against a Norman army, wanted nobody to swear at him. Steady enough he, having somebody to bless him, instead of swear at him. St. Benedict, namely; whose (memory shall we say?) helped him now at his pinch in a singular manner,—for the Normans, having got the old man's forgiveness, vowed themselves his feudal servants; and for seven centuries afterwards the whole kingdom of Naples remained a fief of St. Peter,—won for him thus by a single man, unarmed, against three thousand Norman knights, captained by Robert Guiscard!

A day of deeds, gentlemen, to some purpose,—*that* 18th of June, anyhow.

85. Here, in the historical account of Norman character, I must unwillingly stop for to-day—because, as you choose to spend your University money in building ball-rooms instead of lecture-rooms, I dare not keep you much longer in this black hole, with its nineteenth century ventilation. I try your patience—and tax your breath—only for a few minutes more in drawing the necessary corollaries respecting Norman art.*

How far the existing British nation owes its military prowess to the blood of Normandy and Anjou, I have never examined its genealogy enough to tell you;—but this I can tell you positively, that whatever constitutional order or personal valor the Normans enforced or taught among the nations they conquered, they did not at first attempt with their own hands to rival them in any of their finer arts, but used both Greek and Saxon sculptors, either as slaves, or hired workmen, and more or less therefore chilled and degraded the hearts of the men thus set to servile, or at best, hireling, labor.

86. In 1874, I went to see Etna, Scylla, Charybdis, and the tombs of the Norman Kings at Palermo; surprised, as you may imagine, to find that there wasn't a stroke nor a notion of Norman work in them. They are, every atom, done by Greeks, and are as pure Greek as the temple of Ægina; but more rich and refined. I drew with accurate care, and with measured profile of every molding, the tomb built for Roger II. (afterwards Frederick II. was laid in its dark porphyry). And it is a perfect type of the Greek-Christian form of tomb—temple over sarcophagus, in which the

* Given at much greater length in the lecture, with diagrams from Iffley and Poitiers, without which the text of them would be unintelligible. The sum of what I said was a strong assertion of the incapacity of the Normans for any but the rudest and most grotesque sculpture,—Poitiers being, on the contrary, examined and praised as Gallic-French—not Norman.

pediments rise gradually, as time goes on, into acute angles—get pierced in the gable with foils, and their sculptures thrown outside on their flanks, and become at last in the fourteenth century, the tombs of Verona. But what is the meaning of the Normans employing these Greek slaves for their work in Sicily (within thirty miles of the field of Himera)? Well, the main meaning is that though the Normans could build, they couldn't carve, and were wise enough not to try to, when they couldn't, as you do now all over this intensely comic and tragic town: but, here in England, they only employed the Saxon with a grudge, and therefore being more and more driven to use barren moldings without sculpture, gradually developed the structural forms of archivolt, which breaking into the lancet, brighten and balance themselves into the symmetry of Early English Gothic.

87. But even for the first decoration of the archivolt itself, they were probably indebted to the Greeks in a degree I never apprehended, until by pure happy chance, a friend gave me the clue to it just as I was writing the last pages of this lecture.

In the generalization of ornament attempted in the first volume of the 'Stones of Venice,' I supposed the Norman zigzag (and with some practical truth) to be derived from the angular notches with which the blow of an ax can most easily decorate, or at least vary, the solid edge of a square fillet. My good friend, and supporter, and for some time back the single trustee of St. George's Guild, Mr. George Baker, having come to Oxford on Guild business, I happened to show him the photographs of the front of Iffley church, which had been collected for this lecture; and immediately afterwards, in taking him through the schools, stopped to show him the Athena of Ægina as one of the most important of the Greek examples lately obtained for us by Professor Richmond. The statue is (rightly) so placed that in looking up to it, the plait of hair across the forehead is seen in a steeply curved arch. "Why," says Mr. Baker, point-

ing to it, "there's the Norman arch of Iffley." Sure enough, there it exactly was: and a moment's reflection showed me how easily, and with what instinctive fitness, the Norman builders, looking to the Greeks as their absolute masters in sculpture, and recognizing also, during the Crusades, the hieroglyphic use of the zigzag, for water, by the Egyptians, might have adopted this easily attained decoration at once as the sign of the element over which they reigned, and of the power of the Greek Goddess who ruled both it and them.

88. I do not in the least press your acceptance of such a tradition, nor for the rest, do I care myself whence any method of ornament is derived, if only, as a stranger, you bid it reverent welcome. But much probability is added to the conjecture by the indisputable transition of the Greek egg and arrow molding into the floral cornices of Saxon and other twelfth century cathedrals in Central France. These and other such transitions and exaltations I will give you the materials to study at your leisure, after illustrating in my next lecture the forces of religious imagination by which all that was most beautiful in them was inspired.

LECTURE IV.

THE PLEASURES OF FANCY.

CŒUR DE LION TO ELIZABETH.

Delivered 8th and 10th November, 1884.

89. IN using the word "Fancy," for the mental faculties of which I am to speak to-day, I trust you, at your leisure, to read the Introductory Note to the second volume of 'Modern Painters' in the small new edition,* which gives sufficient reason for practically including under the single term Fancy, or Fantasy, all the energies of the Imagination,—in the terms of the last sentence of that preface,—“the healthy, voluntary, and necessary,† action of the highest powers of the human mind, on subjects properly demanding and justifying their exertion.”

90. I must farther ask you to read, in the same volume, the close of the chapter 'Of Imagination Penetrative,' §§ 29–33, of which the gist, which I must give as the first principle from which we start in our to-day's inquiry, is that "Imagination, rightly so called, has no food, no delight, no care, no perception, except of truth; it is for ever looking under masks, and burning up mists; no fairness of form, no majesty of seeming, will satisfy it; the first condition of its existence is incapability of being deceived."‡ In that sentence, which is a part, and a very valuable part, of the

* [*i.e.* the separate edition of 1883.

† Meaning that all healthy minds possess imagination, and use it at will, under fixed laws of truthful perception and memory.

‡ Vide § 29.

original book, I still adopted and used unnecessarily the ordinary distinction between Fancy and Imagination—Fancy concerned with lighter things, creating fairies or centaurs, and Imagination creating men; and I was in the habit always of implying by the meaner word Fancy, a voluntary Fallacy, as Wordsworth does in those lines to his wife, making of her a mere lay figure for the drapery of his fancy—

Such if thou wert, in all men's view
 An universal show,
 What would my Fancy have to do,
 My feelings to bestow.

But you will at once understand the higher and more universal power which I now wish you to understand by the Fancy, including all imaginative energy, correcting these lines of Wordsworth's to a more worthy description of a true lover's happiness. When a boy falls in love with a girl, you say he has taken a fancy for her; but if he love her rightly, that is to say for her noble qualities, you ought to say he has taken an imagination for her; for then he is endued with the new light of love which sees and tells of the mind in her,—and this neither falsely nor vainly. His love does not bestow, it discovers, what is indeed most precious in his mistress, and most needful for his own life and happiness. Day by day, as he loves her better, he discerns her more truly; and it is only the truth of his love that does so. Falsehood to her, would at once disenchant and blind him.

91. In my first lecture of this year,* I pointed out to you with what extreme simplicity and reality the Christian faith must have presented itself to the Northern Pagan's mind, in its distinction from his former confused and monstrous mythology. It was also in that simplicity and tangible reality of conception, that this Faith became to them, and to the other savage nations of Europe, Tutress of the real power of their imagination; and it became so, only in so far as it indeed conveyed to them statements which, however in some respects mysterious, were yet most literally and brightly

* Ante, § 12 *et seqq.*

true, as compared with their former conceptions. So that while the blind cunning of the savage had produced only misshapen logs or scrawls; the *seeing* imagination of the Christian painters created, for them and for all the world, the perfect types of the Virgin and of her Son; which became, indeed, Divine, by being, with the most affectionate truth, human.

92. And the association of this truth in loving conception, with the general honesty and truth of the character, is again conclusively shown in the feelings of the lover to his mistress; which we recognize as first reaching their height in the days of chivalry. The truth and faith of the lover, and his piety to Heaven, are the foundation, in his character, of all the joy in imagination which he can receive from the conception of his lady's—now no more mortal—beauty. She is indeed transfigured before him; but the truth of the transfiguration is greater than that of the lightless aspect she bears to others. When therefore, in my next lecture, I speak of the Pleasures of Truth, as distinct from those of the Imagination,—if either the limits or clearness of brief title had permitted me, I should have said, *untransfigured* truth;—meaning on the one side, truth which we have not heart enough to transfigure, and on the other, truth of the lower kind which is incapable of transfiguration. One may look at a girl till one believes she is an angel; because, in the best of her, she *is* one; but one can't look at a cockchafer till one believes it is a girl.

93. With this warning of the connection which exists between the honest intellect and the healthy imagination; and using henceforward the shorter word 'Fancy' for all inventive vision, I proceed to consider with you the meaning and consequences of the frank and eager exertion of the fancy on Religious subjects, between the twelfth and sixteenth centuries.

Its first, and admittedly most questionable action, the promotion of the group of martyr saints of the third century to thrones of uncontested dominion in heaven, had better be

distinctly understood, before we debate of it, either with the Iconoclast or the Rationalist. This apotheosis by the Imagination is the subject of my present lecture. To-day I only describe it,—in my next lecture I will discuss it.

94. Observe, however, that in giving such a history of the mental constitution of nascent Christianity, we have to deal with, and carefully to distinguish, two entirely different orders in its accepted hierarchy:—one, scarcely founded at all on personal characters or acts, but mythic or symbolic; often merely the revival, the baptized resuscitation of a Pagan deity, or the personified omnipresence of a Christian virtue;—the other, a senate of Patres Conscripti of real persons, great in genius, and perfect, humanly speaking, in holiness; who by their personal force and inspired wisdom, wrought the plastic body of the Church into such noble form as in each of their epochs it was able to receive; and on the right understanding of whose lives, nor less of the affectionate traditions which magnified and illumined their memories, must absolutely depend the value of every estimate we form, whether of the nature of the Christian Church herself, or of the directness of spiritual agency by which she was guided.*

An important distinction, therefore, is to be noted at the outset, in the objects of this Apotheosis, according as they are, or are not, real persons.

95. Of these two great orders of Saints, the first, or mythic, belongs—speaking broadly—to the southern or Greek Church alone.

The Gothic Christians, once detached from the worship of Odin and Thor, abjure from their hearts all trust in the elements, and all worship of ideas. They will have their Saints in flesh and blood, their Angels in plume and armor; and nothing incorporeal or invisible. In all the Religious sculpture beside Loire and Seine, you will not find either of the great rivers personified; the dress of the highest seraph

* If the reader believes in no spiritual agency, still his understanding of the first letters in the Alphabet of History depends on his comprehending rightly the tempers of the people who *did*.

is of true steel or sound broadcloth, neither flecked by hail, nor fringed by thunder; and while the ideal Charity of Giotto at Padua presents her heart in her hand to God, and tramples at the same instant on bags of gold, the treasures of the world, and gives only corn and flowers; that on the west porch of Amiens is content to clothe a beggar with a piece of the staple manufacture of the town.

On the contrary, it is nearly impossible to find in the imagery of the Greek Church, under the former exercise of the Imagination, a representation either of man or beast which purports to represent *only* the person, or the brute. Every mortal creature stands for an Immortal Intelligence or Influence: a Lamb means an Apostle, a Lion an Evangelist, an Angel the Eternal justice or benevolence; and the most historical and indubitable of Saints are compelled to set forth, in their vulgarly apparent persons, a Platonic myth or an Athanasian article.

96. I therefore take note first of the mythic saints in succession, whom this treatment of them by the Byzantine Church made afterwards the favorite idols of all Christendom.

I. The most mythic is of course St. Sophia; the shade of the Greek Athena, passing into the 'Wisdom' of the Jewish Proverbs and Psalms, and the Apocryphal 'Wisdom of Solomon.' She always remains understood as a personification only; and has no direct influence on the mind of the unlearned multitude of Western Christendom, except as a godmother,—in which kindly function she is more and more accepted as times go on; her healthy influence being perhaps greater over sweet vicars' daughters in Wakefield—when Wakefield *was*,—than over the prudentest of the rarely prudent Empreses of Byzantium.

II. Of St. Catharine of Egypt there are vestiges of personal tradition which may perhaps permit the supposition of her having really once existed, as a very lovely, witty, proud, and 'fanciful' girl. She afterwards becomes the Christian type of the Bride, in the 'Song of Solomon,' involved with

an ideal of all that is purest in the life of a nun, and brightest in the death of a martyr. It is scarcely possible to overrate the influence of the conceptions formed of her, in ennobling the sentiments of Christian women of the higher orders;—to their practical common sense, as the mistresses of a household or a nation, her example may have been less conducive.

97. III. St. Barbara, also an Egyptian, and St. Catharine's contemporary, though the most practical of the mythic saints, is also, after St. Sophia, the least corporeal: she vanishes far away into the 'Inclusa Danae,' and her "Turris aenea" becomes a myth of Christian safety, of which the Scriptural significance may be enough felt by merely looking out the texts under the word "Tower," in your concordance; and whose effectual power, in the fortitudes alike of matter and spirit, was in all probability made impressive enough to all Christendom, both by the fortifications and persecutions of Diocletian. I have endeavored to mark her general relations to St. Sophia in the little imaginary dialogue between them, given in the eighth lecture of the 'Ethics of the Dust.'

Afterwards, as Gothic architecture becomes dominant, and at last beyond question the most wonderful of all temple-building, St. Barbara's Tower is, of course, its perfected symbol and utmost achievement; and whether in the coronets of countless battlements worn on the brows of the noblest cities, or in the Lombard bell-tower on the mountains, and the English spire on Sarum plain, the geometric majesty of the Egyptian maid became glorious in harmony of defense, and sacred with precision of symbol.

As the buildings which showed her utmost skill were chiefly exposed to lightning, she is invoked in defense from it; and our petition in the Litany, against sudden death, was written originally to her. The blasphemous corruptions of her into a patroness of cannon and gunpowder, are among the most ludicrous, (because precisely contrary to the original tradition,) as well as the most deadly, insolences and stupidities of Renaissance Art.

98. IV. St. Margaret of Antioch was a shepherdess; the St. Geneviève of the East; the type of feminine gentleness and simplicity. Traditions of the resurrection of Alcestis perhaps mingle in those of her contest with the dragon; but at all events, she differs from the other three great mythic saints, in expressing the soul's victory over temptation or affliction, by Christ's miraculous help, and without any special power of its own. She is the saint of the meek and of the poor; her virtue and her victory are those of all gracious and lowly womanhood; and her memory is consecrated among the gentle households of Europe; no other name, except those of Jeanne and Jeanie, seems so gifted with a baptismal fairy power of giving grace and peace.

I must be forgiven for thinking, even on this canonical ground, not only of Jeanie Deans, and Margaret of Brankesome; but of Meg—Merrilies. My readers will, I fear, choose rather to think of the more doubtful victory over the Dragon, won by the great Margaret of German literature.

99. V. With much more clearness and historic comfort we may approach the shrine of St. Cecilia; and even on the most prosaic and realistic minds—such as my own—a visit to her house in Rome has a comforting and establishing effect, which reminds one of the carter in 'Harry and Lucy,' who is convinced of the truth of a plaustral catastrophe at first incredible to him, as soon as he hears the name of the hill on which it happened. The ruling conception of her is deepened gradually by the enlarged study of Religious music; and is at its best and highest in the thirteenth century, when she rather resists than complies with the already tempting and distracting powers of sound; and we are told that "*cantantibus organis, Cecilia virgo in corde suo soli Domino decantabat, dicens, 'Fiat, Domine, cor meum et corpus meum immaculatum, ut non confundar.'*"

("While the instruments played, Cecilia the virgin sang in her heart only to the Lord, saying, Oh Lord, be my heart and body made stainless, that I be not confounded.")

This sentence occurs in my great Service-book of the con-

vent of Beau-pré, written in 1290, and it is illustrated with a miniature of Cecilia sitting silent at a banquet, where all manner of musicians are playing. I need not point out to you how the law, not of sacred music only, so called, but of *all* music, is determined by this sentence; which means in effect that unless music exalt and purify, it is not under St. Cecilia's ordinance, and it is not, virtually, music at all.

Her confessed power at last expires amidst a hubbub of odes and sonatas; and I suppose her presence at a Morning Popular is as little anticipated as desired. Unconfessed, she is of all the mythic saints for ever the greatest; and the child in its nurse's arms, and every tender and gentle spirit which resolves to purify in itself,—as the eye for seeing, so the ear for hearing,—may still, whether behind the Temple veil,* or at the fireside, and by the wayside, hear Cecilia sing.

* “ But, standing in the lowest place,
And mingled with the work-day crowd,
A poor man looks, with lifted face,
And hears the Angels cry aloud.

“ He seeks not how each instant flies,
One moment is Eternity ;
His spirit with the Angels cries
To Thee, to Thee, continually.

“ What if, Isaiah-like, he know
His heart be weak, his lips unclean,
His nature vile, his office low,
His dwelling and his people mean ?

“ To such the Angels spake of old—
To such of yore, the glory came ;
These altar fires can ne'er grow cold :
Then be it his, that cleansing flame.”

These verses, part of a very lovely poem, “To Thee all Angels cry aloud,” in the ‘Monthly Packet’ for September, 1873, are only signed ‘Veritas.’ The volume for that year (the 16th) is well worth getting, for the sake of the admirable papers in it by Miss Sewell, on questions of the day; by Miss A. C. Owen, on Christian Art; and the unsigned Cameos from English History.

100. It would delay me too long just now to trace in specialty farther the functions of the mythic, or, as in another sense they may be truly called, the universal, Saints: the next greatest of them, St. Ursula, is essentially British,—and you will find enough about her in ‘Fors Clavigera’; the others, I will simply give you in entirely authoritative order from the St. Louis’ Psalter, as he read and thought of them.

The proper Service-book of the thirteenth century consists first of the pure Psalter; then of certain essential passages of the Old Testament—invariably the Song of Miriam at the Red Sea and the last song of Moses;—ordinarily also the 12th of Isaiah and the prayer of Habakkuk; while St. Louis’ Psalter has also the prayer of Hannah, and that of Hezekiah (Isaiah xxxviii. 10–20); the Song of the Three Children; the Benedictus, the Magnificat, and the Nunc Dimittis. Then follows the Athanasian Creed; and then, as in all Psalters after their chosen Scripture passages, the collects to the Virgin, the Te Deum, and Service to Christ, beginning with the Psalm ‘The Lord reigneth’; and then the collects to the greater individual saints, closing with the Litany, or constant prayer for mercy to Christ, and all saints; of whom the order is,—Archangels, Patriarchs, Apostles, Disciples, Innocents, Martyrs, Confessors, Monks, and Virgins. Of women the Magdalen *always* leads; St. Mary of Egypt usually follows, but *may* be the last. Then the order varies in every place, and prayer-book, no recognizable supremacy being traceable; except in relation to the place, or person, for whom the book was written. In St. Louis’, St. Geneviève (the last saint to whom he prayed on his death-bed) follows the two Marias; then come—memorable for you best, as easiest, in this six-foil group,—Saints Catharine, Margaret, and Scolastica, Agatha, Cecilia, and Agnes; and then ten more, whom you may learn or not as you like: I note them now only for future reference,—more lively and easy for your learning,—by their French names,

Felicité,

Colombe,

Christine,

—

Aurée, Honorine,

—

Radegonde,

Praxède,

Euphémie,

—

Bathilde, Eugénie.

101. Such was the system of Theology into which the Imaginative Religion of Europe was crystallized, by the growth of its own best faculties, and the influence of all accessible and credible authorities, during the period between the eleventh and fifteenth centuries inclusive. Its spiritual power is completely represented by the angelic and apostolic dynasties, and the women-saints in Paradise; for of the men-saints, beneath the apostles and prophets, none but St. Christopher, St. Nicholas, St. Anthony, St. James, and St. George, attained anything like the influence of Catharine or Cecilia; for the very curious reason, that the men-saints were much more true, real, and numerous. St. Martin was revered all over Europe, but definitely, as a man, and the Bishop of Tours. So St. Ambrose at Milan, and St. Gregory at Rome, and hundreds of good men more, all over the world; while the really good women remained, though not rare, inconspicuous. The virtues of French Clotilde, and Swiss Berthe, were painfully borne down in the balance of visible

judgment, by the guilt of the Gonerils, Regans, and Lady Macbeths, whose spectral procession closes only with the figure of Eleanor in Woodstock maze; and in dearth of nearer objects, the daily brighter powers of fancy dwelt with more concentrated devotion on the stainless ideals of the earlier maid-martyrs. And observe, even the loftier fame of the men-saints above named, as compared with the rest, depends on precisely the same character of indefinite personality; and on the representation, by each of them, of a moral idea which may be embodied and painted in a miraculous legend; credible, as history, even then, only to the vulgar; but powerful over them, nevertheless, exactly in proportion to the degree in which it can be pictured and fancied as a living creature. Consider even yet in these days of mechanism, how the dullest John Bull cannot with perfect complacency adore *himself*, except under the figure of Britannia or the British Lion; and how the existence of the popular jest-book, which might have seemed secure in its necessity to our weekly recreation, is yet virtually centered on the imaginary animation of a puppet, and the imaginary elevation to reason of a dog. But in the Middle Ages, this action of the Fancy, now distorted and despised, was the happy and sacred tutress of every faculty of the body and soul; and the works and thoughts of art, the joys and toils of men, rose and flowed on in the bright air of it, with the aspiration of a flame, and the beneficence of a fountain.

102. And now, in the rest of my lecture, I had intended to give you a broad summary of the rise and fall of English art, born under this code of theology, and this enthusiasm of duty;—of its rise, from the rude vaults of Westminster, to the finished majesty of Wells;—and of its fall, from that brief hour of the thirteenth century, through the wars of the Bolingbroke, and the pride of the Tudor, and the lust of the Stewart, to expire under the mocking snarl and ruthless blow of the Puritan. But you know that I have always, in my most serious work, allowed myself to be influenced by those Chances, as they are now called,—but to my own

feeling and belief, guidances, and even, if rightly understood, commands,—which, as far as I have read history, the best and sincerest men think providential. Had this lecture been on common principles of art, I should have finished it as I intended, without fear of its being the worse for my consistency. But it deals, on the contrary, with a subject, respecting which every sentence I write, or speak, is of importance in its issue; and I allowed, as you heard, the momentary observation of a friend, to give an entirely new cast to the close of my last lecture. Much more, I feel it incumbent upon me in this one, to take advantage of the most opportune help, though in an unexpected direction, given me by my constant tutor, Professor Westwood. I went to dine with him, a day or two ago, mainly—being neither of us, I am thankful to say, blue-ribboned—to drink his health on his recovery from his recent accident. Whereupon he gave me a feast of good talk, old wine, and purple manuscripts. And having had as much of all as I could well carry, just as it came to the good-night, out he brings, for a finish, this leaf of manuscript in my hand, which he has lent me to show you,—a leaf of the Bible of Charles the Bald!

A leaf of it, at least, as far as you or I could tell, for Professor Westwood's copy is just as good, in all the parts finished, as the original; and, for all practical purpose, I show you here in my hand a leaf of the Bible which your own King Alfred saw with his own bright eyes, and from which he learned his child-faith in the days of dawning thought!

103. There are few English children who do not know the story of Alfred, the king, letting the cakes burn, and being chidden by his peasant hostess. How few English children—nay, how few perhaps of their educated, not to say learned, elders—reflect upon, if even they know, the far different scenes through which he had passed when a child!

Concerning his father, his mother, and his own childhood,

suppose you were to teach your children first these following main facts, before you come to the toasting of the muffin?

His father, educated by Helmstan, Bishop of Winchester, had been offered the throne of the great Saxon kingdom of Mercia in his early youth; had refused it, and entered, as a novice under St. Swithin, the monastery at Winchester. From St. Swithin, he received the monastic habit, and was appointed by Bishop Helmstan one of his sub-deacons!

“The quiet seclusion which Ethelwulph’s slow * capacity and meek temper coveted” was not permitted to him by fate. The death of his elder brother left him the only living representative of the line of the West Saxon princes. His accession to the throne became the desire of the people. He obtained a dispensation from the Pope to leave the cloister; assumed the crown of Egbert; and retained Egbert’s prime minister, Alstan, Bishop of Sherborne, who was the Minister in peace and war, the Treasurer, and the Counselor, of the kings of England, over a space, from first to last, of fifty years.

Alfred’s mother, Osburga, must have been married for love. She was the daughter of Oslac, the king’s cup-bearer. Extolled for her piety and understanding, she bore the king four sons; dying before the last, Alfred, was five years old, but leaving him St. Swithin for his tutor. How little do any of us think, in idle talk of rain or no rain on St. Swithin’s day, that we speak of the man whom Alfred’s father obeyed as a monk, and whom his mother chose for his guardian!

104. Alfred, both to father and mother, was the best beloved of their children. On his mother’s death, his father sent him, being then five years old, with a great retinue through France and across the Alps, to Rome; and there the Pope anointed him King, (heir-apparent to the English throne,) at the request of his father.

Think of it, you travelers through the Alps by tunnels, that

* Turner, quoting William of Malmesbury, “Crassioris et hebetis ingenii,”—meaning that he had neither ardor for war, nor ambition for kingdom.

you may go to balls at Rome, or hells at Monaco. Here is another manner of journey, another goal for it, appointed for your little king. At twelve, he was already the best hunter among the Saxon youths. Be sure he could sit his horse at five. Fancy the child, with his keen genius, and holy heart, riding with his Saxon chiefs beside him, by the Alpine flowers under Velan or Sempione, and down among the olives to Pavia, to Perugia, to Rome; there, like the little fabled Virgin, ascending the temple steps, and consecrated to be King of England by the great Leo, Leo of the Leonine city, the savior of Rome from the Saracen.

105. Two years afterwards, he rode again to Rome beside his father; the West Saxon king bringing presents to the Pope, a crown of pure gold weighing four pounds, a sword adorned with pure gold, two golden images,* four Saxon silver dishes; and giving a gift of gold to all the Roman clergy and nobles,† and of silver to the people.

No idle sacrifices or symbols, these gifts of courtesy! The Saxon King rebuilt on the highest hill that is bathed by Tiber, the Saxon street and school, the Borgo,‡ of whose miraculously arrested burning, Raphael's fresco preserves the story to this day. And further he obtained from Leo the liberty of all Saxon men from bonds in penance;—a first phase this of Magna Charta, obtained more honorably from

* Turner, Book IV.,—not a vestige of hint from the stupid Englishman, what the Pope wanted with crown, sword, or image! My own guess would be, that it meant an offering of the entire household strength, in war and peace, of the Saxon nation,—their crown, their sword, their household gods, Irminsul and Irminsula, their feasting, and their robes.

† Again, what does this mean? Gifts of honor to the Pope's immediate attendants—silver to all Rome? Does the modern reader think this is buying little Alfred's consecration too dear, or that Leo is selling the Holy Ghost?

‡ "Quæ in eorum lingua Burgus dicitur,—the place where it was situated was called the Saxon street, Saxonum vicum" (Anastasius, quoted by Turner). There seems to me some evidence in the scattered passages I have not time to collate, that at this time the Saxon Burg, or tower, of a village, included the idea of its school.

a more honorable person, than that document, by which Englishmen of this day suppose they live, move, and have being.

106. How far into Alfred's soul, at seven years old, sank any true image of what Rome was, and had been; of what her Lion Lord was, who had saved her from the Saracen, and her Lion Lord had been, who had saved her from the Hun; and what this Spiritual Dominion was, and was to be, which could make and unmake kings, and save nations, and put armies to flight; I leave those to say, who have learned to reverence childhood. This, at least, is sure, that the days of Alfred were bound each to each, not only by their natural piety, but by the actual presence and appeal to his heart, of all that was then in the world most noble, beautiful and strong against Death.

In this living Book of God he had learned to read, thus early; and with perhaps nobler ambition than of getting the prize of a gilded psalm-book at his mother's knee, as you are commonly told of him. What sort of psalm-book it was, however, you may see from this leaf in my hand. For, as his father and he returned from Rome that year, they stayed again at the Court of Charlemagne's grandson, whose daughter, the Princess Judith, Ethelwulph was wooing for Queen of England, (not queen-consort, merely, but crowned queen, of authority equal to his own.) From whom Alfred was like enough to have had a reading lesson or two out of her father's Bible; and like enough, the little prince, to have stayed her hand at this bright leaf of it, the Lion-leaf, bearing the symbol of the Lion of the tribe of Judah.

107. You cannot, of course, see anything but the glittering from where you sit; nor even if you afterwards look at it near, will you find a figure the least admirable or impressive to you. It is not like Landseer's Lions in Trafalgar Square; nor like Tenniel's in 'Punch'; still less like the real ones in Regent's Park. Neither do I show it you as admirable in any respect of art, other than that of skillfulest illumination. I show it you, as the most interesting Gothic type of the imagination of Lion; which, after the Roman Eagle, pos-

sessed the minds of all European warriors; until, as they themselves grew selfish and cruel, the symbols which at first meant heaven-sent victory, or the strength and presence of some Divine spirit, became to them only the signs of their own pride or rage: the victor raven of Corvus sinks into the shamed falcon of Marmion, and the lion-heartedness which gave the glory and the peace of the gods to Leonidas, casts the glory and the might of kingship to the dust before Chalus.*

That death, 6th April, 1199, ended the advance of England begun by Alfred, under the pure law of Religious Imagination. She began, already, in the thirteenth century, to be decoratively, instead of vitally, religious. The history of the Religious Imagination expressed between Alfred's time and that of Cœur de Lion, in this symbol of the Lion only, has material in it rather for all my seven lectures than for the closing section of one; but I must briefly specify to you the main sections of it. I will keep clear of my favorite number seven, and ask you to recollect the meaning of only Five, Mythic Lions.

108. First of all, in Greek art, remember to keep yourselves clear about the difference between the Lion and the Gorgon.

The Gorgon is the power of evil in heaven, conquered by Athena, and thenceforward becoming her ægis, when she is herself the inflicter of evil. Her helmet is then the helmet of Orcus.

But the Lion is the power of death on earth, conquered by Heracles, and becoming thenceforward both his helmet and ægis. All ordinary architectural lion sculpture is derived from the Heracleian.

Then the Christian Lions are, first, the Lion of the Tribe of Judah—Christ Himself as Captain and Judge: "He shall rule the nations with a rod of iron," (the opposite

* 'Fors Clavigera,' March, 1871. Yet read the preceding pages, and learn the truth of the lion heart, while you mourn its pride. Note especially his absolute law against usury.

power of His adversary, is rarely intended in sculpture unless in association with the serpent—"inculcabis supra leonem et aspidem"); secondly, the Lion of St. Mark, the power of the Gospel going out to conquest; thirdly, the Lion of St. Jerome, the wrath of the brute creation changed into love by the kindness of man; and, fourthly, the Lion of the Zodiac, which is the Lion of Egypt and of the Lombardic pillar-supports in Italy; these four, if you remember, with the Nemean Greek one, five altogether, will give you, broadly, interpretation of nearly all Lion symbolism in great art. How they degenerate into the British door-knocker, I leave you to determine for yourselves, with such assistances as I may be able to suggest to you in my next lecture;* but, as the grotesqueness of human history plans it, there is actually a connection between that last degradation of the Leonine symbol, and its first and noblest significance.

109. You see there are letters round this golden Lion of Alfred's spelling-book, which his princess friend was likely enough to spell for him. They are two Latin hexameters:—

Hic Leo, surgendo, portas confregit Averni

. Qui numquam dormit, nusquam dormitat, in ævum.

(This Lion, rising, burst the gates of Death:

This, who sleeps not, nor shall sleep, for ever.)

Now here is the Christian change of the Heracleian conquest of Death into Christ's Resurrection. Samson's bearing away the gates of Gaza is another like symbol, and to the mind of Alfred, taught, whether by the Pope Leo for his schoolmaster, or by the great-granddaughter of Charlemagne for his schoolmistress, it represented, as it did to all the intelligence of Christendom, Christ is His own first and last, Alpha and Omega, description of Himself,—

"I am He that liveth and was dead, and behold I am alive for evermore, and *have the keys* of Hell and of Death." And in His servant St. John's description of Him—

* [Delivered November 15 and 17, 1884, but not published. Ed. 1898.]

“Who is the Faithful Witness and the First-begotten of the dead, and the Prince of the kings of the earth.”

110. All this assuredly, so far as the young child, consecrated like David, the youngest of his brethren, conceived his own new life in Earth and Heaven,—he understood already in the Lion symbol. But of all this I had no thought * when I chose the prayer of Alfred as the type of the Religion of his era, in its dwelling, not on the deliverance from the punishment of sin, but from the poisonous sleep and death of it. Will you ever learn that prayer again,—youths who are to be priests, and knights, and kings of England, in these the latter days? when the gospel of Eternal-Death is preached here in Oxford to you for the Pride of Truth? and “the mountain of the Lord’s House” has become a Golgotha, and the “new song before the throne” sunk into the rolling thunder of the death rattle of the Nations, crying, “O Christ, where is Thy Victory!”

* The reference to the Bible of Charles le Chauve was added to my second lecture (§ 53), in correcting the press, and mistakenly put into the text instead of the notes.

NOTES.

1. *The Five Christmas Days.* (These were drawn out on a large and conspicuous diagram.)

These days, as it happens, sum up the History of their Five Centuries.

Christmas Day, 496. Clovis baptized.

“ “ 800. Charlemagne crowned.

“ “ 1041. Vow of the Count of Aversa (§ 77).

“ “ 1066. The Conqueror crowned.

“ “ 1130. Roger II. crowned King of the Two Sicilies.

2. For conclusion of the whole matter two pictures were shown and commented on—the two most perfect pictures in the world.

(1) A small piece from Tintoret's *Paradiso* in the Ducal Palace, representing the group of St. Ambrose, St. Jerome, St. Gregory, St. Augustine, and behind St. Augustine his mother watching him, her chief joy even in Paradise.

(2) The Arundel Society's reproduction of the Altar-piece by Giorgione in his native hamlet of Castel Franco. The Arundel Society has done more for us than we have any notion of.

DEUCALION.

COLLECTED STUDIES

OF THE

LAPSE OF WAVES, AND LIFE OF STONES.

VOLS. I. AND II.

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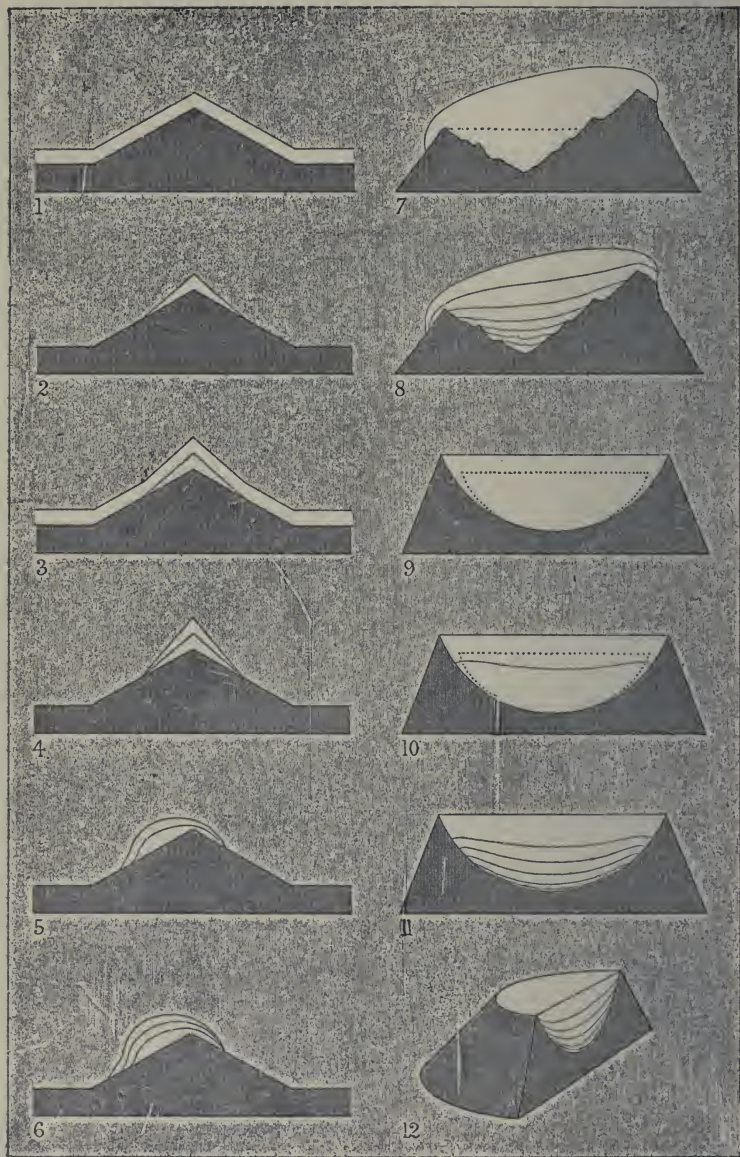


Plate 1.

First conditions of accumulation and fusion
in motionless snow

DEUCALION.

INTRODUCTION.

BRANTWOOD, 13th July, 1875.

I HAVE been glancing lately at many biographies, and have been much struck by the number of deaths which occur between the ages of fifty and sixty, (and, for the most part, in the earlier half of the decade,) in cases where the brain has been much used emotionally: or perhaps it would be more accurate to say, where the heart, and the faculties of perception connected with it, have stimulated the brain-action. Supposing such excitement to be temperate, equable, and joyful, I have no doubt the tendency of it would be to prolong, rather than depress, the vital energies. But the emotions of indignation, grief, controversial anxiety and vanity, or hopeless, and therefore uncontenting, scorn, are all of them as deadly to the body as poisonous air or polluted water; and when I reflect how much of the active part of my past life has been spent in these states,—and that what may remain to me of life can never more be in any other,—I begin to ask myself, with somewhat pressing arithmetic, how much time is likely to be left me, at the age of fifty-six, to complete the various designs for which, until past fifty, I was merely collecting materials.

Of these materials, I have now enough by me for a most interesting (in my own opinion) history of fifteenth-century Florentine art, in six octavo volumes; an analysis of the Attic art of the fifth century B.C., in three volumes; an exhaustive history of northern thirteenth-century art, in ten volumes; a life of Turner, with analysis of modern landscape

art, in four volumes; a life of Walter Scott, with analysis of modern epic art, in seven volumes; a life of Xenophon, with analysis of the general principles of Education, in ten volumes; a commentary on Hesiod, with final analysis of the principles of Political Economy, in nine volumes; and a general description of the geology and botany of the Alps, in twenty-four volumes.

Of these works, though all carefully projected, and some already in progress,—yet, allowing for the duties of my Professorship, possibly continuing at Oxford, and for the increasing correspondence relating to *Fors Clavigera*,—it does not seem to me, even in my most sanguine moments, now probable that I shall live to effect such conclusion as would be satisfactory to me; and I think it will therefore be only prudent, however humiliating, to throw together at once, out of the heap of loose stones collected for this many-towered city which I am not able to finish, such fragments of good marble as may perchance be useful to future builders; and to clear away, out of sight, the lime and other rubbish which I meant for mortar.

And because it is needful, for my health's sake, henceforward to do as far as possible what I find pleasure, or at least tranquillity, in doing, I am minded to collect first what I have done in geology and botany; for indeed, had it not been for grave mischance in earlier life, (partly consisting in the unlucky gift, from an affectionate friend, of Rogers' poems, as related in *Fors Clavigera* for August of this year,) my natural disposition for these sciences would certainly long ago have made me a leading member of the British Association for the Advancement of Science; or—who knows?—even raised me to the position which it was always the summit of my earthly ambition to attain, that of President of the Geological Society. For, indeed, I began when I was only twelve years old, a 'Mineralogical Dictionary,' intended to supersede everything done by Werner and Mohs, (and written in a shorthand composed of crystallographic signs now entirely unintelligible to me,)—and year by year have endeav-

ored, until very lately, to keep abreast with the rising tide of geological knowledge; sometimes even, I believe, pushing my way into little creeks in advance of the general wave. I am not careful to assert for myself the petty advantage of priority in discovering what, some day or other, somebody must certainly have discovered. But I think it due to my readers, that they may receive what real good there may be in these studies with franker confidence, to tell them that the first sun-portrait ever taken of the Matterhorn, (and as far as I know of any Swiss mountain whatever,) was taken by me in the year 1849; that the outlines, (drawn by measurement of angle,) given in 'Modern Painters,' of the Cervin, and aiguilles of Chamouni, are at this day demonstrable by photography as the trustworthiest then in existence; that I was the first to point out, in my lecture given in the Royal Institution,* the real relation of the vertical cleavages to the stratification, in the limestone ranges belonging to the chalk formation in Savoy; and that my analysis of the structure of agates, ('Geological Magazine,') remains, even to the present day, the only one which has the slightest claim to accuracy of distinction, or completeness of arrangement. I propose therefore, if time be spared me, to collect, of these detached studies, or lectures, what seem to me deserving of preservation; together with the more carefully written chapters on geology and botany in the latter volumes of 'Modern Painters;' adding the memoranda I have still by me in manuscript, and such further illustrations as may occur to me on revision. Which fragmentary work,—trusting that among the flowers or stones let fall by other hands it may yet find service and life,—I have ventured to dedicate to Proserpina and Deucalion.

Why not rather to Eve, or at least to one of the wives of Lamech, and to Noah? asks, perhaps, the pious modern reader.

Because I think it well that the young student should

* Reported in the 'Journal de Genève,' date ascertainable, but of no consequence.

first learn the myths of the betrayal and redemption, as the Spirit which moved on the face of the wide first waters, taught them to the heathen world. And because, in this power, Proserpine and Deucalion are at least as true as Eve or Noah; and all four together incomparably truer than the Darwinian Theory. And in general, the reader may take it for a first principle, both in science and literature, that the feeblest myth is better than the strongest theory: the one recording a natural impression on the imaginations of great men, and of unpretending multitudes; the other, an unnatural exertion of the wits of little men, and half-wits of impertinent multitudes.

It chanced, this morning, as I sat down to finish my preface, that I had, for my introductory reading, the fifth chapter of the second book of Esdras; in which, though often read carefully before, I had never enough noticed the curious verse, "Blood shall drop out of wood, and the stone shall give his voice, and the people shall be troubled." Of which verse, so far as I can gather the meaning from the context, and from the rest of the chapter, the intent is, that in the time spoken of by the prophet, which, if not our own, is one exactly corresponding to it, the deadness of men to all noble things shall be so great, that the sap of trees shall be more truly blood, in God's sight, than their hearts' blood; and the silence of men, in praise of all noble things, so great, that the stones shall cry out, in God's hearing, instead of their tongues; and the rattling of the shingle on the beach, and the roar of the rocks driven by the torrent, be truer *Te Deum* than the thunder of all their choirs. The writings of modern scientific prophets teach us to anticipate a day when even these lower voices shall be also silent; and leaf cease to wave, and stream to murmur, in the grasp of an eternal cold. But it may be, that rather out of the mouths of babes and sucklings a better peace may be promised to the redeemed Jerusalem; and the strewn branches, and low-laid stones, remain at rest at the gates of the city, built in unity with herself, and saying with her human voice, "My King cometh."

CHAPTER I.

THE ALPS AND JURA.

(Part of a Lecture given in the Museum of Oxford, in October, 1874.)

1. IT is often now a question with me whether the persons who appointed me to this Professorship have been disappointed, or pleased, by the little pains I have hitherto taken to advance the study of landscape. That it is my own favorite branch of painting seemed to me a reason for caution in pressing it on your attention; and the range of art-practice which I have hitherto indicated for you, seems to me more properly connected with the higher branches of philosophical inquiry native to the University. But, as the second term of my Professorship will expire next year, and as I intend what remains of it to be chiefly employed in giving some account of the art of Florence and Umbria, it seemed to me proper, before entering on that higher subject, to set before you some of the facts respecting the great elements of landscape, which I first stated thirty years ago; arranging them now in such form as my farther study enables me to give them. I shall not, indeed, be able to do this in a course of spoken lectures; nor do I wish to do so. Much of what I desire that you should notice is already stated, as well as I can do it, in 'Modern Painters;' and it would be waste of time to recast it in the form of address. But I should not feel justified in merely reading passages of my former writings to you from this chair; and will only ask your audience, here, of some additional matters, as, for instance, to-day, of some observations I have been making recently, in order to complete the account given in 'Modern Painters,' of the structure and aspect of the higher Alps.

2. Not that their structure—(let me repeat, once more, what I am well assured you will, in spite of my frequent assertion, find difficult to believe,)—not that their structure is any business of yours or mine, as students of practical art. All investigations of internal anatomy, whether in plants, rocks, or animals, are hurtful to the finest sensibilities and instincts of form. But very few of us have any such sensibilities to be injured; and that we may distinguish the excellent art which they have produced, we must, by duller processes, become cognizant of the facts. The Torso of the Vatican was not wrought by help from dissection; yet all its supreme qualities could only be explained by an anatomical master. And these drawings of the Alps by Turner are in landscape, what the Elgin marbles or the Torso are in sculpture. There is nothing else approaching them, or of their order. Turner made them before geology existed; but it is only by help of geology that I can prove their power.

3. I chanced, the other day, to take up a number of the 'Alpine Journal' (May, 1871,) in which there was a review by Mr. Leslie Stephen, of Mr. Whymper's 'Scrambles among the Alps,' in which it is said that "if the Alpine Club has done nothing else, it has taught us for the first time really to see the mountains." I have not the least idea whom Mr. Stephen means by 'us'; but I can assure him that mountains had been seen by several people before the nineteenth century; that both Hesiod and Pindar occasionally had eyes for Parnassus, Virgil for the Apennines, and Scott for the Grampians; and without speaking of Turner, or of any other accomplished artist, here is a little bit of old-fashioned Swiss drawing of the two Mythens, above the central town of Switzerland,* showing a degree of affection, intelligence, and tender observation, compared to which our modern enthusiasm is, at best, childish; and commonly also as shallow as it is vulgar.

4. Believe me, gentlemen, your power of seeing mountains cannot be developed either by your vanity, your curiosity,

* In the Educational Series of my Oxford Schools.

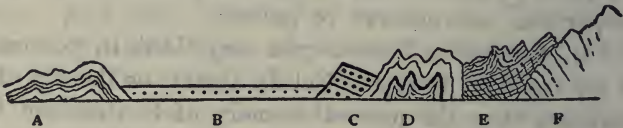
or your love of muscular exercise. It depends on the cultivation of the instrument of sight itself, and of the soul that uses it. As soon as you can see mountains rightly, you will see hills also, and valleys, with considerable interest; and a great many other things in Switzerland with which you are at present but poorly acquainted. The bluntness of your present capacity of ocular sensation is too surely proved by your being unable to enjoy any of the sweet lowland country, which is incomparably more beautiful than the summits of the central range, and which is meant to detain you, also, by displaying—if you have patience to observe them—the loveliest aspects of that central range itself, in its real majesty of proportion, and mystery of power.

5. For, gentlemen, little as you may think it, you can no more see the Alps from the Col du Géant, or the top of the Matterhorn, than the pastoral scenery of Switzerland from the railroad carriage. If you want to see the skeletons of the Alps, you may go to Zermatt or Chamouni; but if you want to see the body and soul of the Alps, you must stay awhile among the Jura, and in the Bernese plain. And, in general, the way to see mountains is to take a knapsack and a walking-stick; leave alpenstocks to be flourished in each other's faces, and between one another's legs, by Cook's tourists; and try to find some companionship in yourself with yourself; and not to be dependent for your good cheer either on the gossip of the table-d'hôte, or the hail-fellow and well met, hearty though it be, of even the pleasantest of celebrated guides.

6. Whether, however, you think it necessary or not, for true sight of the Alps, to stay awhile among the Jura or in the Bernese fields, very certainly, for understanding, or questioning of the Alps, it is wholly necessary to do so. If you look back to the lecture, which I gave as the fourth of my inaugural series, on the Relation of Art to Use, you will see it stated, as a grave matter of reproach to the modern traveler, that, crossing the great plain of Switzerland nearly every summer, he never thinks of inquiring why it is a plain, and why the mountains to the south of it are mountains.

7. For solution of which, as it appears to me, not unnatural inquiry, all of you, who have taken any interest in geology whatever, must recognize the importance of studying the calcareous ranges which form the outlying steps of the Alps on the north; and which, in the lecture just referred to, I requested you to examine for their crag scenery, markedly developed in the Stockhorn, Pilate, and Sentis of Appenzell. The arrangements of strata in that great calcareous belt give the main clue to the mode of elevation of the central chain, the relations of the rocks over the entire breadth of North Switzerland being, roughly, as in this first section:

Fig. 1.



- A. Jura limestones, moderately undulating in the successive chains of Jura.
- B. Sandstones of the great Swiss plain.
- C. Pebble breccias of the first ranges of Alpine hills.
- D. Chalk formations violently contorted, forming the rock scenery of which I have just spoken.
- E. Metamorphic rocks lifted by the central Alps.
- F. Central gneissic or granitic mass, narrow in Mont Blanc, but of enormous extent southwards from St. Gothard.

8. Now you may, for first grasp of our subject, imagine these several formations all fluted longitudinally, like a Gothic molding, thus forming a series of ridges and valleys parallel to the Alps;—such as the valley of Chamouni, the Simmenthal, and the great vale containing the lakes of Thun and Brientz; to which longitudinal valleys we now obtain access through gorges or defiles, for the most part cut across the formations, and giving geological sections all the way from the centers of the Alps to the plain.

9. Get this first notion very simply and massively set in

your thoughts. Longitudinal valleys, parallel with the beds; more or less extended and soft in contour, and often occupied by lakes. Cross defiles like that of Lauterbrunnen, the Via Mala, and the defile of Gondo; cut down across the beds, and traversed by torrents, but rarely occupied by lakes. The bay of Uri is the only perfect instance in Switzerland of a portion of lake in a diametrically cross valley; the crossing arms of the lake Lucerne mark the exactly rectangular schism of the forces; the main direction being that of the lakes of Kussnacht and Alpnacht, carried on through those of Sarren and Lungern, and across the low intervening ridge of the Brunig, joining the depressions of Brienz and Thun; of which last lake the lower reach, however, is obliquely transverse. Forty miles of the Lago Maggiore, or, including the portion of lake now filled by delta, fifty, from Baveno to Bellinzona, are in the longitudinal valley which continues to the St. Bernardino: and the entire length of the lake of Como is the continuation of the great lateral Valtelline.

10. Now such structure of parallel valley and cross defile would be intelligible enough, if it were confined to the lateral stratified ranges. But, as you are well aware, the two most notable longitudinal valleys in the Alps are cut right along the heart of their central gneissic chain; how much by dividing forces in the rocks themselves, and how much by the sources of the two great rivers of France and Germany, there will yet be debate among geologists for many a day to come. For us, let the facts at least be clear; the questions definite; but all debate declined.

11. All lakes among the Alps, except the little green pool of Lungern, and a few small tarns on the cols, are quite at the bottom of the hills. We are so accustomed to this condition, that we never think of it as singular. But in its unexceptional character, it is extremely singular. How comes it to pass, think you, that through all that wildness of mountain—raised, in the main mass of it, some six thousand feet above the sea, so that there is no col lower,—there is not a single hollow shut in so as to stay the streams of it; that no

valley is ever barred across by a ridge which can keep so much as ten feet of water calm above it,—that every such ridge that once existed has been cut through, so as to let the stream escape?

I put this question in passing; we will return to it: let me first ask you to examine the broad relations of the beds that are cut through. My typical section, Fig. 1, is stringently simple; it must be much enriched and modified to fit any locality; but in the main conditions it is applicable to the entire north side of the Alps, from Annecy to St. Gall.

12. You have first—(I read from left to right, or north to south, being obliged to do so because all Studer's sections are thus taken)—this mass of yellow limestone, called of the Jura, from its development in that chain; but forming an immense tract of the surface of France also; and, as you well know, this our city of Oxford stands on one of its softer beds, and is chiefly built of it. We may, I think, without entering any forbidden region of theory, assume that this Jura limestone extends under the plain of Switzerland, to reappear where we again find it on the flanks of the great range; where on the top of it the beds drawn with fine lines in my section correspond generally to the date of our English chalk, though they are far from white in the Alps. Curiously adjusted to the chalk beds, rather than superimposed, we have these notable masses of pebble breccia, which bound the sandstones of the great Swiss plain.

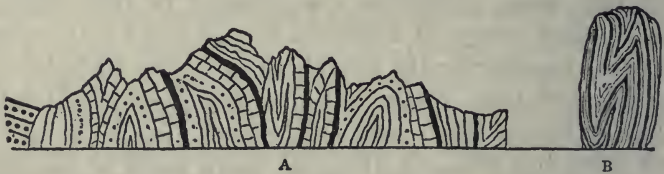
13. I have drawn that portion of the section a little more boldly in projection, to remind you of the great Rigi promontory; and of the main direction of the slope of these beds, with their backs to the Alps, and their escarpments to the plain. Both these points are of curious importance. Have you ever considered the reason of the fall of the Rossberg, the most impressive physical catastrophe that has chanced in Europe in modern times? Few mountains in Switzerland looked safer. It was of inconsiderable height, of very moderate steepness; but its beds lay perfectly straight, and that over so large a space, that when the clay between

two of them got softened by rain, one slipped off the other. Now this mathematical straightness is characteristic of these pebble beds,—not universal in them, but characteristic of them, and of them only. The limestones underneath are usually, as you see in this section, violently contorted; if not contorted, they are at least so irregular in the bedding that you can't in general find a surface of a furlong square which will not either by its depression or projection, catch and notch into the one above it, so as to prevent its sliding. Also the limestones are continually torn, or split, across the beds. But the breccias, though in many places they suffer decomposition, are curiously free from fissures and rents. The hillside remains unshattered unless it comes down in a mass. But their straight bedding, as compared with the twisted limestone, is the notablest point in them; and see how very many difficulties are gathered in the difference. The crushed masses of limestone are supposed to have been wrinkled together by the lateral thrust of the emerging protogines; and these pebble beds too have been raised into a gable, or broken into a series of colossal fragments set over each other like tiles, all along the south shore of the Swiss plain, by the same lateral thrust; nay, "though we may leave in doubt," says Studer, "by what cause the folded forms of the Jura may have been pushed back, there yet remains to us, for the explanation of this gabled form of the Nagelfluh, hardly any other choice than to adopt the opinion of a lateral pressure communicated by the Alps to the tertiary bottom. We have often found in the outer limestone chains themselves clear evidence of a pressure going out from the inner Alps; and the pushing of the older over the younger formations along the flank of the limestone hills, leaves hardly any other opinion possible."

14. But if these pebble beds have been heaved up by the same lateral thrust, how is it that a force which can bend limestone like leather, cannot crush, everywhere, these pebbled beds into the least confusion? Consider the scale on which operations are carried on, and the forces of which this

sentence of Studer's so serenely assumes the action. Here, A, Fig. 2, is his section of the High Sentis of Appenzell, of which the height is at least, in the parts thus bent, 6,000 feet. And here, B, Fig. 2, are some sheets of paper, crushed together by my friend Mr. Henry Woodward, from a length of four inches, into what you see; the High Sentis exactly resembles these, and seems to consist of four miles of limestone similarly crushed into one. Seems, I say, remember: I never theorize, I give you the facts only. The beds *do* go up and down like this: that they have been crushed together, it is Mr. Studer who says or supposes; I can't go so far; nevertheless, I admit that he appears to be right, and I believe he is right; only don't be positive about it, and don't debate; but think of it, and examine.

FIG. 2.



15. Suppose, then, you have a bed of rocks, four miles long by a mile thick, to be crushed laterally into the space of a mile. It may be done, supposing the mass not to be reducible in bulk, in two ways: you may either crush it up into folds, as I crush these pieces of cloth; or you may break it into bits, and shuffle them over one another like cards. Now, Mr. Studer, and our geologists in general, believe the first of these operations to have taken place with the limestones, and the second, with the breccias. They are, as I say, very probably right: only just consider what is involved in the notion of shuffling up your breccias like a pack of cards, and folding up your limestones like a length of silk which a dexterous draper's shopman is persuading a young lady to put ten times as much of into her gown as is wanted for it! Think, I say, what is involved in the notion. That you may shuffle your pebble beds, you must have them strong and well

knit. Then what sort of force must you have to break and to heave them? Do but try the force required to break so much as a captain's biscuit by slow push,—it is the illustration I gave long ago in 'Modern Painters,'—and then fancy the results of such fracturing power on a bed of conglomerate two thousand feet thick! And here is indeed a very charming bookbinder's pattern, produced by my friend in crushed paper, and the length of silk produces lovely results in these arrangements à la Paul Veronese. But when you have the cliffs of the Diablerets, or the Dent du Midi of Bex, to deal with; and have to fold *them* up similarly, do you mean to fold your two-thousand-feet-thick Jura limestone in a brittle state, or a ductile one? If brittle, won't it smash? If ductile, won't it squeeze? Yet your whole mountain theory proceeds on the assumption that it has neither broken nor been compressed,—more than the folds of silk or coils of paper.

16. You most of you have been upon the lake of Thun. You have been at least carried up and down it in a steamer; you smoked over it meanwhile, and countenanced the Frenchmen and Germans who were spitting into it. The steamer carried you all the length of it in half an hour; you looked at the Jungfrau and Blumlis Alp, probably, for five minutes, if it was a fine day; then took to your papers, and read the last news of the Tichborne case; then you lounged about,—thought it a nuisance that the steamer couldn't take you up in twenty minutes, instead of half an hour; then you got into a row about your luggage at Neuhaus; and all that you recollect afterwards is that lunch where you met the so-and-sos at Interlaken.

17. Well, we used to do it differently in old times. Look here;—this* is the quay at Neuhaus, with its then traveling arrangements. A flat-bottomed boat, little better than a punt;—a fat Swiss girl with her schatz, or her father, to row it; oars made of a board tied to a pole: and so one paddled along over the clear water, in and out among the

* Turner's first study of the Lake of Thun, in 1803.

bays and villages, for half a day of pleasant life. And one knew something about the lake, ever after, if one had a head with eyes in it.

It is just possible, however, that some of you also who have been learning to see the Alps in your new fashion, may remember that the north side of the Lake of Thun consists, first, next Thun, of a series of low green hills, with brown cliffs here and there among the pines; and that above them, just after passing Oberhofen, rears up suddenly a great precipice, with its flank to the lake, and the winding wall of it prolonged upwards, far to the north, losing itself, if the day is fine, in faint tawny crests of rock among the distant blue; and if stormy, in wreaths of more than commonly torn and fantastic cloud.

18. To form the top of that peak on the north side of the lake of Thun, you have to imagine forces which have taken—say, the whole of the North Foreland, with Dover castle on it, and have folded it upside-down on the top of the parade at Margate,—then swept up Whitstable oyster-beds, and put them on the bottom of Dover cliffs turned topsy-turvy,—and then wrung the whole round like a wet towel, till it is as close and hard as it will knit;—such is the beginning of the operations which have produced the lateral masses of the higher Alps.

19. Next to these, you have the great sculptural force, which gave them, approximately, their present forms,—which let out all the lake waters above a certain level,—which cut the gorge of the Devil's Bridge—of the Via Mala—of Gondo—of the valley of Cluse; which let out the Rhone at St. Maurice, the Ticino at Faido, and shaped all the vast ravines which make the flanks of the great mountains awful.

20. Then, finally, you have the rain, torrent, and glacier, of human days.

Of whose action, briefly, this is the sum.

Over all the high surfaces, disintegration—melting away—diffusion—loss of height and terror.

In the ravines,—whether occupied by torrent or glacier,—gradual incumbrance by materials falling from above; choking up of their beds by silt—by moraine—by continual advances of washed slopes on their flanks; here and there, only, exceptional conditions occur in which a river is still continuing feebly the ancient cleaving action, and cutting its ravine deeper, or cutting it back.

Fix this idea thoroughly in your minds. Since the valley of Lauterbrunnen existed for human eyes,—or its pastures for the food of flocks,—it has not been cut deeper, but partially filled up by its torrents. The town of Interlachen stands where there was once lake,—and the long slopes of grassy sward on the north of it, stand where once was precipice. Slowly,—almost with infinite slowness,—the declining and incumbering action takes place; but incessantly, and,—as far as our experience reaches,—irredeemably.

21. Now I have touched in this lecture briefly on the theories respecting the elevation of the Alps, because I want to show you how uncertain and unsatisfactory they still remain. For our own work, we must waste no time on them; we must begin where all theory ceases; and where observation becomes possible,—that is to say, with the forms which the Alps have actually retained while men have dwelt among them, and on which we can trace the progress, or the power, of existing conditions of minor change. Such change has lately affected, and with grievous deterioration, the outline of the highest mountain of Europe, with that of its beautiful supporting buttresses,—the *aiguille de Bionnassay*. I do not care, and I want you not to care,—how crest or *aiguille* was lifted, or where its materials came from, or how much bigger it was once. I do care that you should know, and I will endeavor in these following pages securely to show you, in what strength and beauty of form it has actually stood since man was man, and what subtle modifications of aspect, or majestics of contour, it still suffers from the rains that beat upon it, or owes to the snows that rest.

CHAPTER II.

THE THREE ERAS.

(Part of a Lecture given at the London Institution in March, 1875, with added pieces from Lectures in Oxford.)

1. WE are now, so many of us, some restlessly and some wisely, in the habit of spending our evenings abroad, that I do not know if any book exists to occupy the place of one classical in my early days, called 'Evenings at Home.' It contained, among many well-written lessons, one, under the title of 'Eyes and No Eyes,' which some of my older hearers may remember, and which I should myself be sorry to forget. For if such a book were to be written in these days, I suppose the title and the moral of the story would both be changed; and, instead of 'Eyes and No Eyes,' the tale would be called 'Microscopes and No Microscopes.' For I observe that the prevailing habit of learned men is now to take interest only in objects which cannot be seen without the aid of instruments; and I believe many of my learned friends, if they were permitted to make themselves, to their own liking, instead of suffering the slow process of selective development, would give themselves heads like wasps', with three microscopic eyes in the middle of their foreheads, and two ears at the end of their antennæ.

2. It is the fashion, in modern days, to say that Pope was no poet. Probably our schoolboys, also, think Horace none. They have each, nevertheless, built for themselves a monument of enduring wisdom; and all the temptations and errors

of our own day, in the narrow sphere of lenticular curiosity, were anticipated by Pope, and rebuked, in one couplet:

“Why has not man a microscopic eye?
For this plain reason,—Man is not a fly.”

While the nobler following lines,

“Say, what avail, were finer optics given
To inspect a mite, not comprehend the heaven?”

only fall short of the truth of our present dullness, in that we inspect heaven itself, without understanding it.

3. In old times, then, it was not thought necessary for human creatures to know either the infinitely little, or the infinitely distant; nor either to see, or feel, by artificial help. Old English people used to say they perceived things with their five—or it may be, in a hurry, they would say, their seven, *senses*; and that word ‘sense’ became, and forever must remain, classical English, derived from classical Latin, in both languages signifying, not only the bodily sense, but the moral one. If a man heard, saw, and tasted rightly, we used to say he had his bodily senses perfect. If he judged, wished, and felt rightly, we used to say he had his moral senses perfect, or was a man ‘in his senses.’ And we were then able to speak precise truth respecting both matter and morality; and if we heard any one saying clearly absurd things,—as, for instance, that human creatures were automata,—we used to say they were out of their ‘senses,’ and were talking non-‘sense.’

Whereas, in modern days, by substituting analysis for sense in morals, and chemistry for sense in matter, we have literally blinded ourselves to the essential qualities of both matter and morals; and are entirely incapable of understanding what is meant by the description given us, in a book we once honored, of men who “by reason of use, have their *senses* exercised to discern both good and evil.”

4. And still, with increasingly evil results to all of us, the separation is every day widening between the man of science

and the artist—in that, whether painter, sculptor, or musician, the latter is preëminently a person who sees with his Eyes, hears with his Ears, and labors with his Body, as God constructed them; and who, in using instruments, limits himself to those which convey or communicate his human power, while he rejects all that increase it. Titian would refuse to quicken his touch by electricity; and Michael Angelo to substitute a steam hammer for his mallet. Such men not only do not desire, they imperatively and scornfully refuse, either the force, or the information, which are beyond the scope of the flesh and the senses of humanity. And it is at once the wisdom, the honor, and the peace, of the Masters both of painting and literature, that they rejoice in the strength, and rest in the knowledge, which are granted to active and disciplined life; and are more and more sure, every day, of the wisdom of the Maker in setting such measure to their being; and more and more satisfied, in their sight and their audit of Nature, that “the hearing ear, and the seeing eye,—the Lord hath made even both of them.”

5. This evening, therefore, I venture to address you speaking limitedly as an artist; but, therefore, I think, with a definite advantage in having been trained to the use of my eyes and senses, as my chief means of observation: and I shall try to show you things which with your own eyes you may any day see, and with your own common sense, if it please you to trust it, account for.

Things which you may see, I repeat; not which you might perhaps have seen, if you had been born when you were not born; nor which you might perhaps in future see, if you were alive when you will be dead. But what, in the span of earth, and space of time, allotted to you, may be seen with your human eyes, if you learn to use them.

And this limitation has, with respect to our present subject, a particular significance, which I must explain to you before entering on the main matter of it.

6. No one more honors the past labor—no one more regrets the present rest—of the late Sir Charles Lyell, than his

scholar, who speaks to you. But his great theorem of the constancy and power of existing phenomena was only in measure proved,—in a larger measure disputable; and in the broadest bearings of it, entirely false. Pardon me if I spend no time in qualifications, references, or apologies, but state clearly to you what Sir Charles Lyell's work itself enables us now to perceive of the truth. There are, broadly, three great demonstrable periods of the Earth's history. That in which it was crystallized; that in which it was sculptured; and that in which it is now being unsculptured, or deformed. These three periods interlace with each other, and gradate into each other—as the periods of human life do. Something dies in the child on the day that it is born,—something is born in the man on the day that he dies: nevertheless, his life is broadly divided into youth, strength, and decrepitude. In such clear sense, the Earth has its three ages: of their length we know as yet nothing, except that it has been greater than any man had imagined.

7. (THE FIRST PERIOD.)—But there was a period, or a succession of periods, during which the rocks which are now hard were soft; and in which, out of entirely different positions, and under entirely different conditions from any now existing or describable, the masses, of which the mountains you now see are made, were lifted and hardened, in the positions they now occupy, though in what forms we can now no more guess than we can the original outline of the block from the existing statue.

8. (THE SECOND PERIOD.)—Then, out of those raised masses, more or less in lines compliant with their crystalline structure, the mountains we now see were hewn, or worn, during the second period, by forces for the most part differing both in mode and violence from any now in operation, but the result of which was to bring the surface of the earth into a form approximately that which it has possessed as far as the records of human history extend. The Ararat of Moses's time, the Olympus and Ida of Homer's, are practically the same mountains now, that they were then.

9. (THE THIRD PERIOD.)—Not, however, without some calculable, though superficial, change; and that change, one of steady degradation. For in the third, or historical period, the valleys excavated in the second period are being filled up, and the mountains, hewn in the second period, worn or ruined down. In the second era the valley of the Rhone was being cut deeper every day; now it is every day being filled up with gravel. In the second era, the scars of Derbyshire and Yorkshire were cut white and steep; now they are being darkened by vegetation, and crumbled by frost. You cannot, I repeat, separate the periods with precision; but, in their characters, they are as distinct as youth from age.

10. The features of mountain form, to which during my own life I have exclusively directed my study, and which I endeavor to bring before the notice of my pupils in Oxford, are exclusively those produced by existing forces, on mountains whose form and substance have not been materially changed during the historical period.

For familiar example, take the rocks of Edinburgh Castle, and Salisbury Craig. Of course we know that they are both basaltic, and must once have been hot. But I do not myself care in the least what happened to them till they were cold.* They have both been cold at least longer than young

* More curious persons, who *are* interested in their earlier condition, will find a valuable paper by Mr. J. W. Judd, in the quarterly 'Journal of the Geological Society,' May, 1875; very successfully, it seems to me, demolishing all former theories on the subject, which the author thus sums, at p. 135.

"The series of events which we are thus required to believe took place in this district is therefore as follows:—

A. At the point where the Arthur's Seat group of hills now rises, a series of volcanic eruptions occurred during the Lower Calciferous Sandstone period, commencing with the emission of basaltic lavas, and ending with that of porphyrites.

B. An interval of such enormous duration supervened as to admit of—

a. The deposition of at least 3,000 feet of Carboniferous strata.

b. The bending of all the rocks of the district into a series of great anticlinal and synclinal folds.

Harry Percy's spur; and, since they were last brought out of the oven, in the shape which, approximately, they still retain, with a hollow beneath one of them, which, for aught I know, or care, may have been cut by a glacier out of white-hot lava, but assuredly at last got itself filled with pure, sweet, cold water, and called, in Lowland Scotch, the 'Nor' Loch;'—since the time, I say, when the basalt, above, became hard, and the lake beneath, drinkable, I am desirous to examine with you what effect the winter's frost and summer's rain have had on the crags and their hollows; how far the 'Kittle nine steps' under the castle walls, or the firm slope and cresting precipice above the dark ghost of Holyrood, are enduring or departing forms; and how long, unless the young engineers of New Edinburgh blast the incumbrance away, the departing mists of dawn may each day reveal the form, unchanged, of the Rock which was the strength of their Fathers.

11. Unchanged, or so softly modified that eye can scarcely trace, or memory measure, the work of time. Have you ever practically endeavored to estimate the alterations of form in any hard rocks known to you, during the course of your own lives? You have all heard, a thousand times over, the common statements of the school of Sir Charles Lyell. You know all about alluviums and gravels; and what torrents do, and what rivers do, and what ocean currents do; and when you see a muddy stream coming down in a flood, or even the yellow gutter more than usually rampant

c. The removal of every vestige of the 3,000 feet of strata by denudation.

C. The outburst, after this vast interval, of a second series of volcanic eruptions upon the *identical site* of the former ones, presenting in its succession of events *precisely the same sequence*, and resulting in the production of rocks of *totally undistinguishable character*.

Are we not entitled to regard the demand for the admission of such a series of extraordinary accidents as evidence of the *antecedent improbability* of the theory? And when we find that all attempts to suggest a period for the supposed second series of outbursts have successively failed, do not the difficulties of the hypothesis appear to be overwhelming?"

by the roadside in a thunder-shower, you think, of course, that all the forms of the Alps are to be accounted for by aqueous erosion, and that it's a wonder any Alps are still left. Well—any of you who have fished the pools of a Scottish or Welsh stream,—have you ever thought of asking an old keeper how much deeper they had got to be, while his hairs were silvering? Do you suppose he wouldn't laugh in your face?

There are some sitting here, I think, who must have themselves fished, for more than one summer, years ago, in Dove or Derwent,—in Tweed or Teviot. Can any of you tell me a single pool, even in the limestone or sandstone, where you could spear a salmon then, and can't reach one now—(providing always the wretches of manufacturers have left you one to be speared, or water that you can see through)? Do you know so much as a single rivulet of clear water which has cut away a visible half-inch of Highland rock, to your own knowledge, in your own day? You have seen whole banks, whole fields washed away; and the rocks exposed beneath? Yes, of course you have; and so have I. The rains wash the loose earth about everywhere, in any masses that they chance to catch—loose earth, or loose rock. But yonder little rifted well in the native whinstone by the sheepfold,—did the gray shepherd not put his lips to the same ledge of it, to drink—when he and you were boys together?

12. 'But Niagara, and the Delta of the Ganges—and—all the rest of it?' Well, of course a monstrous mass of continental drainage, like Niagara, *will* wash down a piece of crag once in fifty years, (but only that, if it's rotten below;) and tropical rains will eat the end off a bank of slime and alligators,—and spread it out lower down. But does any Scotchman know a change in the Fall of Fyers?—any Yorkshireman in the Force of Tees?

Except of choking up, it may be—not of cutting down. It is true, at the side of every stream you see the places in the rocks hollowed by the eddies. I suppose the eddies go

on at their own rate. But I simply ask, Has any human being ever known a stream, in hard rock, cut its bed an inch deeper down at a given spot?

13. I can look back, myself, now pretty nearly, I am sorry to say, half a century, and recognize no change whatever in any of my old dabbling-places; but that some stones are mossier, and the streams usually dirtier,—the Derwent above Keswick, for example.

‘But denudation does go on, somehow: one sees the whole glen is shaped by it?’ Yes, but not by the *stream*. The stream only sweeps down the loose stones; frost and chemical change are the powers that loosen them. I have indeed not known one of my dabbling-places changed in fifty years. But I have known the *éboulement* under the Rochers des Fyz, which filled the Lac de Chède; I passed through the valley of Cluse a night after some two or three thousand tons of limestone came off the cliffs of Maglans—burying the road and field beside it. I have seen half a village buried by a landslip, and its people killed, under Monte St. Angelo, above Amalfi. I have seen the lower lake of Llanberis destroyed, merely by artificial slate quarries; and the Waterhead of Coniston seriously diminished in purity and healthy flow of current by the *débris* of its copper mines. These are all cases, you will observe, of degradation; diminishing majesty in the mountain, and diminishing depth in the valley, or pools of its waters. I cannot name a single spot in which, during my lifetime spent among the mountains, I have seen a peak made grander, a watercourse cut deeper, or a mountain pool made larger and purer.

14. I am almost surprised, myself, as I write these words, at the strength which, on reflection, I am able to give to my assertion. For, even till I began to write these very pages, and was forced to collect my thoughts, I remained under the easily adopted impression, that, at least among soft earthy eminences, the rivers were still cutting out their beds. And it is not so at all. There are indeed banks here and there which they visibly remove; but whatever they sweep down

from one side, they sweep up on the other, and extend a promontory of land for every shelf they undermine: and as for those radiating fibrous valleys in the Apennines, and such other hills, which look symmetrically shaped by streams,—they are not lines of trench from below, but lines of wash or slip from above: they are the natural wear and tear of the surface, directed indeed in easiest descent by the bias of the stream, but not dragged down by its grasp. In every one of those ravines the water is being choked up to a higher level; it is not gnawing down to a lower. So that, I repeat, earnestly, their chasms being choked below, and their precipices shattered above, all mountain forms are suffering a deliquescent and corroding change,—not a sculpturesque or anatomizing change. All character is being gradually effaced; all crooked places made straight,—all rough places, plain; and among these various agencies, not of erosion, but *corrosion*, none are so distinct as that of the glacier, in filling up, not cutting deeper, the channel it fills; and in rounding and smoothing, but never sculpturing, the rocks over which it passes.

In this fragmentary collection of former work, now patched and darned into serviceableness, I cannot finish my chapters with the ornamental fringes I used to twine for them; nor even say, by any means, all I have in my mind on the matters they treat of: in the present case, however, the reader will find an elucidatory postscript added at the close of the fourth chapter, which he had perhaps better glance over before beginning the third.

CHAPTER III.

OF ICE-CREAM.

(Continuation of Lecture delivered at London Institution, with added Illustrations from Lectures at Oxford.)

1. THE statement at the close of the last chapter, doubtless surprising and incredible to many of my readers, must, before I reënforce it, be explained as referring only to glaciers visible, at this day, in temperate regions. For of formerly deep and continuous tropical ice, or of existing Arctic ice, and their movements, or powers, I know, and therefore say, nothing.* But of the visible glaciers couched upon the visible

* The following passage, quoted in the 'Geological Magazine' for June of this year, by Mr. Clifton Ward, of Keswick, from a letter of Professor Sedgwick's dated May 24th, 1842, is of extreme value; and Mr. Ward's following comments are most reasonable and just:—

"No one will, I trust, be so bold as to affirm that an uninterrupted glacier could ever have extended from Shap Fells to the coast of Holderness, and borne along the blocks of granite through the whole distance, without any help from the floating power of water. The supposition involves difficulties tenfold greater than are implied in the phenomenon it pretends to account for. The glaciers descending through the valleys of the higher Alps have an enormous transporting power: but there is no such power in a great sheet of ice expanded over a country without mountains, and at a nearly dead level."

The difficulties involved in the theories of Messrs. Croll, Belt, Goodchild, and others of the same extreme school, certainly press upon me—and I think I may say also upon others of my colleagues—increasingly, as the country becomes more and more familiar in its features. It is indeed a most startling thought, as one stands upon the eastern borders of the Lake-mountains, to fancy the ice from the Scotch hills stalking boldly across the Solway, marching steadily up the Eden

Alps, two great facts are very clearly ascertainable, which, in my lecture at the London Institution, I asserted in their simplicity, as follows:—

2. The first great fact to be recognized concerning them is that they are *Fluid* bodies. Sluggishly fluid, indeed, but definitely and completely so; and therefore, they do not scramble down, nor tumble down, nor crawl down, nor slip down; but *flow* down. They do not move like leeches, nor like caterpillars, nor like stones, but like, what they are made of, water.

That is the main fact in their state, and progress, on which all their great phenomena depend.

Fact first discovered and proved by Professor James Forbes, of Edinburgh, in the year 1842, to the astonishment of all the glacier theorists of his time;—fact strenuously denied, disguised, or confusedly and partially apprehended, by all of the glacier theorists of subsequent times, down to our own day; else there had been no need for me to tell it you again to-night.

3. The second fact of which I have to assure you is partly, I believe, new to geologists, and therefore may be of some farther interest to you because of its novelty, though I do not myself care a grain of moraine-dust for the newness of things; but rather for their oldness; and wonder more willingly at what my father and grandfather thought wonderful, (as, for instance, that the sun should rise, or a seed grow,)

Valley, and persuading some of the ice from Shap to join it on an excursion over Stainmoor, and bring its bowlders with it.

The outlying northern parts of the Lake-district, and the flat country beyond, have indeed been ravaged in many a raid by our Scotch neighbors, but it is a question whether, in glacial times, the Cumbrian mountains and Pennine chain had not strength in their protruding icy arms to keep at a distance the ice proceeding from the district of the southern uplands, the mountains of which are not *superior* in elevation. Let us hope that the careful geological observations which will doubtless be made in the forthcoming *scientific* Arctic Expedition will throw much new light on our past glacial period.

J. CLIFTON WARD,

KESWICK, April 26th, 1875.

than at any newly-discovered marvel. Nor do I know, any more than I care, whether this that I have to tell you be new or not; but I did not absolutely *know* it myself, until lately; for though I had ventured with some boldness to assert it as a consequence of other facts, I had never been under the bottom of a glacier to look. But, last summer, I was able to cross the dry bed of a glacier, which I had seen flowing, two hundred feet deep, over the same spot, forty years ago. And there I saw, what before I had suspected, that modern glaciers, like modern rivers, were not cutting their beds deeper, but filling them up. These, then, are the two facts I wish to lay distinctly before you this evening,—first, that glaciers are fluent; and, secondly, that they are filling up their beds, not cutting them deeper.

4. (I.) Glaciers are fluent; slowly, like lava, but distinctly.

And now I must ask you not to disturb yourselves, as I speak, with by-thoughts about ‘the theory of regelation.’ It is very interesting to know that if you put two pieces of ice together they will stick together; let good Professor Faraday have all the credit of showing us that; and the human race in general, the discredit of not having known so much as that, about the substance they have skated upon, dropped through, and ate any quantity of tons of—these two or three thousand years.

It was left, nevertheless, for Mr. Faraday to show them that two pieces of ice will stick together when they touch—as two pieces of hot glass will. But the capacity of ice for sticking together no more accounts for the making of a glacier, than the capacity of glass for sticking together accounts for the making of a bottle. The mysteries of crystalline vitrification, indeed, present endless entertainment to the scientific inquirer; but by no theory of vitrification can he explain to us how the bottle was made narrow at the neck, or dishonestly vacant at the bottom. Those conditions of it are to be explained only by the study of the centrifugal and moral powers to which it has been submitted.

5. In like manner, I do not doubt but that wonderful phenomena of congelation, regelation, degelation, and gelation pure without preposition, take place whenever a school-boy makes a snowball; and that miraculously rapid changes in the structure and temperature of the particles accompany the experiment of producing a star with it on an old gentleman's back. But the principal conditions of either operation are still entirely dynamic. To make your snowball hard, you must squeeze it hard; and its expansion on the recipient surface is owing to a lateral diversion of the impelling forces, and not to its regelatic properties.

6. Our first business, then, in studying a glacier, is to consider the mode of its original deposition, and the large forces of pressure and fusion brought to bear on it, with their necessary consequences on such a substance as we practically know snow to be,—a powder, ductile by wind, compressible by weight; diminishing by thaw, and hardening by time and frost; a thing which sticks to rough ground, and slips on smooth; which clings to the branch of a tree, and slides on a slated roof.

7. Let us suppose, then, to begin with, a volcanic cone in which the crater has been filled, and the temperature cooled, and which is now exposed to its first season of glacial agencies. Then let Plate 1, Fig. 1, represent this mountain, with part of the plains at its foot under an equally distributed depth of a first winter's snow, and place the level of perpetual snow at any point you like—for simplicity's sake, I put it halfway up the cone. Below this snow-line, all snow disappears in summer; but above it, the higher we ascend, the more of course we find remaining. It is quite wonderful how few feet in elevation make observable difference in the quantity of snow that will lie. This last winter, in crossing the moors of the peak of Derbyshire, I found, on the higher masses of them, that ascents certainly not greater than that at Harrow from the bottom of the hill to the school-house, made all the difference between easy and difficult traveling, by the change in depth of snow.

8. At the close of the summer, we have then the remnant represented in Fig. 2, on which the snows of the ensuing winter take the form in Fig. 3; and from this greater heap we shall have remaining a greater remnant, which, supposing no wind or other disturbing force modified its form, would appear as at Fig. 4; and, under such necessary modification, together with its own deliquescence, would actually take some such figure as that shown at Fig. 5.

Now, what is there to hinder the continuance of accumulation? If we cover this heap with another layer of winter's snow (Fig. 6), we see at once that the ultimate condition would be, unless somehow prevented, one of enormous mass, superincumbent on the peak—like a colossal haystack, and extending far down its sides below the level of the snow-line.

You are, however, doubtless well aware that no such accumulation as this ever does take place on a mountain-top.

9. So far from it, the eternal snows do not so much as fill the basins between mountain-tops; but, even in these hollows, form depressed sheets at the bottom of them. The difference between the actual aspect of the Alps, and that which they would present if no arrest of the increasing accumulation on them took place, may be shown before you with the greatest ease; and in doing so I have, in all humility, to correct a grave error of my own, which, strangely enough, has remained undetected, or at least unaccused, in spite of all the animosity provoked by my earlier writings.

10. When I wrote the first volume of 'Modern Painters,' scarcely any single fact was rightly known by anybody, about either the snow or ice of the Alps. Chiefly the snows had been neglected: very few eyes had ever seen the higher snows near; no foot had trodden the greater number of Alpine summits; and I had to glean what I needed for my pictorial purposes as best I could,—and my best in this case was a blunder. The thing that struck me most, when I saw the Alps myself, was the enormous accumulation of snow on them; and the way it clung to their steep sides. Well, I

said to myself, 'of course it must be as thick as it can stand; because, as there is an excess which doesn't melt, it would go on building itself up like the Tower of Babel, unless it tumbled off. There must be always, at the end of winter, as much snow on every high summit as it can carry.'

There *must*, I said. That is the mathematical method of science as opposed to the artistic. Thinking of a thing, and demonstrating,—instead of looking at it. Very fine, and very sure, if you happen to have before you all the elements of thought; but always very dangerously inferior to the unpretending method of sight—for people who have eyes, and can use them. If I had only *looked* at the snow carefully, I should have seen that it wasn't anywhere as thick as it could stand or lie—or, at least, as a hard substance, though deposited in powder, could stand. And then I should have asked myself, with legitimate rationalism, why it didn't; and if I had but asked—Well, it's no matter what perhaps might have happened if I had. I never did.

11. Let me now show you, practically, how great the error was. Here is a little model of the upper summits of the Bernese range. I shake over them as much flour as they will carry; now I brush it out of the valleys, to represent the melting. Then you see what is left stands in these domes and ridges, representing a mass of snow about six miles deep. That is what the range would be like, however, if the snow stood up as the flour does; and snow is at least, you will admit, as adhesive as flour.

12. But, you will say, the scale is so different, you can't reason from the thing on that scale. A most true objection. You cannot; and therefore I beg you, in like manner, not to suppose that Professor Tyndall's experiments on "a straight prism of ice, four inches long, an inch wide, and a little more than an inch in depth,"* are conclusive as to the modes of glacier motion.

In what respect then, we have to ask, would the difference in scale modify the result of the experiment made here on

* 'Glaciers of the Alps,' p. 348.

the table, supposing this model was the Jungfrau itself, and the flour supplied by a Cyclopean miller and his men?

13. In the first place, the lower beds of a mass six miles deep would be much consolidated by pressure. But would they be *only* consolidated? Would they be in nowise squeezed out at the sides?

The answer depends of course on the nature of flour, and on its conditions of dryness. And you must feel in a moment that, to know what an Alpine range would look like, heaped with any substance whatever, as high as the substance would stand—you must first ascertain how high the given substance *will* stand—on level ground. You might perhaps heap your Alp high with wheat,—not so high with sand,—nothing like so high with dough; and a very thin coating indeed would be the utmost possible result of any quantity whatever of showers of manna, if it had the consistence, as well as the taste, of wafers made with honey.

14. It is evident, then, that our first of inquiries bearing on the matter before us must be, How high will snow stand on level ground, in a block or column? Suppose you were to plank in a square space, securely—twenty feet high—thirty—fifty; and to fill it with dry snow. How high could you get your pillar to stand, when you took away the wooden walls? and when you reached your limit, or approached it, what would happen?

Three more questions instantly propose themselves; namely, What happens to snow under given pressure? will it under some degrees of pressure change into anything else than snow? and what length of time will it take to effect the change?

Hitherto we have spoken of snow as dry only, and therefore as solid substance, permanent in quantity and quality. You know that it very often is not dry; and that, on the Alps, in vast masses, it is throughout great part of the year thawing, and therefore diminishing in quantity.

It matters not the least, to our general inquiry, how much of it is wet, or thawing, or at what times. I merely at

present have to introduce these two conditions as elements in the business. It is not dry snow always, but often soppy snow—snow and water,—that you have to squeeze. And it is not freezing snow always, but very often thawing snow,—diminishing therefore in bulk every instant,—that you have to squeeze.

It does not matter, I repeat, to our immediate purpose, when, or how far, these other conditions enter our ground; but it is best, I think, to put the dots on the i's as we go along. You have heard it stated, hinted, suggested, implied, or whatever else you like to call it, again and again, by the modern school of glacialists, that the discoveries of James Forbes were anticipated by Rendu.

15. I have myself more respect for Rendu than any modern glacialist has. He was a man of De Saussure's temper, and of more than De Saussure's intelligence; and if he hadn't had the misfortune to be a bishop, would very certainly have left James Forbes's work a great deal more than cut out for him;—stitched—and pretty tightly—in most of the seams. But he was a bishop; and could only examine the glaciers to an episcopal extent; and guess, the best he could, after that. His guesses are nearly always splendid; but he must needs sometimes reason as well as guess; and he reasons himself with beautiful plausibility, ingenuity, and learning, up to the conclusion—which he announces as positive—that it always freezes on the Alps, even in summer. James Forbes was the first who ascertained the fallacy of this episcopal position; and who announced—to our no small astonishment—that it always thawed on the Alps, even in winter.

16. Not superficially of course, nor in all places. But internally, and in a great many places. And you will find it is an ascertained fact—the first great one of which we owe the discovery to him—that all the year round, you must reason on the masses of aqueous deposit on the Alps as, practically, in a state of squash. Not freezing ice or snow, nor dry ice or snow, but in many places saturated with,—

everywhere affected by,—moisture; and always subject, in enormous masses, to the conditions of change which affect ice or snow at the freezing-point, and not below it. Even James Forbes himself scarcely, I think, felt enough the importance of this element of his own discoveries, in all calculations of glacier motion. He sometimes speaks of his glacier a little too simply, as if it were a stream of *undiminishing* substance, as of treacle or tar, moving under the action of gravity only; and scarcely enough recognizes the influence of the subsiding languor of its fainting mass, as a constant source of motion; though nothing can be more accurate than his actual account of its results on the surface of the Mer de Glace, in his fourth letter to Professor Jameson.

17. Let me drive the notion well home in your own minds, therefore, before going farther. You may permanently secure it, by an experiment easily made by each one of you for yourselves this evening, and that also on the minute and easily tenable scale which is so approved at the Royal Institution; for in this particular case the material conditions may indeed all be represented in very small compass. Pour a little hot water on a lump of sugar in your teaspoon. You will immediately see the mass thaw, and subside by a series of, in miniature, magnificent and appalling catastrophes, into a miniature glacier, which you can pour over the edge of your teaspoon into your saucer; and if you will then add a little of the brown sugar of our modern commerce—of a slightly sandy character,—you may watch the rate of the flinty erosion upon the soft silver of the teaspoon at your ease, and with Professor Ramsay's help, calculate the period of time necessary to wear a hole through the bottom of it.

I think it would be only tiresome to you if I carried the inquiry farther by progressive analysis. You will, I believe, permit, or even wish me, rather to state summarily what the facts are:—their proof, and the process of their discovery, you will find incontrovertibly and finally given in this volume, classical, and immortal in scientific literature—which, twenty-five years ago, my good master Dr. Buckland

ordered me, in his lecture-room at the Ashmolean, to get,—as closing all question respecting the nature and cause of glacier movement,—James Forbes's 'Travels in the Alps.'

18. The entire mass of snow and glacier, (the one passing gradually and by infinite modes of transition into the other, over the whole surface of the Alps,) is one great accumulation of ice-cream, poured upon the tops, and *flowing* to the bottoms, of the mountains, under precisely the same special condition of gravity and coherence as the melted sugar poured on the top of a bride-cake; but on a scale which induces forms and accidents of course peculiar to frozen water, as distinguished from frozen syrup, and to the scale of Mont Blanc and the Jungfrau, as compared to that of a bride-cake. Instead of an inch thick, the ice-cream of the Alps will stand two hundred feet thick,—no thicker, anywhere, if it can run off; but will lie in the hollows like lakes, and clot and cling about the less abrupt slopes in festooned wreaths of rich mass and sweeping flow, breaking away, where the steepness becomes intolerable, into crisp precipices and glittering cliffs.

19. Yet never for an instant motionless—never for an instant without internal change, through all the gigantic mass, of the relations to each other of every crystal grain. That one which you break now from its wave-edge, and which melts in your hand, has had no rest, day nor night, since it faltered down from heaven when you were a babe at the breast; and the white cloud that scarcely veils yonder summit—seven-colored in the morning sunshine—has strewed it with pearly hoar-frost, which will be on this spot, trodden by the feet of others, in the day when you also will be trodden under feet of men, in your grave.

20. Of the infinite subtlety, the exquisite constancy of this fluid motion, it is nearly impossible to form an idea in the least distinct. We hear that the ice advances two feet in the day; and wonder how such a thing can be possible, unless the mass crushed and ground down everything before it. But think a little. Two feet in the day is a foot in twelve hours,—only an inch in an hour, (or say a little

more in the day time, as less in the night,)—and that is maximum motion in mid-glacier. If your Geneva watch is an inch across, it is three inches round, and the minute-hand of it moves three times faster than the fastest ice. Fancy the motion of that hand so slow that it must take three hours to get round the little dial. Between the shores of the vast gulf of hills, the long wave of hastening ice only keeps pace with that lingering arrow, in its central crest; and that invisible motion fades away upwards through forty years of slackening stream, to the pure light of dawn on yonder stainless summit, on which this morning's snow lies—motionless.

21. And yet, slow as it is, this infinitesimal rate of current is enough to drain the vastest gorges of the Alps of their snow, as clearly as the sluice of a canal-gate empties a lock. The mountain basin included between the Aiguille Verte, the Grandes Jorasses, and the Mont Blanc, has an area of about thirty square miles, and only one outlet, little more than a quarter of a mile wide: yet, through this the contents of the entire basin are drained into the valley of Chamounix with perfect steadiness, and cannot possibly fill the basin beyond a certain constant height above the point of overflow.

Overflow, I say, deliberately; distinguishing always the motion of this true fluid from that of the sand in an hour-glass, or of stones slipping in a heap of shale. But that the nature of this distinction may be entirely conceived by you, I must ask you to pause with some attention at this word, to 'flow,'—which attention may perhaps be more prudently asked in a separate chapter.

CHAPTER IV.

LABITUR, ET LABETUR.

(Lecture given at London Institution, continued, with added Illustrations.)

1. OF course—we all know what flowing means. Well, it is to be hoped so; but I'm not sure. Let us see. The sand of the hour-glass,—do you call the motion of that flowing?

No. It is only a consistent and measured fall of many unattached particles.

Or do you call the entrance of a gas through an aperture, out of a full vessel into an empty one, flowing?

No. That is expansion—not flux.

Or the draught through the keyhole? No—is your answer, still. Let us take instance in water itself. The *spring* of a fountain, or of a sea breaker into spray. You don't call that flowing?

No.

Nor the *fall* of a fountain, or of rain?

No.

Well, the *rising* of a breaker,—the current of water in the hollow shell of it,—is *that* flowing? No. After it has broken—rushing up over the shingle, or impatiently advancing on the sand! You begin to pause in your negative.

Drooping back from the shingle then, or ebbing from the sand? Yes; flowing, in some places, certainly, now.

You see how strict and distinct the idea is in our minds. Will you accept—I think you may—this definition of it? Flowing is “the motion of liquid or viscous matter over

solid matter, under the action of gravity, without any other impelling force.”

2. Will you accuse me, in pressing this definition on you, of wasting time in mere philological nicety? Permit me, in the capacity which even the newspapers allow to me,—that of a teacher of expression,—to answer you, as often before now, that philological nicety is philosophical nicety. See the importance of it here. I said a glacier flowed. But it remains a question whether it does not also *spring*,—whether it can rise as a fountain, no less than descend as a stream.

For, broadly, there are two methods in which either a stream or glacier moves.

The first, by withdrawing a part of its mass in front, the vacancy left by which, another part supplies from behind.

That is the method of a continuous stream,—perpetual deduction,* by what precedes, or what follows.

The second method of motion is when the mass that is behind, presses, or is poured in upon, the masses before. That is the way in which a cataract falls into a pool, or a fountain into a basin.

Now, in the first case, you have catenary curves, or else curves of traction, going down the stream. In the second case, you have irregularly concentric curves, and ripples of impulse and compression, succeeding each other round the pool.

3. Now the Mer de Glace is deduced down its narrow channel, like a river; and the Glacier des Bossons is deduced down its deep ravine; and both were once injected into a pool of ice in the valley below, as the Glacier of the Rhone is still. Whereupon, observe, if a stream falls into a basin—level-lipped all round—you know when it runs over it must be pushed over—lifted over. But if ice is thrown into a heap in a plain, you can't tell, without the closest observation, how violently it is pushed from behind, or how softly

* “Ex quo illa admirabilis a majoribus aquæ facta deductio est.”—Cic. de Div., 1. 44.

it is diffusing itself in front; and I had never set my eyes or wits to ascertain where compression in the mass ceased, and diffusion began, because I thought Forbes had done everything that had to be done in the matter. But in going over his work again I find he has left just one thing to be still explained; and that one chance to be left to me to show you this evening, because, by a singular and splendid Nemesis; in the obstinate rejection of Forbes's former conclusively simple experiments, and in the endeavor to substitute others of his own, Professor Tyndall has confused himself to the extreme point of not distinguishing these two conditions of deductive and impulsive flux. His incapacity of drawing, and ignorance of perspective, prevented him from constructing his diagrams either clearly enough to show him his own mistakes, or prettily enough to direct the attention of his friends to them;—and they luckily remain to us, in their absurd immortality.

4. Forbes poured viscous substance in layers down a trough; let the stream harden; cut it into as many sections as were required; and showed, in permanence, the actual conditions of such viscous motion. Eager to efface the memory of these conclusive experiments, Professor Tyndall ('Glaciers of the Alps,' page 383) substituted this literally 'superficial' one of his own. He stamped circles on the top of a viscous current; found, as it flowed, that they were drawn into ovals; but had not wit to consider, or sense to see, whether the area of the circle was enlarged or diminished—or neither—during its change in shape. He jumped, like the rawest schoolboy, to the conclusion that a circle, becoming an oval, must necessarily be compressed! You don't compress a globe of glass when you blow it into a soda-water bottle, do you?

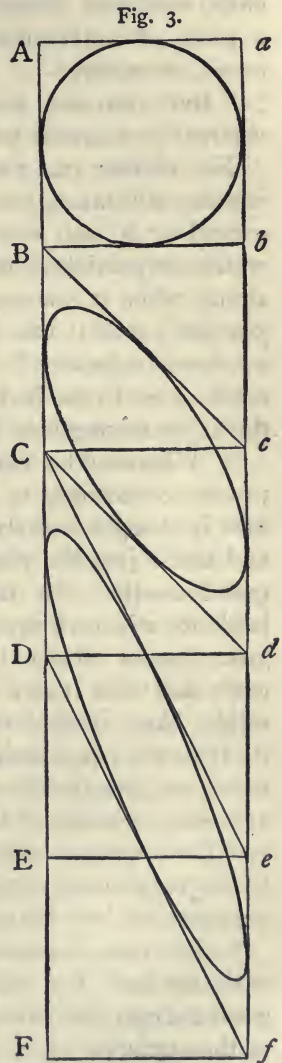
5. But to reduce Professor Tyndall's problem into terms. Let $A F$, Fig. 3, opposite, be the side of a stream of any substance whatever, and $a f$ the middle of it; and let the particles at the middle move twice as fast as the particles at the sides. Now we cannot study all the phenomena of fluid motion in one diagram, nor any one phenomenon of fluid

motion but by progressive diagrams; and this first one only shows the changes of form which would take place in a substance which moved with *uniform* increase of rapidity from side to center. No fluid substance *would* so move; but you can only trace the geometrical facts step by step, from uniform increase to accelerated increase. Let the increase of rapidity, therefore, first be supposed uniform. Then, while the point A moves to B, the point *a* moves to *c*, and any points once intermediate in a right line between A and *a*, will now be intermediate in a right line between B and *c*, and their places determinable by verticals from each to each.

I need not be tedious in farther describing the figure. Suppose A *b* a square mile of the substance, and the origin of motion on the line A *a*. Then when the point A has arrived at B, the point B has arrived at C, the point *a* at *c*, and the point *b* at *d*, and the mile square, A *b*, has become the mile rhombic, B *d*, of the same area; and if there were a circle drawn in the square A *b*, it will become the fat ellipse in B *d*, and thin ellipse in C *f*, successively.

6. Compressed, thinks Professor Tyndall, one way, and stretched the other!

But the professor has never so much as understood what 'stretching' means. He thinks that ice won't stretch!



Does he suppose treacle, or oil, *will*? The brilliant natural philosopher has actually, all through his two books on glaciers, confused viscosity with elasticity! You can *stretch* a piece of india-rubber, but you can only *diffuse* treacle, or oil, or water.

“But you can draw these out into a narrow stream, whereas you cannot pull the ice?”

No; neither can you pull water, can you? In compressing any substance, you can apply any force you like; but in extending it, you can only apply force less than that with which its particles cohere. You can pull honey into a thin string, when it comes out of the comb; let it be candied, and you can't pull it into a thin string. Does that make it less a viscous substance? You can't stretch mortar either. It cracks even in the hod, as it is heaped. Is it, therefore, less fluent or manageable in the mass?

7. Whereas the curious fact of the matter is, that, in precise contrariety to Mr. Tyndall's idea, ice, (glacier ice, that is to say,) *will* stretch; and that treacle or water won't! and that's just the plague of dealing with the whole glacier question—that the incomprehensible, untenable, indescribable ice will both squeeze and open; and is slipping through your fingers all the time besides, by melting away. You can't deal with it as a simple fluid; and still less as a simple solid. And instead of having less power to accommodate itself to the irregularities of its bed than water, it has much more;—a great deal more of it will subside into a deep place, and ever so much of it melt in passing over a shallow one; and the center, at whatever rate it moves, will supply itself by the exhaustion of the sides, instead of raging round, like a stream in back-water.

8. However, somehow, I must contrive to deal at least with the sure fact that the velocity of it is progressively greater from the sides to the center, and from the bottom to the surface.

Now it is the last of these progressive increments which is of chief importance to my present purpose.

For my own conviction on the matter;—mind, not *theory*, for a man can always avoid constructing theories, but cannot possibly help his conviction, and may sometimes feel it right to state them,—my own conviction is that the ice, when it is of any considerable depth, no more moves over the bottom than the lower particles of a running stream of honey or treacle move over a plate; but that, in entire rest at the bottom, except so far as it is moved by dissolution, it increases in velocity to the surface in a curve of the nature of a parabola, or of a logarithmic curve, capable of being infinitely prolonged, on the supposition of the depth of the ice increasing to infinity.

9. But it is now my fixed principle not to care what I think, when a fact can be ascertained by looking, or measuring. So, not having any observations of my own on this matter, I seek what help may be had elsewhere; and find in the eleventh chapter of Professor Tyndall's 'Glaciers of the Alps,' two most valuable observations, made under circumstances of considerable danger, calmly encountered by the author, and grumblingly by his guide,—danger consisting in the exposure to a somewhat close and well-supported fire of round and grape from the glacier of the Géant, which objected to having its velocity measured. But I find the relation of these adventures so much distract me from the matter in hand, that I must digress briefly into some notice of the general literary structure of this remarkable book.

10. Professor Tyndall never fails to observe with complacency, and to describe to his approving readers, how unclouded the luminous harmonies of his reason, imagination, and fancy remained, under conditions which, he rightly concludes, would have been disagreeably exciting, or even distinctly disturbing, to less courageous persons. And indeed I confess, for my own part, that my successful observations have always been made while lying all my length on the softest grass I could find; and after assuring myself with extreme caution that if I chanced to go to sleep, (which in the process of very profound observations I usu-

ally do, at least of an afternoon), I am in no conceivable peril beyond that of an ant-bite. Nevertheless, the heroic Professor does not, it seems to me, sufficiently recognize the universality of the power of English, French, German, and Italian gentlemen to retain their mental faculties under circumstances even of more serious danger than the crumbling of a glacier moraine; and to think with quickness and precision, when the chances of death preponderate considerably, or even conclusively, over those of life. Nor does Professor Tyndall seem to have observed that the gentlemen possessing this very admirable power in any high degree, do not usually think their own emotions, or absence of emotions, proper subjects of printed history, and public demonstration.

11. Nevertheless, when a national philosopher, under showers of granite grape, places a stake and auger against his heart, buttons his coat upon them, and cuts himself an oblique staircase up a wall of ice, nearly vertical, to a height of forty feet from the bottom; and there, unbuttoning his coat, pierces the ice with his auger, drives in his stake, and descends without injury, though during the whole operation his guide "growls audibly," we are bound to admit his claim to a scientific Victoria Cross—or at least crosslet,—and even his right to walk about in our London drawing-rooms in a gracefully cruciferous costume; while I have no doubt also that many of his friends will be interested in such metaphysical particulars and examples of serene mental analysis as he may choose to give them in the course of his autobiography. But the Professor ought more clearly to understand that scientific writing is one thing, and pleasant autobiography another; and though an officer may not be able to give an account of a battle without involving some statement of his personal share in it, a scientific observer might with entire ease, and much convenience to the public, have published 'The Glaciers of the Alps' in two coincident, but not coalescing, branches—like the glaciers of the Giant and Léchaud; and that out of the present inch and

a half thickness of the volume, an inch and a quarter might at once have been dedicated to the Giant glacier of the autobiography, and the remaining quarter of an inch to the minor current of scientific observation, which, like the Glacier de Léchaud, appears to be characterized by "the comparative shallowness of the upper portion,"* and by its final reduction to "a driblet measuring about one-tenth of its former transverse dimensions."

12. It is true that the book is already divided into two portions,—the one described as "chiefly narrative," and the other as "chiefly scientific." The chiefly narrative portion is, indeed, full of very interesting matter fully justifying its title; as, for instance, "We tumbled so often in the soft snow, and our clothes and boots were so full of it, that we thought we might as well try the sitting posture in sliding down. We did so, and descended with extraordinary velocity" (p. 116). Or again: "We had some tea, which had been made at the Montanvert, and carried up to the Grand Mulets in a bottle. My memory of that tea is not pleasant" (p. 73). Or in higher strains of scientific wit and pathos: "As I looked at the objects which had now become so familiar to me, I felt that, though not viscous, the ice did not lack the quality of adhesiveness, and I felt a little sad at the prospect of bidding it so soon farewell."

13. But the merely romantic readers of this section, rich though it be in sentiment and adventure, will find themselves every now and then arrested by pools, as it were, of almost impassable scientific depth—such as the description of a rock "evidently to be regarded as an assemblage of magnets, or as a single magnet full of consequent points" (p. 140). While, on the other hand, when in the course of my own work, finding myself pressed for time, and eager to collect every scrap of ascertained data accessible to me, I turn hopefully to the eleventh chapter of the "chiefly scientific" section of the volume, I think it hard upon me that I must read through three pages of narrative describing the Pro-

* 'Glaciers of the Alps,' p. 288.

fessor's dangers and address, before I can get at the two observations which are the sum of the scientific contents of the chapter, yet to the first of which "unfortunately some uncertainty attached itself," and the second of which is wanting in precisely the two points which would have made it serviceable. First, it does not give the rate of velocity at the base, but five feet above the base; and, secondly, it gives only three measurements of motion. Had it given four, we could have drawn the curve; but we can draw any curve we like through three points.

14. I will try the three points, however, with the most probable curve; but this being a tedious business, will reserve it for a separate chapter, which readers may skip if they choose: and insert, for the better satisfaction of any who may have been left too doubtful by the abrupt close of my second chapter, this postscript written the other day after watching the streamlets on the outlying fells of Shap.

15. Think what would be the real result, if any stream among our British hills at this moment *were* cutting its bed deeper.

In order to do so, it must of course annually be able to remove the entire zone of *débris* moved down to its bed from the hills on each side of it—and somewhat more.

Take any Yorkshire or Highland stream you happen to know, for example; and think what quantity of *débris* must be annually moved, on the hill surfaces which feed its waters. Remember that a lamb cannot skip on their slopes, but it stirs with its hoofs some stone or grain of dust which will more or less roll or move downwards. That no shower of rain can fall—no wreath of snow melt, without moving some quantity of dust downwards. And that no frost can break up, without materially loosening some vast ledges of crag, and innumerable minor ones; nor without causing the fall of others as vast, or as innumerable. Make now some effort to conceive the quantity of rock and dust moved annually, lower, past any given level traced on the flanks of any considerable mountain stream, over the area it drains—

say, for example, in the basin of the Ken above Kendal, or of the Wharfe above Bolton Abbey.

16. Then, if either of those streams were cutting their beds deeper,—that quantity of rock, and something more, must be annually carried down by their force, past Kendal bridge, and Bolton stepping-stones. Which you will find would occasion phenomena very astonishing indeed to the good people of Kendal and Wharfedale.

17. “But it need not be carried down past the stepping-stones,” you say—“it may be deposited somewhere above.” Yes, that is precisely so;—and wherever it is deposited, the bed of the stream, or of some tributary streamlet, is being raised. Nobody notices the raising of it;—another stone or two among the wide shingle—a tongue of sand an inch or two broader at the burnside—who can notice that? Four or five years pass;—a flood comes;—and Farmer So-and-So’s field is covered with slimy ruin. And Farmer So-and-So’s field is an inch higher than it was, for evermore—but who notices that? The shingly stream has gone back into its bed: here and there a whiter stone or two gleams among its pebbles, but next year the water stain has darkened them like the rest, and the bed is just as far below the level of the field as it was. And your careless geologist says, ‘What a powerful stream it is, and how deeply it is cutting its bed through the glen!’

18. Now, carry out this principle for existing glaciers. If the glaciers of Chamouni were cutting their beds deeper, either the annual line of débris of the Mont Blanc range on its north side must be annually carried down past the Pont Pelissier; or the valley of Chamouni must be in process of filling up, while the ravines at its sides are being cut down deeper. Will any geologist, supporting the modern glacial theories, venture to send me, for the next number of *Deucalion*, his idea, on this latter, by him inevitable, hypothesis, of the profile of the bottom of the Glacier des Bossons, a thousand years ago; and a thousand years hence?

CHAPTER V.

THE VALLEY OF CLUSE.

1. WHAT strength of faith men have in each other; and how impossible it is for them to be independent in thought, however hard they try! Not that they ever ought to be; but they should know, better than they do, the incumbrance that the false notions of others is to them.

Touching this matter of glacial grinding action; you will find every recent writer taking up, without so much as a thought of questioning it, the notion adopted at first careless sight of a glacier stream by some dull predecessor of all practical investigation—that the milky color of it is all produced by dust ground off the rocks at the bottom. And it never seems to occur to any one of the Alpine Club men, who are boasting perpetually of their dangers from falling stones; nor even to professors impeded in their most important observations by steady fire of granite grape, that falling stones may probably knock their edges off when they strike; and that moving banks and fields of moraine, leagues long, and leagues square, of which every stone is shifted a foot forward every day on the surface melting beneath them, must in such shifting be liable to attrition enough to produce considerably more dust, and that of the finest kind, than any glacier stream carries down with it—not to speak of processes of decomposition accelerated, on all services liable to them, by alternate action of frost and fierce sunshine.

2. But I have not, as yet, seen any attempts to determine even the first data on which the question of attrition must be dealt with. I put it, in simplicity, at the close of last chapter. But, in its full extent, the inquiry ought not to be made merely of the bed of the Glacier des Bossons; but

of the bed of the Arve, from the Col de Balme to Geneva; in which the really important points for study are the action of its waters at Pont Pelissier;—at the falls below Servoz;—at the portal of Cluse;—and at the northern end of the slope of the Salève.

3. For these four points are the places where, if at all, sculptural action is really going on upon its bed: at those points, if at all, the power of the Second Era, the era of sculpture, is still prolonged into this human day of ours. As also it is at the rapids and falls of all swiftly descending rivers. The one vulgar and vast deception of Niagara has blinded the entire race of modern geologists to the primal truth of mountain form, namely, that the rapids and cascades of their streams indicate, not points to which the falls have receded, but places where the remains of once colossal cataracts still exist, at the places eternally (in human experience) appointed for the formation of such cataracts, by the form and hardness of the local rocks. The rapids of the Amazon, the Nile, and the Rhine, obey precisely the same law as the little Wharfe at its Strid, or as the narrow ‘rivus aquæ’ which, under a bank of strawberries in my own tiny garden, has given me perpetual trouble to clear its channel of the stones brought down in flood, while, just above, its place of picturesque cascade is determined for it by a harder bed of Coniston flags, and the little pool, below that cascade, never incumbered with stones at all.

4. Now the bed of the Arve, from the crest of the Col de Balme to Geneva, has a fall of about 5,000 feet; and if any young Oxford member of the Alpine Club is minded to do a piece of work this vacation, which in his old age, when he comes to take stock of himself, and edit the fragments of himself, as I am now sorrowfully doing, he will be glad to have done, (even though he risked neither his own nor any one else’s life to do it,) let him survey that bed accurately, and give a profile of it, with the places and natures of emergent rocks, and the ascertainable depths and dates of alluvium cut through, or in course of deposition.

5. After doing this piece of work carefully, he will probably find some valuable ideas in his head concerning the proportion of the existing stream of the Arve to that which once flowed from the glacier which deposited the moraine of Les Tines; and again, of that torrent to the infinitely vaster one of the glacier that deposited the great moraine of St. Gervais; and finally of both, to the cliffs of Cluse, which have despised and resisted them. And ideas which, after good practical work, he finds in his head, are likely to be good for something: but he must not seek for them; all thoughts worth having come like sunshine, whether we will or no: the thoughts not worth having are the little lucifer matches we strike ourselves.

6. And I hasten the publication of this number of Deucalion, to advise any reader who cares for the dreary counsel of an old-fashioned Alpine traveler, to see the valley of Cluse this autumn, if he may, rather than any other scene among the Alps;—for if not already destroyed, it must be so, in a few months more, by the railway which is to be constructed through it, for the transport of European human diluvium. The following note of my last walk there, written for my autumn lectures, may be worth preserving among the shingle of my scattered work.

7. I had been, for six months in Italy, never for a single moment quit of liability to interruption of thought. By day or night, whenever I was awake, in the streets of every city, there were entirely monstrous and inhuman noises in perpetual recurrence. The violent rattle of carriages, driven habitually in brutal and senseless haste, or creaking and thundering under loads too great for their cattle, urged on by perpetual roars and shouts: wild bellowing and howling of obscene wretches far into the night: clashing of church bells, in the morning, dashed into reckless discord, from twenty towers at once, as if rung by devils to defy and destroy the quiet of God's sky, and mock the laws of His harmony: filthy, stridulous shrieks and squeaks, reaching for miles into the quiet air, from the railroad stations at every gate:

and the vociferation, endless, and frantic, of a passing populace whose every word was in mean passion, or in unclean jest. Living in the midst of this, and of vulgar sights more horrible than the sounds, for six months, I found myself—suddenly, as in a dream—walking again alone through the valley of Cluse, unchanged since I knew it first, when I was a boy of fifteen, quite forty years ago;—and in perfect quiet, and with the priceless completion of quiet, that I was without fear of any outcry or base disturbance of it.

8. But presently, as I walked, the calm was deepened, instead of interrupted, by a murmur—first low, as of bees, and then rising into distinct harmonious chime of deep bells, ringing in true cadences—but I could not tell where. The cliffs on each side of the valley of Cluse vary from 1,500 to above 2,000 feet in height; and, without absolutely echoing the chime, they so accepted, prolonged, and diffused it, that at first I thought it came from a village high up and far away among the hills; then presently it came down to me as if from above the cliff under which I was walking; then I turned about and stood still, wondering; for the whole valley was filled with the sweet sound, entirely without local or conceivable origin: and only after some twenty minutes' walk, the depth of tones, gradually increasing, showed me that they came from the tower of Maglans in front of me; but when I actually got into the village, the cliffs on the other side so took up the ringing, that I again thought for some moments I was wrong.

Perfectly beautiful, all the while, the sound, and exquisitely varied,—from ancient bells of perfect tone and series, rung with decent and joyful art.

“What are the bells ringing so to-day for,—it is no fête?” I asked of a woman who stood watching at a garden gate.

“For a baptism, sir.”

And so I went on, and heard them fading back, and lost among the same bewildering answers of the mountain air.

9. Now that half-hour's walk was to me, and I think would have been to every man of ordinarily well-trained

human and Christian feeling—I do not say merely worth the whole six months of my previous journey in Italy;—it was a reward for the endurance and horror of the six months' previous journey; but, as many here may not know what the place itself is like, and may think I am making too much of a little pleasant bell-ringing, I must tell you what the valley of Cluse is in itself.

10. Of 'Cluse,' the closed valley,—not a ravine, but a winding plain, between very great mountains, rising for the most part in cliffs—but cliffs which retire one behind the other above slopes of pasture and forest. (Now as I am writing this passage in a country parsonage—of Cowley, near Uxbridge,—I am first stopped by a railroad whistle two minutes and a half long,* and then by the rumble and grind of a slow train, which prevents me from hearing my own words, or being able to think, so that I must simply wait for ten minutes, till it is past.)

It being past, I can go on. Slopes of pasture and forest, I said, mingled with arable land, in a way which you can only at present see in Savoy; that is to say, you have walnut and fruit trees of great age, mixed with oak, beech, and pine, as they all choose to grow—it seems as if the fruit trees planted themselves as freely as the pines. I imagine this to be the consequence of a cultivation of very ancient date under entirely natural laws; if a plum-tree or a walnut planted itself, it was allowed to grow; if it came in the way of anything or anybody, it would be cut down; but on the whole the trees grew as they liked; and the fields were cultivated round them in such spaces as the rocks left;—plowed, where the level admitted, with a plowshare lightly constructed, but so huge that it looks more like the beak of a trireme than a plow, two oxen forcing it to heave aside at least two feet depth of the light earth;—no fences anywhere; winding field walks, or rock paths, from cottage to cottage; these last not of the luxurious or trim Bernese type, nor yet

* Counted by watch, for I knew by its manner it would last, and measured it.

comfortless châteaux; but sufficient for orderly and virtuous life: in outer aspect, beautiful exceedingly, just because their steep roofs, white walls, and wandering vines had no pretense to perfectness, but were wild as their hills. All this pastoral country lapped into inlets among the cliffs, vast belts of larch and pine cresting or crowding the higher ranges, whose green meadows change as they rise, into mossy slopes, and fade away at last among the gray ridges of rock that are soonest silvered with autumnal snow.

11. The ten-miles' length of this valley, between Cluse and St. Martin's, include more scenes of pastoral beauty and mountain power than all the poets of the world have imagined; and present more decisive and trenchant questions respecting mountain structure than all the philosophers of the world could answer: yet the only object which occupies the mind of the European traveling public respecting it, is to get through it, if possible, under the hour.

12. I spoke with sorrow, deeper than my words attempted to express, in my first Lecture, of the blind rushing of our best youth through the noblest scenery of the Alps, without once glancing at it, that they might amuse, or kill, themselves on their snow. That the claims of all sweet pastoral beauty, of all pious domestic life, for a moment's pause of admiration or sympathy, should be unfelt, in the zest and sparkle of boy's vanity in summer play, may be natural at all times; and inevitable while our youth remain ignorant of art, and defiant of religion; but that, in the present state of science, when every eye is busied with the fires in the Moon and the shadows in the Sun, no eye should occupy itself with the ravines of its own world, nor with the shadows which the sun casts on the cliffs of them; that the simplest,—I do not say problems, but bare facts, of structure,—should still be unrepresented, and the utmost difficulties of rock history untouched; while dispute, and babble, idler than the chafed pebbles of the wavering beach, clink, jar, and jangle on from year to year in vain,—surely this, in our great University, I am bound to declare to be blameful, and to ask you, with

more than an artist's wonder, why this fair valley of Cluse is now closed, indeed, and forsaken, "clasped like a missal shut where Paynims pray;" and, with all an honest inquirer's indignation, to challenge—in the presence of our Master of Geology, happily one of its faithful and true teachers,* the Speakers concerning the Earth,—the geologists, not of England only, but of Europe and America,—either to explain to you the structure or sculpture of this † renownedest cliff in all the Alps, under which Tell leaped ashore; or to assign valid reason for the veins in the pebbles which every Scotch lassie wears for her common jewelry.

* Mr. Prestwich. I have to acknowledge, with too late and vain gratitude, the kindness and constancy of the assistance given me, on all occasions, when I asked it, by his lamented predecessor in the Oxford Professorship of Geology, Mr. Phillips.

† The cliff between Fluelen and Brunnen, on the lake of Uri, of which Turner's drawing was exhibited at this lecture.

CHAPTER VI.

OF BUTTER AND HONEY.

1. THE last chapter, being properly only a continuation of the postscript to the fourth, has delayed me so long from my question as to ice-curves, that I cannot get room for the needful diagrams and text in this number: which is perhaps fortunate, for I believe it will be better first to explain to the reader more fully why the ascertainment of this curve of vertical motion is so desirable.

To which explanation, very clear definition of some carelessly used terms will be essential.

2. The extremely scientific Professor Tyndall always uses the terms Plastic, and Viscous, as if they were synonymous. But they express entirely different conditions of matter. The first is the term proper to be used of the state of butter, on which you can stamp whatever you choose; and the stamp will stay; the second expresses that of honey, on which you can indeed stamp what you choose; but the stamp melts away forthwith.

And of viscosity itself there are two distinct varieties—one glutinous, or gelatinous, like that of treacle or tapioca soup; and the other simply adhesive, like that of mercury or melted lead.

And of both plasticity and viscosity there are infinitely various degrees in different substances, from the perfect and absolute plasticity of gold, to the fragile, and imperfect, but to man more precious than any quantity of gold, plasticity of clay, and, most precious of all, the blunt and dull plasticity of dough; and again, from the vigorous and binding viscosity of stiff glue, to the softening viscosity of oil, and tender viscosity of old wine. I am obliged therefore to ask

my readers to learn, and observe very carefully in our future work, these following definitions.

Plastic.—Capable of change of form under external force, without any loss of continuity of substance; and of *retaining afterwards the form imposed on it.*

Gold is the most perfectly plastic substance we commonly know; clay, butter, etc., being more coarsely and ruggedly plastic, and only in certain consistencies or at certain temperatures.

Viscous.—Capable of change of form under external force, *but not of retaining the form imposed;* being languidly obedient to the force of gravity, and necessarily declining to the lowest possible level,—as lava, treacle, or honey.

Ductile.—Capable of being extended by traction without loss of continuity of substance. Gold is both plastic and ductile; but clay, plastic only, not ductile; while most melted metals are ductile only, but not plastic.

Malleable.—Plastic only under considerable force.

3. We must never let any of these words entangle, as necessary, the idea belonging to another.

A plastic substance is not necessarily ductile, though gold is both; a viscous substance is not necessarily ductile, though treacle is both; and the quality of elasticity, though practically inconsistent with the character either of a plastic body, or a viscous one, may enter both the one and the other as a gradually superadded or interferent condition, in certain states of congelation; as in india-rubber, glass, sealing-wax, asphalt, or basalt.

I think the number of substances I have named in this last sentence, and the number of entirely different states which in an instant will suggest themselves to you, as characteristic of each, at, and above, its freezing or solidifying point, may show at once how careful we should be in defining the notion attached to the words we use; and how inadequate, without specific limitation and qualification, *any* word must be, to express all the qualities of any given substance.

4. But, above all substances that can be proposed for definition of quality, glacier ice is the most defeating. For it is practically plastic; but *actually* viscous;—and that to the full extent. You can beat or hammer it, like gold; and it will stay in the form you have beaten it into, for a time;—and so long a time, that, on all instant occasions of plasticity, it is practically plastic. But only have patience to wait long enough, and it will run down out of the form you have stamped on it, as honey does, so that, actually and inherently, it is viscous, and not plastic.

5. Here then, at last, I have got Forbes's discovery and assertion put into accurately intelligible terms;—very incredible terms, I doubt not, to most readers.

There is not the smallest hurry, however, needful in believing them: only let us understand clearly what it is we either believe or deny; and in the meantime, return to our progressive conditions of snow on the simplest supposable terms, as shown in my first plate.

6. On a conical mountain, such as that represented in Fig. 6, we are embarrassed by having to calculate the subtraction by avalanche down the slopes. Let us therefore take rather, for examination, a place where the snow can lie quiet.

Let Fig. 7, Plate I., represent a hollow in rocks at the summit of a mountain above the line of perpetual snow, the lowest watershed being at the level indicated by the dotted line. Then the snow, once fallen in this hollow, can't get out again; but a little of it is taken away every year, partly by the heat of the ground below, partly by surface sunshine and evaporation, partly by filtration of water from above, while it is also saturated with water in thaw-time, up to the level of watershed. Consequently it must subside every year in the middle; and, as the mass remains unchanged, the same quantity must be added every year at the top,—the excess being always, of course, blown away, or dropped off, or thawed above, in the year it falls.

7. Hence the entire mass will be composed, at any given time, of a series of beds somewhat in the arrangement given

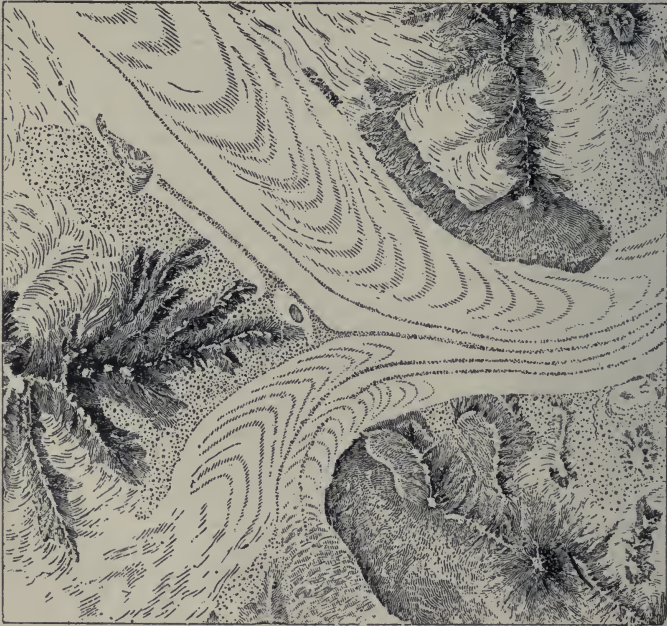
in Fig. 8; more remaining of each year's snow in proportion to its youth, and very little indeed of the lowest and oldest bed.

It *must* subside, I say, every year;—but how much is involved, of new condition, in saying this! Take the question in the simplest possible terms; and let Fig. 9 represent a cup or crater full of snow, level in its surface at the end of winter. During the summer, there will be large superficial melting; considerable lateral melting by reverberation from rock, and lateral drainage; bottom melting from ground heat, not more than a quarter of an inch,—(Forbes's Travels, page 364,)—a quantity which we may practically ignore. Thus the mass, supposing the substance of it immovable in position, would be reduced by *superficial* melting during the year to the form approximately traced by the dotted line within it, in Fig. 9.

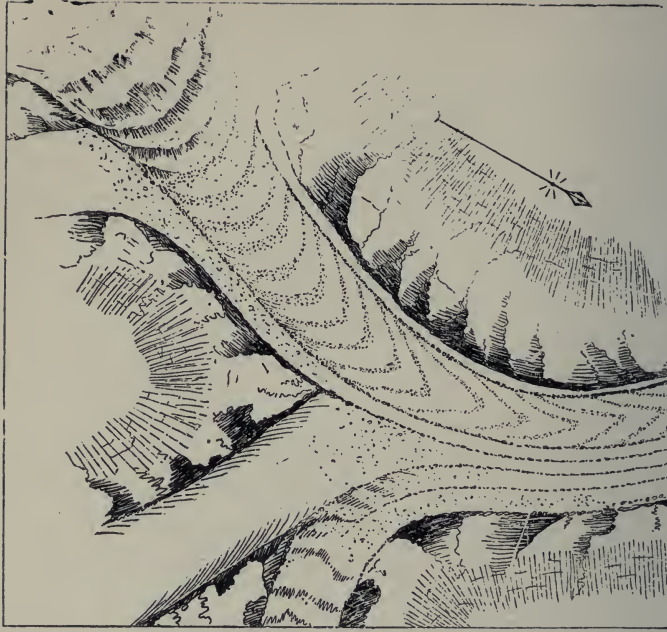
8. But how of the *interior* melting? Every interstice and fissure in the snow, during summer, is filled either with warm air, or warm water in circulation through it, and every separate surface of crystal is undergoing its own degree of diminution. And a constant change in the conditions of equilibrium results on every particle of the mass; and a constant subsidence takes place, involving an entirely different relative position of every portion of it at the end of the year.

9. But I cannot, under any simple geometrical figure, give an approximation to the resultant directions of change in form; because the density of the snow must be in some degree proportioned to the depth, and the melting less, in proportion to the density.

Only at all events, towards the close of the year, the mass inclosed by the dotted line in Fig. 9 will have sunk into some accommodation of itself to the hollow bottom of the crater, as represented by the continuous line in Fig. 10. And, over that, the next winter will again heap the snow to the cup-brim, to be reduced in the following summer; but now through two different states of consistence, to the bulk limited by the dotted line in Fig. 10.



Forbes 1845.



Tyndall, 1860.

Plate II

The Progress of Modern Science in Glacier Survey.

10. In a sequence of six years, therefore, we shall have a series of beds approximately such as in Fig. 11;—approximately observe, I say always, being myself wholly unable to deal with the complexities of the question, and only giving the diagram for simplest basis of future investigation, by the first man of mathematical knowledge and practical common sense, who will leave off laboring for the contradiction of his neighbors, and apply himself to the hitherto despised toil of the ascertainment of facts. And when he has determined what the positions of the strata will be in a perfectly uniform cup, such as that of which the half is represented in perspective in Fig. 12, let him next inquire what would have happened to the mass, if, instead of being deposited in a cup inclosed, on all sides, it had been deposited in an amphitheater open on one, as in the section shown in Fig. 12. For that is indeed the first radical problem to be determined respecting glacier motion.

Difficult enough, if approached even with a clear head, and open heart; acceptant of all help from former observers, and of all hints from nature and heaven; but very totally insoluble, when approached by men whose poor capacities for original thought are unsteadied by conceit, and paralyzed by envy.

11. In my second plate, I have given, side by side, a reduction, to half-scale, of part of Forbes's exquisite chart of the Mer de Glace, published in 1845, from his own survey made in 1842; and a reproduction, approximately in facsimile, of Professor Tyndall's wood-cut, from his own 'eye-sketch' of the same portion of the glacier "as seen from the cleft station, Trélaporte," published in 1860.*

That Professor Tyndall is unable to draw anything as seen from anywhere, I observe to be a matter of much self-congratulation to him; such inability serving farther to

* 'Glaciers of the Alps,' p. 369. Observe also that my engraving, in consequence of the reduced scale, is grievously inferior to Forbes's work; but quite effectually and satisfactorily reproduces Professor Tyndall's, of the same size as the original.

establish the sense of his proud position as a man of science, above us poor artists, who labor under the disadvantage of being able with some accuracy to see, and with some fidelity to represent, what we wish to talk about. But when he found himself so resplendently inartistic, in the eye-sketch in question, that the expression of his scientific vision became, for less scientific persons, only a very bad map, it was at least incumbent on his Royally-social Eminence to ascertain whether any better map of the same places had been published before. And it is indeed clear, in other places of his book, that he was conscious of the existence of Forbes's chart; but did not care to refer to it on this occasion, because it contained the correction of a mistake made by Forbes in 1842, which Professor Tyndall wanted, himself, to have the credit of correcting; leaving the public at the same time to suppose it had never been corrected by its author.

12. This manner, and temper, of reticence, with its relative personal loquacity, is not one in which noble science can be advanced; or in which even petty science can be increased. Had Professor Tyndall, instead of seeking renown by the exposition of Forbes's few and minute mistakes, availed himself modestly of Forbes's many and great discoveries, ten years of arrest by futile discussion and foolish speculation might have been avoided in the annals of geology; and assuredly it would not have been left for a despised artist to point out to you, this evening, the one circumstance of importance in glacier structure which Forbes has not explained.

13. You may perhaps have heard I have been founding my artistic instructions lately on the delineation of a jam-pot. Delighted by the appearance of that instructive object, in the Hôtel du Mont Blanc, at St. Martin's, full of Chamouni honey, of last year, stiff and white, I found it also gave me command of the best possible material for examination of glacial action on a small scale.

Pouring a little of its candied contents out upon my plate, by various tilting of which I could obtain any rate of motion I wished to observe in the viscous stream; and incumbering

the sides and center of the said stream with magnificent moraines composed of crumbs of toast, I was able, looking alternately to table and window, to compare the visible motion of the mellifluous glacier, and its transported toast, with a less traceable, but equally constant, motion of the glacier of Bionnassay, and its transported granite. And I thus arrived at the perception of the condition of glacial structure, which though, as I told you just now, not, I believe, hitherto illustrated, it is entirely in your power to illustrate for yourselves in the following manner.

14. If you will open a fresh pot of honey to-morrow at breakfast, and take out a good tablespoonful of it, you will see, of course, the surface generally ebb in the pot. Put the tablespoonful back in a lump at one side, and you will see the surface generally flow in the pot. The lump you have put on at the side does not diffuse itself over the rest; but it sinks into the rest, and the entire surface rises round it, to its former level.

Precisely in like manner, every pound of snow you put on the top of Mont Blanc, eventually makes the surface of the glaciers rise at the bottom.*

15. That is not impulsive action, mind you. That is mere and pure viscous action—the communication of force equally in every direction among slowly moving particles. I once thought that this force might also be partially elastic, so that whereas, however vast a mass of honey you had to deal with,—a Niagara of honey,—you never could get it to leap like a sea-wave at rocks, ice might yet, in its fluency, retain this power of leaping; only slowly,—taking a long time to rise, yet obeying the same mathematic law of impulse as a sea-breaker; but ascending through eras of surge, and communicating, through eras, its recoil. The little ripple of the stream breaks on the shore,—quick, quick, quick. The Atlantic wave slowly uplifts itself to its plunge, and slowly appeases its thunder. The ice wave—if there be one—would be to the Atlantic wave as the ocean is to the brook.

* Practically hyperbolic expression, but mathematically true.

If there be one! The question is of immense—of vital—importance, to that of glacier action on crag: but, before attacking it, we need to know what the lines of motion are,—first, in a subsiding tablespoonful of honey; secondly, in an uprearing Atlantic wave; and, thirdly, in the pulsatory festoons of a descending cataract, obtained by the *relaxation* of its mass, while the same pulsatory action is displayed, as unaccountably, by a glacier cataract* in the *compression* of its mass.

And, on applying to learned men in Oxford and Cambridge † for elucidation of these modes of motion, I find that, while they can tell me everything I don't want to know, about the collision and destruction of planets, they are not entirely clear on the subject either of the diffusion of a drop of honey from its comb, or the confusion of a rivulet among its cresses. Of which difficult matters, I will therefore reserve inquiry to another chapter; anticipating, however, its conclusions, for the reader's better convenience, by the brief statement, that glacier ice has no power of springing whatever;—that it cannot descend into a rock-hollow, and sweep out the bottom of it, as a cascade or a wave can; but must always sluggishly fill it to the brim before flowing over; and accumulate, beneath, under dead ice, quiet as the depths of a mountain tarn, the fallen ruins of its colossal shore.

* Or a stick of sealing-wax. Warm one at the fire slowly through; and bend it into the form of a horseshoe. You will then see, through a lens of moderate power, the most exquisite facsimiles of glacier fissure produced by extension, on its convex surface, and as faithful image of glacier surge produced by compression, on its concave one.

In the course of such extension, the substance of the ice is actually expanded, (see above, Chap. IV., § 7,) by the widening of every minute fissure; and in the course of such compression, reduced to apparently solid ice, by their closing. The experiments both of Forbes and Agassiz appear to indicate that the original fissures are never wholly effaced by compression; but I do not myself know how far the supposed result of these experiments may be consistent with ascertained phenomena of regelation.

† I have received opportune and kind help, from the other side of the Atlantic waves, in a study of them by my friend Professor Rood.

CHAPTER VII.

THE IRIS OF THE EARTH.

Lecture given at the London Institution, February 17th and March 28th, 1876,—the subject announced being, "AND THE GOLD OF THAT LAND IS GOOD : THERE IS BDELLIUM AND THE ONYX STONE."*

1. THE subject which you permit me the pleasure of illustrating to you this evening, namely, the symbolic use of the colors of precious stones in heraldry, will, I trust, not interest you less because forming part both of the course of education in art which I have been permitted to found in Oxford; and of that in physical science, which I am about to introduce in the Museum for working men at Sheffield.

I say 'to introduce,' not as having anything novel to teach, or show; for in the present day I think novelty the worst enemy of knowledge, and my introductions are only of things forgotten. And I am compelled to be pertinaciously—it might even seem, insolently,—separate in effort from many who would help me, just because I am resolved that no pupil of mine shall see anything, or learn, but what the consent of the past has admitted to be beautiful, and the experience of the past has ascertained to be true. During the many thousand years of this world's existence, the persons living upon it have produced more lovely things than any of us can ever see; and have ascertained more profitable things than any of us can ever know. Of these infinitely existing beautiful things, I show to my pupils as many as they can thoroughly see,—not more; and of the natural facts which are positively known, I urge them to know as many as they

* The abrupt interpolation of this lecture in the text of Deucalion is explained in the next chapter.

can thoroughly know,—not more; and absolutely forbid all debate whatsoever. The time for debate is when we have become masters—not while we are students. And the wisest of masters are those who debate least.

2. For my own part—holding myself nothing better than an advanced student, guiding younger ones,—I never waste a moment of life in dispute, or discussion. It is at least ten years since I ceased to speak of anything but what I had ascertained; and thus becoming, as far as I know, the most practical and positive of men, left discourse of things doubtful to those whose pleasure is in quarrel;—content, for my pupils and myself, to range all matters under the broad heads of things certain, with which we are vitally concerned, and things uncertain, which don't in the least matter.

3. In the working men's museum at Sheffield, then, I mean to place illustrations of entirely fine metal-work, including niello and engraving; and of the stones, and the Flora and Fauna, of Yorkshire, Derbyshire, Durham, and Westmoreland;* together with such foreign examples as may help to the better understanding of what we have at home. But in teaching metal-work, I am obliged to exhibit, not the uses of iron and steel only, but those also of the most precious metals, and their history; and for the understanding of any sort of stones, I must admit precious stones, and their history. The first elements of both these subjects, I hope it may not be uninteresting to you to follow out with me this evening.

4. I have here, in my right hand, a little round thing, and in my left a little flat one, about which, and the like of them, it is my first business to explain, in Sheffield, what may *positively* be known. They have long been both, to me, subjects of extreme interest; and I do not hesitate to say that I know more about them than most people: but that, having learned what I can, the happy feeling of wonder is always increasing upon me—how little that is! What an utter mystery both the little things still are!

5. This first—in my right hand—is what we call a

* Properly, Westmereland, the district of Western Meres.

‘pebble,’* or rolled flint, presumably out of Kensington gravel-pits. I picked it up in the Park,—the first that lay loose, inside the railings, at the little gate entering from Norfolk Street. I shall send it to Sheffield; knowing that, like the bit of lead picked up by Saadi in the ‘Arabian Nights,’ it will make the fortune of Sheffield, scientifically,—if Sheffield makes the most of it, and thoroughly learns what it is.

6. What it *is*, I say,—you observe;—not merely, what it is *made of*. Anybody—the pitifulest apothecary round the corner, with a beggarly account of empty boxes—can tell you that. It is made of brown stuff called silicon, and oxygen, and a little iron; and so any apothecary can tell what you all who are sitting there are made of:—you, and I, and all of us, are made of carbon, nitrogen, lime, and phosphorus, and seventy per cent. or rather more of water; but then, that doesn’t tell us what we are,—what a child is, or what a boy is,—much less what a man is,—least of all, what supremely inexplicable woman is. And so, in knowing only what it is made of, we don’t know what a flint is.

7. To know what it is, we must know what it can do, and suffer.

That it can strike steel into white-hot fire, but can itself be melted down like water, if mixed with ashes; that it is subject to laws of form one jot of which it cannot violate, and yet which it can continually evade, and apparently disobey; that in the fulfillment of these it becomes pure,—in rebellion against them, foul and base; that it is appointed on our island coast to endure for countless ages, fortifying the sea cliff; and on the brow of that very cliff, every spring, to be dissolved, that the green blades of corn may drink it with the dew;—that in its noblest forms it is still imperfect, and in the meanest, still honorable,—this, if we have rightly learned, we begin to know what a flint is.

8. And of this other thing, in my left hand,—this flat bit of yellow mineral matter,—commonly called a ‘sovereign,’

* 1. A. 1. Sheffield Museum; see Chapter VIII.

not indeed to be picked up so easily as the other—(though often, by rogues, with small pains;)—yet familiar enough to the sight of most of us, and *too* familiar to our thought,—there perhaps are the like inquiries to be put. What is it? What can it do; and for whom? This shape given to it by men, bearing the image of a Cæsar;—how far does this make it a thing which is Cæsar's? the opposed image of a saint, riding against a dragon—how far does this make it a thing which is of Saints? Is its testimony true, or conceivably true, on either side? Are there yet Cæsars ruling us, or saints saving us, to whom it does of right belong?

9. And the substance of it,—not separable, this into others, but a pure element,—what laws are over it, other than Cæsar's; what forms must it take, of its own, in eternal obedience to invisible power, if it escape our human hammer-stroke? How far, in its own shape, or in this, is it itself a Cæsar; inevitable in authority; secure of loyalty, lovable, and meritorious of love? For, reading its past history, we find it has been much beloved, righteously or iniquitously,—a thing to be known the grounds of, surely?

10. Nay, also of this dark and despised thing in my right hand, we must ask that higher question, has it ever been beloved? And finding in its past history that in its pure and loyal forms, of amethyst, opal, crystal, jasper, and onyx, *it* also has been much beloved of men, shall we not ask farther whether it deserves to be beloved,—whether in wisdom or folly, equity or iniquity, we give our affections to glittering shapes of clay, and found our fortunes on fortitudes of stone; and carry down from lip to lip, and teach, the father to the child, as a sacred tradition, that the Power which made us, and preserves, gave also with the leaves of the earth for our food, and the streams of the earth for our thirst, so also the dust of the earth for our delight and possession: bidding the first of the Rivers of Paradise roll stainless waves over radiant sands, and writing, by the word of the Spirit, of the Rocks that it divided, “The gold of that land is good; there also is the crystal, and the onyx stone.”

11. Before I go on, I must justify to you the familiar word I have used for the rare one in the text.

If with mere curiosity, or ambitious scholarship, you were to read the commentators on the Pentateuch, you might spend, literally, many years of life, on the discussions as to the kinds of the gems named in it; and be no wiser at the end than you were at the beginning. But if, honestly and earnestly desiring to know the meaning of the book itself, you set yourself to read with such ordinary help as a good concordance and dictionary, and with fair knowledge of the two languages in which the Testaments have been clearly given to us, you may find out all you need know, in an hour.

12. The word 'bdellium' occurs only twice in the Old Testament: here, and in the book of Numbers, where you are told the manna was of the color or look of bdellium. There, the Septuagint uses for it the word *κρύσταλλος*, crystal, or more properly anything congealed by cold; and in the other account of the manna, in Exodus, you are told that, after the dew round the camp was gone up, "there lay a small round thing—as small as the *hoar-frost* upon the ground." Until I heard from my friend Mr. Tyrwhitt* of the cold felt at night in camping on Sinai, I could not understand how deep the feeling of the Arab, no less than the Greek, must have been respecting the divine gift of the dew,—nor with what sense of thankfulness for miraculous blessing the question of Job would be uttered, "The hoary frost of heaven, who hath gendered it?" Then compare the first words of the blessing of Isaac: "God give thee of the dew of heaven, and of the fatness of earth;" and, again, the first words of the song of Moses: "Give ear, oh ye heavens,—for my speech shall distill as the dew;" and you will see at once why this heavenly food was made to shine clear in the

* See some admirable sketches of traveling in the Peninsula of Sinai, by this writer, in 'Vacation Tourists,' Macmillan, 1864. "I still remember," he adds in a private letter to me, "that the frozen towels stood on their edges as stiff as biscuits. By 11 A.M. the thermometer had risen to 85°, and was still rising."

desert, like an enduring of its dew;—Divine remaining for continual need. Frozen, as the Alpine snow—pure forever.

13. Seize firmly that first idea of the manna, as the type of the bread which is the Word of God;* and then look on for the English word ‘crystal’ in Job, of Wisdom, “It cannot be valued with the gold of Ophir, with the precious *onyx*, or the sapphire: the *gold and the crystal* shall not equal it, neither shall it be valued with pure gold;” in Ezekiel, “firmament of the terrible crystal,” or in the Apocalypse, “A sea of glass, like unto crystal,—water of life, clear as crystal”—“light of the city like a stone most precious, even like a jasper stone, clear as crystal.” Your understanding the true meaning of all these passages depends on your distinct conception of the permanent clearness and hardness of the Rock-crystal. You may trust me to tell you quickly, in this matter, what you may all for yourselves discover if you will read.

14. The three substances named here in the first account of Paradise, stand generally as types—the GOLD of all precious metals; the CRYSTAL of all clear precious stones prized for *luster*; the ONYX of all opaque precious stones prized for *color*. And to mark this distinction as a vital one,—in each case when the stones to be set for the tabernacle-service are named, the onyx is named separately. The Jewish rulers brought “onyx stones, and stones to be set for the ephod, and for the breastplate.”† And the onyx is used thrice, while every other stone is used only once, in the High Priest’s robe; two onyxes on the shoulders bearing the twelve names of the tribes, six on each stone, (Exod. xxviii. 9, 10,) and one in the

* Sir Philip Sidney, in his translation of the ἄρον οὐρανοῦ of the 105th Psalm, completes the entire range of idea.

“Himself, from skies, their hunger to repel,
Candies the grasse with sweete congealed dew.”

† Exod. xxv. 7, xxxv. 27, comparing Job above quoted, and Ezekiel xxviii. 13.

breastplate, with its separate name of one tribe, (Exod. xxviii. 20).

15. A. Now note the importance of this grouping. The Gold, or precious metal, is significant of all that the power of the beautiful earth, gold, and of the strong earth, iron, has done for and against man. How much evil I need not say. How much good is a question I will endeavor to show some evidence on forthwith.

B. The Crystal is significant of all the power that jewels, from diamonds down through every Indian gem to the glass beads which we now make for ball-dresses, have had over the imagination and economy of men and women—from the day that Adam drank of the water of the crystal river to this hour.

How much evil that is, you partially know; how much good, we have to consider.

C. The Onyx is the type of all stones arranged in bands of different colors; it means primarily, nail-stone—showing a separation like the white half-crescent at the root of the finger-nail; not without some idea of its subjection to laws of life. Of these stones, part, which are flinty, are the material used for cameos and all manner of engraved work and *pietra dura*; but in the great idea of banded or belted stones, they include the whole range of marble, and especially alabaster, giving the name to the alabastra, or vases used especially for the containing of precious unguents, themselves more precious;* so that this stone, as best representative of all others, is chosen to be the last gift of men to Christ, as gold is their first; incense with both: at His birth, gold and frankincense; at His death, alabaster and spikenard.

16. The two sources of the material wealth of all nations were thus offered to the King of men in their simplicity. But their power among civilized nations has been owing to their workmanship. And if we are to ask whether the gold and the stones are to be holy, much more have we to ask if

* Compare the "*Nardi parvos onyx*," which was to be Virgil's feast-gift, in spring, to Horace.

the worker in gold, and the worker in stone, are to be conceived as exercising holy function.

17. Now, as we ask of a stone, to know what it is, what it can do, or suffer, so of a human creature, to know what it is, we ask what it can do, or suffer.

So that we have two scientific questions put to us, in this matter: how the stones came to be what *they* are—or the law of Crystallization; and how the jewelers came to be what *they* are—or the law of Inspiration. You see how vital this question is to me, beginning now actually to give my laws of Florentine art in English Schools! How can artists be made artists,—in gold and in precious stones? whether in the desert, or the city?— and if in the city, whether, as at Jerusalem, so also in Florence, Paris, or London?

Must we at this present time, think you, order the jewelers, whom we wish to teach, merely to study and copy the best results of past fashion? or are we to hope that some day or other, if we behave rightly, and take care of our jewels properly, we shall be shown also how to set them; and that, merely substituting modern names for ancient ones, some divine message will come to our craftsmen, such as this: ‘ See, I have called by name Messrs. Hunt and Roskell, and Messrs. London and Ryder, and I have filled them with the Spirit of God, in wisdom and in understanding, and in all manner of workmanship, to work in gold, and in silver, and in brass, and in cutting of stones ’ ?

18. This sentence, which, I suppose, becomes startling to your ear in the substitution of modern for ancient names, is the first, so far as I know, distinctly referring to the ancient methods of instruction in the art of jewelry. So also the words which I have chosen for the title (or, as perhaps some of my audience may regretfully think it should be called, the text,) of my lecture, are the first I know that give any account of the formation or existence of jewels. So that the same tradition, whatever its value, which gave us the commands we profess to obey for our moral law, implies also the necessity of inspired instruction for the proper practice

of the art of jewelry; and connects the richness of the earth in gold and jewels with the pleasure of Heaven that we should use them under its direction. The scientific mind will of course draw back in scorn from the idea of such possibility; but then, the scientific mind can neither design, itself, nor perceive the power of design in others. And practically you will find that all noble design in jewelry whatsoever, from the beginning of the world till now, has been either instinctive,—done, that is to say, by tutorship of nature, with the innocent felicity and security of purely animal art, —Etruscan, Irish, Indian, or Peruvian gold being interwoven with a fine and unerring grace of industry, like the touch of the bee on its cell and of the bird on her nest,—or else, has been wrought into its finer forms, under the impulse of religion in sacred service, in crosier, chalice, and lamp; and that the best beauty of its profane service has been debased from these. And the three greatest masters of design in jewelry, the ‘facile principes’ of the entire European School, are—centrally, the one who definitely worked always with appeal for inspiration—Angelico of Fésolle; and on each side of him, the two most earnest reformers of the morals of the Christian Church—Holbein, and Sandro Botticelli.

19. I have first answered this, the most close home of the questions,—how men come to be jewelers. Next, how do stones come to be jewels? It seems that by all religious, no less than all profane, teaching or tradition, these substances are asserted to be precious,—useful to man, and sacred to God. Whether we have not made them deadly instead of useful,—and sacrificed them to devils instead of God,—you may consider at another time. To-night, I would examine only a little way the methods in which they are prepared by nature, for such service as they are capable of.

20. There are three great laws by which they, and the metals they are to be set in, are prepared for us; and at present all these are mysteries to us.

I. The first, the mystery by which “surely there is a

vein for the silver, and a place for the gold whence* they fine it." No geologist, no scientific person whatsoever, can tell you how this gold under my hand was brought into this cleft in the bdellium;† no one knows where it was before, or how it got here: one thing only seems to be manifest—that it was not here always. This white bdellium itself closes rents, and fills hollows, in rocks which had to be rent before they could be rejoined, and hollowed before they could be refilled. But no one hitherto has been able to say where the gold first was, or by what process it came into this its resting-place. First mystery, then,—that there is a vein for the silver, and a place for the gold.

II. The second mystery is that of crystallization; by which, obeying laws no less arbitrary than those by which the bee builds her cell—the water produced by the sweet miracles of cloud and spring freezes into the hexagonal stars of the hoar-frost;—the flint, which can be melted and diffused like water, freezes also, like water, into *these* hexagonal towers of everlasting ice;‡ and the clay, which can be dashed on the potter's wheel as it pleaseth the potter to make it, can be frozen by the touch of Heaven into the hexagonal star of Heaven's own color—the sapphire.

III. The third mystery, the gathering of crystals themselves into ranks or bands, by which Scotch pebbles are made, not only is at present unpierced, but—which is a wonderful thing in the present century—it is even untalked about. There has been much discussion as to the nature of metallic veins; and books have been written with indefatigable industry, and splendid accumulation of facts, on the limits, though never on the methods, of crystallization. But of the structure of banded stones not a word is ever said, and, popularly, less than nothing known; there being many very false notions current respecting them, in the minds even of good mineralogists.

* 'Whence,' not 'where,' they sift or wash it: ὅθεν διηθεύεται, LXX.

† 20. A. 1. Sheffield Museum.

‡ 1. Q. 11. Sheffield Museum.



Plate III.
MURAL AGATES.

And the basis of what I find to be ascertainable about them, may be told with small stress to your patience.

21. I have here in my hand,* a pebble which used to decorate the chimneypiece of the children's playroom in my aunt's house at Perth, when I was seven years old, just half a century ago; which pebble having come out of the hill of Kinnoull, on the other side of the Tay, I show you because I know so well where it came from, and can therefore answer for its originality and genuineness.

22. The hill of Kinnoull, like all the characteristic crags or crags of central Scotland, is of a basaltic lava—in which, however, more specially than in most others, these balls of pebble form themselves. And of these, in their first and simplest state, you may think as little pieces of flint jelly, filling the pores or cavities of the rock.

Without insisting too strictly on the analogy—for Nature is so various in her operations that you are sure to be deceived if you ever think one process has been in all respects like another—you may yet in most respects think of the whole substance of the rock as a kind of brown bread, volcanically baked, the pores and cavities of which, when it has risen, are filled with agate or onyx jelly, as the similar pores of a slice of quartern loaf are filled with butter, if the cook has spread it in a hurry.

23. I use this simile with more satisfaction, because, in the course of last autumn, I was making some practical experiments on glacial motion—the substances for experiment being supplied to me in any degree of congelation or regelation which might be required, by the perfectly angelic cook of a country friend, who not only gave me the run of her kitchen, but allowed me to make domical mountains of her best dish-covers, and tortuous valleys of her finest napkins;—under which altogether favorable conditions, and being besides supplied with any quantity of ice-cream and blancmange, in every state of frost and thaw, I got more beautiful results, both respecting glacier motion, and interstratified rocks, than

* 1. A. 8. Sheffield Museum.

a year's work would have reached by unculinary analysis. Keeping, however—as I must to-night—to our present question, I have here a piece of this baked volcanic rock, which is as full of agate pebbles as a plum-pudding is of currants; each of these agate pebbles consisting of a clear green chalcedony, with balls of banded agate formed in the midst, or at the sides of them. This diagram* represents one enlarged.

And you have there one white ball of agate, floating apparently in the green pool, and a larger ball, which is cut through by the section of the stone, and shows you the banded structure in the most exquisite precision.

24. Now, there is no doubt as to the possible formation of these balls in melted vitreous substance as it cools, because we get them in glass itself, when gradually cooled in old glass-houses; and there is no more difficulty in accounting for the formation of round agate balls of this character than for that of common globular chalcedony. But the difficulty begins when the jelly is not allowed to remain quiet, but can run about while it is crystallizing. Then you get glutinous forms that choke cavities in the rock, in which the chalcedony slowly runs down the sides, and forms a level lake at the bottom; and sometimes you get the whole cavity filled with lake poured over lake, the liquid one over the frozen, floor and walls at last incrustated with onyx fit for kings' signets.†

25. Of the methods of engraving this stone, and of its general uses and values in ancient and modern days, you will find all that can interest you, admirably told by Mr. King, in his book on precious stones and gems, to which I owe most of the little I know myself on this subject.

26. To-night, I would only once more direct your attention to that special use of it in the dress of the Jewish High Priest; that while, as one of the twelve stones of the breast-plate, it was engraved like the rest with the name of a single tribe, two larger onyxes were used for the shoulder-studs of

* This drawing is in Sheffield Museum.

† I am obliged to omit here the part of the lecture referring to diagrams. It will be given in greater detail in the subsequent text.

the ephod; and on these, the names of all the twelve tribes were engraved, six upon each. I do not infer from this use of the onyx, however, any preëminence of value, or isolation of symbolism, in the stone; I suppose it to have been set apart for the more laborious piece of engraving, simply because larger surfaces of it were attainable than of true gems, and its substance was more easily cut. I suppose the bearing of the names on the shoulder to be symbolical of the priest's sacrificial office in bearing the guilt and pain of the people; while the bearing of them on the breast was symbolical of his pastoral office in teaching them: but, except in the broad distinction between gem and onyx, it is impossible now to state with any certainty the nature or meaning of the stones, confused as they have been by the most fantastic speculation of vain Jewish writers themselves.

There is no such difficulty when we pass to the inquiry as to the use of these stones in Christian Heraldry, on the breastplate and shield of the Knight; for that use is founded on natural relations of color, which cannot be changed, and which will become of more and more importance to mankind in proportion to the degree in which Christian Knighthood, once proudly faithful to Death, in War, becomes humbly faithful to Life, in Peace.

27. To these natural relations of color, the human sight, in health, is joyfully sensitive, as the ear is to the harmonies of sound; but what healthy sight is, you may well suppose, I have not time to define to-night;—the nervous power of the eye, and its delight in the pure hues of color presented either by the opal, or by wild flowers, being dependent on the perfect purity of the blood supplied to the brain, as well as on the entire soundness of the nervous tissue to which that blood is supplied. And how much is required, through the thoughts and conduct of generations, to make the new blood of our race of children pure—it is for your physicians to tell you, when they have themselves discovered this medicinal truth, that the divine laws of the life of Men cannot be learned in the pain and death of Brutes.

28. The natural and unchangeable system of visible color has been lately confused, in the minds of all students, partly by the pedantry of unnecessary science; partly by the formalism of illiberal art: for all practical service, it may be stated in a very few words, and expressed in a very simple diagram.

There are three primary colors, Red, Blue, and Yellow; three secondary, formed by the union of any two of these; and one tertiary, formed by the union of all three.

If we admitted, as separate colors, the different tints produced by varying proportions of the composing tints, there would of course be an infinite number of secondaries, and a wider infinitude of tertiaries. But tints can be systematically arranged only by the elements of them, not the proportions of those elements. Green is only green, whether there be less or more of blue in it; purple only purple, whether there be less or more of red in it; scarlet only scarlet, whether there be less or more of yellow in it; and the tertiary gray only gray, in whatever proportions the three primaries are combined in it.

29. The diagram used in my drawing schools to express the system of these colors will be found colored in the 'Laws of Fésole':—this figure will serve our present purpose.*

The simple trefoil produced by segments of three circles in contact, is inscribed in a curvilinear equilateral triangle. Nine small circles are set,—three in the extremities of the foils, three on their cusps, three in the angles of the triangle.

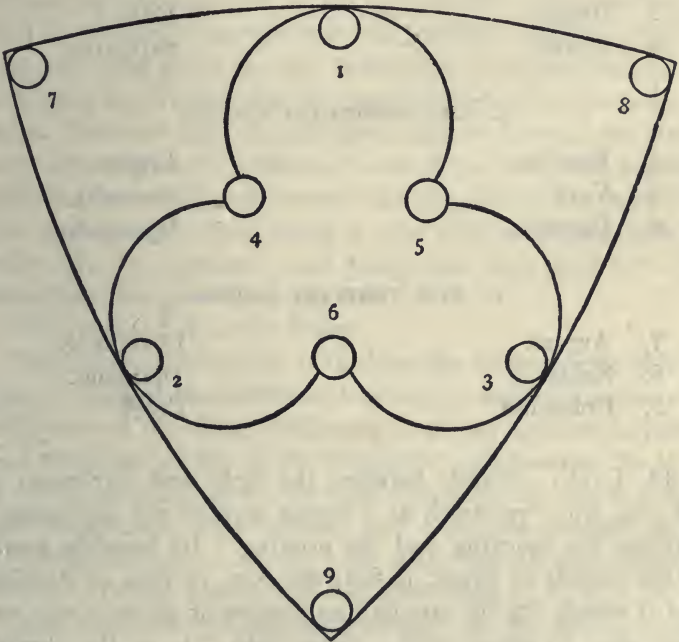
The circles numbered 1 to 3 are colored with the primitive colors; 4 to 6, with the secondaries; 7 with white; 8 with black; and the 9th, with the tertiary, gray.

30. All the primary and secondary colors are capable of infinitely various degrees of intensity or depression: they pass through every degree of increasing light, to perfect

* Readers interested in this subject are sure to be able to enlarge and color it for themselves. I take no notice of the new scientific theories of primary color: because they are entirely false as applied to practical work, natural or artistic. Golden light in blue sky makes green sky; but green sky and red clouds can't make yellow sky.

light, or white; and of increasing shade, to perfect absence of light, or black. And these are essential in the harmony required by sight; so that no group of colors can be perfect that has not white in it, nor any that has not black; or else the abatement or modesty of them, in the tertiary, gray. So that these three form the limiting angles of the field, or cloudy ground of the rainbow. "I do set my bow in the cloud."

And the nine colors of which you here see the essential



group, have, as you know, been the messenger Iris; exponents of the highest purpose, and records of the perfect household purity and honor of men, from the days when Hesiod blazoned the shields of Heracles, to the day when the fighting Téméraire led the line at Trafalgar,—the Victory following her, with three flags nailed to her masts, for fear one should be shot away.

31. The names of these colors in ordinary shields of knight-

hood, are those given below, in the left-hand column. The names given them in blazoning the shields of nobles, are those of the correspondent gems: of heraldry by the planets, reserved for the shields of kings, I have no time to speak, to-night, except incidentally.

A. THE PRIMARY COLORS.

1. Or.	Topaz.
2. Gules.	Ruby.
3. Azure.	Sapphire.

B. THE SECONDARY COLORS.

4. Ecarlate.	Jasper.
5. Vert.	Emerald.
6. Purpure.	Hyacinth.

C. THE TERTIARY COLORS.

7. Argent.	Carbuncle.
8. Sable.	Diamond.
9. Colombin.	Pearl.

32. I. Or. Stands between the light and darkness; as the sun, who "rejoiceth as a strong man to run his course," between the morning and the evening. Its heraldic name, in the shields of kings, is Sol: the Sun, or Sun of Justice; and it stands for the strength and honor of all men who run their race in noble work; whose path "is as the shining light, that shineth more and more unto the perfect day."

For theirs are the works which are to shine before men, that they may glorify our Father. And they are also to shine before God, so that with respect to them, what was written of St. Bernard may be always true: "Opera sancti patris velut Sol in conspectu Dei."

For indeed they are a true light of the world, infinitely more good, in the sight of its Creator, than the dead flame of

its sunshine; and the discovery of modern science, that all mortal strength is from the sun, which has thrown irrational persons into stupid atheism, as if there were no God but the sun, is indeed the accurate physical expression of this truth, that men, rightly active, are living sunshine.

II. Gules, (rose color,) from the Persian word 'gul,' for the rose. It is the exactly central hue between the dark red, and pale red, or wild-rose. It is the color of love, the fulfillment of the joy and of the love of life upon the earth. And it is doubly marked for this symbol. We saw earlier, how the vase given by the Madelaine was precious in its material; but it was also to be indicated as precious in its form. It is not only the substance, but the form of the Greek urn, which gives it nobleness; and these vases for precious perfume were tall, and shaped like the bud of the rose. So that the rosebud itself, being a vase filled with perfume, is called also 'alabastron': and Pliny uses that word for it in describing the growth of the rose.

The stone of it is the Ruby.

III. Azure. The color of the blue sky in the height of it, at noon;—type of the fulfillment of all joy and love in heaven, as the rose-color, of the fulfillment of all joy and love in earth. And the stone of this is the Sapphire; and because the loves of Earth and Heaven are in truth one, the ruby and sapphire are indeed the same stones; and they are colored as if by enchantment,—how, or with what, no chemist has yet shown,—the one azure, and the other rose.

And now you will understand why, in the vision of the Lord of Life to the Elders of Israel, of which it is written, "Also they saw God, and did eat and drink," you are told, "Under His feet was a plinth of sapphire, as it were, the body of Heaven in its clearness."

IV. Ecarlate (scarlet). I use the French word, because all other heraldic words for colors are Norman-French. The ordinary heraldic term here is 'tenné' (tawny); for the later heralds confused scarlet with gules; but the color first meant was the sacred hue of human flesh—Carnation;—in-

carnation: the color of the body of man in its beauty; of the maid's scarlet blush in noble love; of the youth's scarlet glow in noble war; the dye of the earth into which heaven has breathed its spirit: incarnate strength—incarnate modesty.

The stone of it is the Jasper, which as we shall see, is colored with the same iron that colors the human blood; and thus you can understand why on the throne, in the vision of the returning Christ, "He that sat was to look upon like a jasper and a sardine stone."

V. Vert, (viridis,) from the same root as the word 'virtue' and 'virgin,'—the color of the green rod in budding spring; the noble life of youth, born in the *spirit*,—as the scarlet means, the life of noble youth, in *flesh*.* It is seen most perfectly in clear air after the sun has set,—the blue of the upper sky brightening down into it. It is the true color of the eyes of Athena,—Athena Γλαυκῶπις,† looking from the west.

The stone of it is the Emerald; and I must stay for a moment to tell you the derivation of that word.

Anciently, it did not mean our emerald, but a massive green marble, veined apparently by being rent asunder, and called, therefore, the Rent or Torn Rock.

Now, in the central war of Athena with the Giants, the sign of her victory was that the earth was rent, the power of it torn, and the graves of it opened. We know this is written for the sign of a greater victory than hers. And the word which Hesiod uses—the oldest describer of this battle—is twice over the same: the sea roared, the heavens thundered, the earth cried out in being rent, ἐσμαράγησε. From that word you have "the rent rock,"—in Latin, smaragdus; in

* Therefore, the Spirit of Beatrice is dressed in green, over *scarlet*, (not rose;—observe this specially).

"Sovra candido vel, cinta d' oliva
Donna m' apparve sotto verde manto,
Vestita di color di *fiamma* viva."

† Accurately described by Pausanias, 1. xiv., as of the color of a green lake, from the Tritonian pool; compare again the eyes of Beatrice.

Latin dialect, *smaraudus*—softened into *emeraudu*, *emeraude*, *emerald*. And now you see why “there was a rainbow round about the throne in sight like unto an emerald.”

VI. *Purple*. The true purple of the Tabernacle, “blue, purple, and scarlet”—the kingly color, retained afterwards in all manuscripts of the Greek Gospels; therefore known to us absolutely by its constant use in illumination. It is rose color darkened or saddened with blue; the color of love in noble or divine sorrow; borne by the kings, whose witness is in heaven, and their labor on the earth. Its stone is the *Jacinth*, *Hyacinth*, or *Amethyst*,—“like to that sable flower inscribed with woe.”

In these six colors, then, you have the rainbow, or angelic iris, of the light and covenant of life.

But the law of the covenant is, “I do set my bow in the cloud, on the shadow of death—and the ordinance of it.”

And as here, central, is the sun in its strength, so in the heraldry of our faith, the morning and the evening are the first day,—and the last.

VII. *Argent*. Silver, or snow-color; of the hoar-frost on the earth, or the star of the morning.

I was long hindered from understanding the entire group of heraldic colors, because of the mistake in our use of the word ‘carbuncle.’ It is not the garnet, but the same stone as the ruby and sapphire—only crystallized white, instead of red or blue. It is the white sapphire, showing the hexagonal star of its crystallization perfectly; and therefore it becomes an heraldic bearing as a star.

And it is the personal bearing of that Geoffrey Plantagenet, who married Maud the Empress, and became the sire of the lords of England, in her glorious time.

VIII. *Sable*, (*sable*, *sabulum*,) the color of sand of the great hour-glass of the world, outshaken. Its stone is the diamond—never yet, so far as I know, found but in the sand.* It is the symbol at once of dissolution, and of endur-

* Or in rock virtually composed of it.

ance: darkness changing into light—the adamant of the grave.

IX. Gray. (When deep, the second violet, giving Dante's full chord of the seven colors.) The abatement of the light, the abatement of the darkness. Patience, between this which recedes and that which advances; the color of the turtle-dove, with the message that the waters are abated; the color of the sacrifice of the poor,—therefore of humility. Its stone is the Pearl; in Norman heraldry the Marguerite—the lowest on the shield, yet of great price; and because, through this virtue, open first the gates of Paradise, you are told that while the building of the walls of it was of jasper, every several gate was of one pearl.

33. You hear me tell you thus positively,—and without qualification or hesitation,—what these things mean. But mind, I tell you so, after thirty years' work, and that directed wholly to the one end of finding out the truth, whether it was pretty or ugly to look in face of. During which labor I have found that the ultimate truth, the central truth, is always pretty; but there is a superficial truth, or half-way truth, which may be very ugly; and which the earnest and faithful worker has to face and fight, and pass over the body of,—feeling it to be his enemy; but which a careless seeker may be stopped by, and a misbelieving seeker will be delighted by, and stay with, gladly.

34. When I first gave this lecture, you will find the only reports of it in the papers, with which any pains had been taken, were endeavors to make you disbelieve it, or misbelieve it,—that is to say, to make 'mescreoyants' or 'miscreants' of you.

And among the most earnest of these, was a really industrious essay in the 'Daily Telegraph,'—showing evidence that the writer had perseveringly gone to the Heralds' Office and British Museum to read for the occasion; and, I think, deserving of serious notice because we really owe to the proprietors of that journal (who supplied the most earnest of our recent investigators with funds for his Assyrian exca-

vations) the most important heraldic discoveries of the generations of Noah and Nimrod, that have been made since printing took the place of cuneiform inscription.

I pay, therefore, so much respect to the archæologists of Fleet Street as to notice the results of their suddenly stimulated investigations in heraldry.

35. "The lecturer appeared to have forgotten," they said, "that every nation had its own code of symbols, and that gules, or red, is denominated by the French heralds gueules, and is derived by the best French philologers from the Latin 'gula,' the gullet of a beast of prey."

It is perfectly true that the best French philologists do give this derivation; but it is also unfortunately true that the best French philologists are not heralds; and what is more, and worse, all modern heraldry whatsoever is, to the old science, just what the poor gypsy Hayraddin, in 'Quentin Durward,' is to Toison d'Or. But, so far from having 'forgotten,' as the writer for the press supposes I had, that there were knights of France, and Venice, and Florence, as well as England, it so happens that my first studies in heraldry were in *this* manuscript which is the lesson-book of heraldry written for the young Archduke Charles of Austria; and in *this* one, which is a psalter written in the monastery of the Saint Chapelle for St. Louis, King of France; and on the upper page of which, here framed,* you will see written, in letters of gold, the record of the death of his mother, Blanche of Castile, on the 27th of November, next after St. Geneviève's day; and on the under page, between the last lines of the Athanasian Creed, her bearing, the Castilian tower, alternating with the king's,—Azure, semé de France.

36. With this and other such surer authority than was open to the investigation of the press-writer, I will clear up for you his point about the word 'gules.' But I must go a long way back first. I do not know if, in reading the account of the pitching of the standards of the princes of Israel round

* The books referred to, in my rooms at Oxford, are always accessible for examination.

the Tabernacle, you have ever been brought to pause by the singular covering given to the Tabernacle itself,—rams' skins dyed red, and *badgers'* skins. Of rams' skins, of course, any quantity could be had from the flocks, but of badgers', the supply must have been difficult!

And you will find, on looking into the matter, that the so-called badgers' skins were indeed those which young ladies are very glad to dress in at the present day,—seal-skins; and that the meaning of their use in the Tabernacle was, that it might be adorned with the useful service of the *flocks* of the earth and sea: the multitude of the seals then in the Mediterranean being indicated to you both by the name and coinage of the city of Phocæa; and by the attribution of them, to the God Proteus, in the first book of the Odyssey, under the precise term of flocks, to be counted by him as their shepherd.

37. From the days of Moses and of Homer to our own, the traffic in these precious wools and furs, in the Cashmere wool, and the fur, after the seal disappeared, of the gray ermine, (becoming white in the Siberian winter,) has continued: and in the days of chivalry became of immense importance; because the mantle, and the collar fastenings close about the neck, were at once the most useful and the most splendid piece of dress of the warrior nations, who rode and slept in roughest weather, and in open field. Now, these rams' skins, or fleeces, dyed of precious red, were continually called by their Eastern merchants 'the red things,' from the Zoroastrian word 'gul,'—taking the place of the scarlet Chlamydes, which were among the richest wealth of old Rome. The Latin knights could only render the eastern word 'gul,' by *gula*; and so in St. Bernard's red-hot denunciation of these proud red dresses, he numbers, chiefly among them the little red-dyed skins,—*pelliculas rubricatas*,—which they call *gulæ*: "Quas *gulas* vocant." These red furs, for wrist and neck, were afterwards supposed by bad Latinists to be called 'gulæ,' as *throat*-pieces. St. Bernard specifies them, also, in that office: "Even some of the clergy," he says, "have the red skins of weasels hanging from their necks—*dependentes a*

collo ”; this vulgar interpretation of *gula* became more commonly accepted, as intercourse with the East, and chivalric heraldry, diminished; and the modern philologist finally jumps fairly down the lion’s throat, and supposes that the Tyrian purple, which had been the pride of all the Emperors of East and West, was named from a wild beast’s gullet!

38. I do not hold for a mischance, or even for a chance at all, that this particular error should have been unearthed by the hasty studies of the Daily Telegraph. It is a mistake entirely characteristic of the results of vulgar modern analysis; and I have exposed it in detail, that I might very solemnly warn you of the impossibility of arriving at any just conclusions respecting ancient classical languages, of which this heraldry is among the noblest, unless we take pains first to render ourselves *capable of the ideas* which such languages convey. It is perfectly true that every great symbol, as it has, on one side, a meaning of comfort, has on the other one of terror; and if to noble persons it speaks of noble things, to ignoble persons it will as necessarily speak of ignoble ones. Not under one only, but under all, of these heraldic symbols, as there is, for thoughtful and noble persons, the spiritual sense, so for thoughtless and sensual persons, there is the sensual one; and *can* be no other. Every word has only the meaning which its hearer can receive; you cannot express honor to the shameless, nor love to the unloving. Nay, gradually you may fall to the level of having words no more, either for honor or for love:

“There are whole nations,” says Mr. Farrar, in his excellent little book on the families of speech, “people whom no nation now acknowledges as its kinsmen, whose languages, rich in words for all that can be eaten or handled, seem absolutely incapable of expressing the reflex conceptions of the intellect, or the higher forms of the consciousness; whose life seems confined to a gratification of animal wants, with no hope in the future, and no pride in the past. They are for the most part peoples without a literature, and without a history;—peoples whose tongues in some instances have

twenty names for murder, but no name for love, no name for gratitude, no name for God.”

39. The English nation, under the teaching of modern economists, is rapidly becoming one of this kind, which, deliberately living, not in love of God or man, but in defiance of God, and hatred of man, will no longer have in its heraldry, gules as the color of love; but gules only as the color of the throat of a wild beast. That will be the only part of the British lion symbolized by the British flag;—not the lion heart any more, but only the lion gullet.

And if you choose to interpret your heraldry in that modern fashion, there are volumes of instruction open for you everywhere. Yellow shall be to you the color of treachery, instead of sunshine; green, the color of putrefaction, instead of strength; blue, the color of sulphurous hell-fire, instead of sunlit heaven; and scarlet, the color of the harlot of Babylon, instead of the Virgin of God. All these are legitimate readings,—nay, inevitable readings. I said wrongly just now that you might choose what the symbols shall be to you. Even if you would, you cannot choose. They can only reflect to you what you have made your own mind, and can only herald to you what you have determined for your own fate.

40. And now, with safe understanding of the meaning of purple, I can show you the purple and dove-color of St. Mark's, once itself a sea-borne vase of alabaster full of incense of prayers; and a purple manuscript,—floor, walls, and roof blazoned with the scrolls of the gospel.

They have been made a den of thieves, and these stones of Venice here in my hand* are rags of the sacred robes of her

* Portions of the alabaster of St. Mark's torn away for recent restorations. The destruction of the floor of the church, to give work to modern mosaic-mongers, has been going on for years. I cannot bear the pain of describing the facts of it, and must leave the part of the lecture referring to the color of the marbles to be given farther on, in connection with some extracts from my 'Stones of Venice.' The superb drawing, by Mr. Bunney, of the north portico, which illustrated them, together with the alabasters themselves, will be placed in the Sheffield Museum.

Church, sold, and mocked like her Master. They have parted her garments, and cast lots upon her vesture.

41. I return to our question at the beginning: Are we right in setting our hearts on these stones,—loving them, holding them precious?

Yes, assuredly; provided it is the stone we love, and the stone we think precious; and not ourselves we love, and ourselves we think precious. To worship a black stone, because it fell from heaven, may not be wholly wise, but it is half-way to being wise; half-way to worship of heaven itself. Or, to worship a white stone because it is dug with difficulty out of the earth, and to put it into a log of wood, and say the wood sees with it, may not be wholly wise; but it is half-way to being wise; half-way to believing that the God who makes earth so bright, may also brighten the eyes of the blind. It is no true folly to think that stones see, but it *is*, to think that eyes do not; it is no true folly to think that stones live, but it *is*, to think that souls die; it is no true folly to believe that, in the day of the making up of jewels, the palace walls shall be compact of life above their cornerstone,—but it *is*, to believe that in the day of dissolution the souls of the globe shall be shattered with its emerald; and no spirit survive, unterrified, above the ruin.

42. Yes, pretty ladies! love the stones, and take care of them; but love your own souls better, and take care of *them*, for the day when the Master shall make up His jewels. See that it be first the precious stones of the breastplate of justice you delight in, and are brave in; not first the stones, of your own diamond necklaces* you delight in, and are fearful for,

* Do you think there was no meaning of fate in that omen of the diamond necklace; at the end of the days of queenly pride;—omen of another line, of scarlet, on many a fair neck? It was a foul story, you say—slander of the innocent. Yes, undoubtedly, fate meant it to be so. Slander, and lying, and every form of loathsome shame, cast on the innocently fading Royalty. For the corruption of the best is the worst; and these gems, which are given by God to be on the breast of the pure priest, and in the crown of the righteous king, sank into the black gravel of diluvium, under streams of innocent blood.

less perchance the lady's maid miss that box at the station. Get your breastplate of truth first, and every earthly stone will shine in it.

Alas! most of you know no more what justice means, than what jewels mean; but here is the pure practice of it to be begun, if you will, to-morrow.

43. For literal truth of your jewels themselves, absolutely search out and cast away all manner of false, or dyed, or altered stones. And at present, to make quite sure, wear your jewels uncut; they will be twenty times more interesting to you, so. The ruby in the British crown is uncut; and is, as far as my knowledge extends,—I have not had it to look at close,—the loveliest precious stone in the world. And, as a piece of true gentlewoman's and true lady's knowledge, learn to know these stones when you see them, uncut. So much of mineralogy the abundance of modern science may, I think, spare, as a piece of required education for the upper classes.

44. Then, when you know them, and their shapes, get your highest artists to design the setting of them. Holbein, Botticelli, or Angelico, will always be ready to design a brooch for you. Then you will begin to think how to get your Holbein and Botticelli, which will lead to many other wholesome thoughts.

45. And lastly, as you are true in the choosing, be just in the sharing, of your jewels. They are but dross and dust, after all; and you, my sweet religious friends, who are so anxious to impart to the poor your pearls of great price, may surely also share with them your pearls of little price. Strangely (to my own mind at least), you are not so zealous in distributing your estimable rubies, as you are in communicating your *inestimable* wisdom. Of the grace of God, which you can give away in the quantity you think others are in need of, without losing any yourselves, I observe you to be affectionately lavish; but of the jewels of God, if any suggestions be made by charity touching the distribution of *them*, you are apt, in your wisdom, to make answer like the

wise virgins, "Not so, lest there be not enough for us and you."

46. Now, my fair friends, doubtless, if the Tabernacle were to be erected again, in the middle of the Park, you would all be eager to stitch camels' hair for it;—some, to make presents of sealskins to it; and, perhaps, not a few fetch your jewel-cases, offering their contents to the selection of Bezaleel and Aholiab.

But that cannot be, now, with so Crystal-Palace-like entertainment to you. The tabernacle of God is now with men;—*in* men, and women, and sucklings also; which temple ye are, ye and your Christian sisters; of whom the poorest, here in London, are a very undecorated shrine indeed. *They* are the Tabernacle, fair friends, which you have got leave, and charge, to adorn. Not, in anywise, those charming churches and altars which you wreath with garlands for God's sake, and the eloquent clergyman's. You are quite wrong, and barbarous in language, when you call *them* 'Churches' at all. They are only Synagogues;—the very same of which Christ spoke, with eternal meaning, as the places that hypocrites would love to be seen in. Here, in St. Giles's, and the East, sister to that in St. George's and the West, is the Church! raggedly enough "curtained, surely! Let those arches and pillars of Mr. Scott's alone, young ladies; it is *you* whom God likes to see well decorated, not them. Keep your roses for your hair—your embroidery for your petticoats. You are yourselves the Church, dears; and see that you be finally adorned, as women professing godliness, with the precious stones of good works, which may be quite briefly defined, for the present, as decorating the entire Tabernacle; and clothing your poor sisters, with yourselves. Put roses also in *their* hair, put precious stones also on *their* breasts; see that they also are clothed in your purple and scarlet, with other delights; that they also learn to read the gilded heraldry of the sky; and, upon the earth, be taught, not only the labors of it, but the loveliness. For them, also, let the hereditary jewel recall their father's pride, their mother's beauty; so shall

your days, and theirs, be long in the sweet and sacred land which the Lord your God has given you: so, truly, shall **THE GOLD OF THAT LAND BE GOOD, AND THERE, ALSO, THE CRYSTAL, AND THE ONYX STONE.**

[The following text is extremely faint and illegible, appearing to be bleed-through from the reverse side of the page. It contains several lines of text, but the characters are too light to transcribe accurately.]

CHAPTER VIII.

THE ALPHABET.

(Chapter written to introduce the preceding Lecture ; but transposed, that the Lecture might not be divided between two numbers.)

1. SINCE the last sentence of the preceding number of "Deucalion" was written, I have been compelled, in preparing for the arrangement of my Sheffield museum, to look with nicety into the present relations of theory to knowledge in geological science; and find, to my no small consternation, that the assertions which I had supposed beyond dispute, made by the geologists of forty years back, respecting the igneous origin of the main crystalline masses of the primary rocks, are now all brought again into question; and that the investigations of many of the most intelligent observers render many former theories, in their generality, more than doubtful. My own studies of rock structure, with reference to landscape, have led me, also, to see the necessity of retreating to, and securing, the very bases of knowledge in this infinitely difficult science: and I am resolved, therefore, at once to make the series of 'Deucalion' an absolutely trustworthy foundation for the geological teaching in St. George's schools; by first sifting what is really known from what is supposed; and then, out of things known, sifting what may be usefully taught to young people, from the perplexed vanity of prematurely systematic science.

2. I propose, also, in the St. George's Museum at Sheffield, and in any provincial museums hereafter connected with it, to allow space for two arrangements of inorganic substances; one for mineralogists, properly so called, and the

general public; the other for chemists, and advanced students in physical science. The mineralogical collection will be fully described and explained in its catalogue, so that very young people may begin their study of it without difficulty, and so chosen and arranged as to be comprehensible by persons who have not the time to make themselves masters of the science of chemistry, but who may desire some accurate acquaintance with the aspect of the principal minerals which compose the world. And I trust, as I said in the preceding lecture, that the day is near when the knowledge of the native forms and aspects of precious stones will be made a necessary part of a lady's education; and knowledge of the nature of the soils, and the building stones, of his native country, a necessary part of a gentleman's.

3. The arrangement of the chemical collection I shall leave to any good chemist who will undertake it: I suppose that now adopted by Mr. Maskelyne for the mineral collection in the British Museum may be considered as permanently authoritative.

But the mineralogical collection I shall arrange myself, as aforesaid, in the manner which I think likely to be clearest for simple persons; omitting many of the rarer elements altogether, in the trust that they will be sufficiently illustrated by the chemical series; and placing the substances most commonly seen in the earth beneath our feet, in an order rather addressed to the convenience of memory than to the symmetries of classification.

4. In the outset, therefore, I shall divide our entire collection into twenty groups, illustrated each by a separately bound portion of catalogue.

These twenty groups will illustrate the native states, and ordinary combinations, of nine solid oxides, one gaseous element (fluorine), and ten solid elements, placed in the following order:—

1. Silica.
2. Oxide of Titanium.

3. Oxide of Iron.
4. Alumina.
5. Potassa.
6. Soda.
7. Magnesia.
8. Calcium.
9. Glucina.
10. Fluorine.
11. Carbon.
12. Sulphur.
13. Phosphorus.
14. Tellurium.
15. Uranium.
16. Tin.
17. Lead.
18. Copper.
19. Silver.
20. Gold.

5. A few words will show the objects proposed by this limited arrangement. The three first oxides are placed in one group, on account of the natural fellowship and constant association of their crystals.

Added to these, the next group of the alkaline earths will constitute one easily memorable group of nine oxides, out of which, broadly and practically, the solid globe of the earth is made, containing in the cracks, rents, or volcanic pits of it, the remaining eleven substances, variously prepared for man's use, torment, or temptation.

6. I put fluorine by itself, on account of its notable importance in natural mineralogy, and especially in that of Cornwall, Derbyshire, and Cumberland: what I have to say of chlorine and iodine will be arranged under the same head; then the triple group of anomalous substances created for ministry by fire, and the seven-fold group of the great metals, complete the list of substances which must be generally known to the pupils in St. George's schools. The phosphates,

sulphates, and carbonates of the earths, will be given with the earths; and those of the metals, under the metals. The carburets, sulphurets, and phosphurets,* under carbon, sulphur, and phosphorus. Under glucina, given representatively, on account of its importance in the emerald, will be given what specimens may be desirable of the minor or auxiliary earths—baryta, strontia, etc.; and under tellurium and uranium, the auxiliary metals—platinum, columbium, etc., naming them thus together, under those themselves named from Tellus and Uranus. With uranium I shall place the cupreous micas, for their similarity of aspect.

7. The minerals referred to each of those twenty groups will be further divided, under separate letters, into such minor classes as may be convenient, not exceeding twenty: the letters being initial, if possible, of the name of the class; but the letters I and J omitted, that they may not be confused with numerals; and any letter of important sound in the mineral's name substituted for these, or for any other that would come twice over. Then any number of specimens may be catalogued under each letter.

For instance, the siliceous minerals which are the subject of study in the following lecture will be lettered thus:—

- A. Agate.
- C. Carnelian.
- H. Hyalite.
- L. Chalcedony.
- M. Amethyst.
- O. Opal.
- Q. Quartz.
- S. Jasper.

In which list, M is used that we may not have A repeated, and will yet be sufficiently characteristic of Amethyst; and L, to avoid the repetition of C, may stand for Chalcedony;

* I reject the modern term 'sulphide' unhesitatingly. It is as barbarous as 'carbide.'

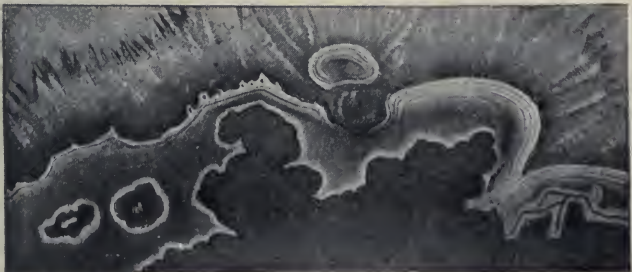
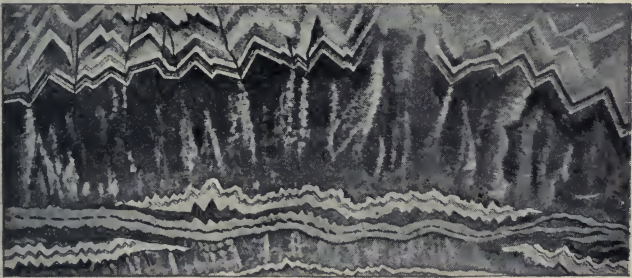
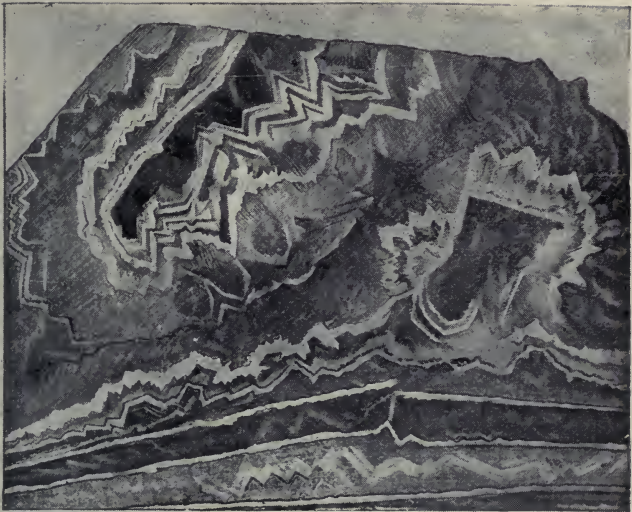


Plate IV.
AMETHYST-QUARTZ,
With Warped Faults in Concretion.

while S, being important in the sound of Jasper, will serve instead of excluded J, or pre-engaged A.

The complete label, then, on any (principally) siliceous mineral will be in such form as these following:—

1 A 1,	meaning	Silica, Agate, No. 1.
1 L 40,	“	Silica, Chalcedony, No. 40.
1 Q 520,	“	Silica, Quartz, No. 520.

8. In many of the classes, as in this first one of Silica, we shall not need all our twenty letters; but there will be a letter A to every class, which will contain the examples that explain the relation and connection of the rest. It happens that in Silica, the agates exactly serve this purpose; and therefore may have A for their proper initial letter. But in the case of other minerals, the letter A will not be the initial of the mineral's name, but the indication of its character, as explanatory of the succeeding series.

Thus the specimen of gold, referred to as 20 A 1 in the preceding lecture, is the first of the series exhibiting the general method of the occurrence of native gold in the rocks containing it; and the complete series in the catalogue will be—

- A. Native Gold, in various geological formations.
- B. Branched Gold.
- C. Crystalline Gold.
- D. Dispersed Gold.
- G. Granulate Gold.
- K. Knitted Gold.
- L. Leaf Gold.
- M. Mossy Gold.
- R. Rolled Gold.

9. It may be at once stated that I shall always retain the word 'branched' for minerals taking either of the forms now called 'arborescent' or 'dendritic.' The advance of educa-

tion must soon make all students feel the absurdity of using the epithet 'tree-like' in Latin, with a different meaning from the epithet 'tree-like' in Greek. My general word 'branched' will include both the so-called 'arborescent' forms (meaning those branched in straight crystals), and the so-called 'dendritic' (branched like the manganese or oxide in Mocha stones;) but with most accurate explanation of the difference; while the term 'spun' will be reserved for the variously thread-like forms, inaccurately now called dendritic, assumed characteristically by native silver and copper.

Of course, thread, branch, leaf, and grain, are all in most cases crystalline, no less definitely than larger crystals; but all my epithets are for practical service, not scientific definition; and I mean by 'crystalline gold' a specimen which distinctly shows octohedric or other specific form; and by 'branched gold' a specimen in which such crystalline forms are either so indistinct or so minute as to be apparently united into groups resembling branches of trees.

10. Every one of the specimens will be chosen for some speciality of character; and the points characteristic of it described in the catalogue; and whatever questions respecting its structure are yet unsolved, and significant, will be submitted in succession, noted each by a Greek letter, so that any given question may be at once referred to. Thus, for instance: question *a* in example 20 G 1 will be the relation of the subdivided or granular condition of crystalline gold to porous states of the quartz matrix. As the average length of description required by any single specimen, chosen on such principle, ought to be at least half a page of my usual type, the distribution of the catalogue into volumes will not seem unnecessary; especially as in due course of time, I hope that each volume will consist of two parts, the first containing questions submitted, and the second, solutions received.

The geological series will be distinguished by two letters instead of one, the first indicating the principal locality of

the formation, or at least that whence it was first named. And I shall distinguish *all* formations by their localities—"M. L., Malham limestone"; "S. S., Skiddaw slate"; etc.,—leaving the geologists to assign systematic or chronological names as they like. What is pliocene to-day may be pleistocene to-morrow; and what is triassic in Mr. A.'s system, tesserassic in Mr. B.'s; but Turin gravels and Warwick sands remain where they used to be, for all that.

These particulars being understood, the lecture which I gave this spring on the general relations of precious minerals to human interests, may most properly introduce us to our detailed and progressive labor; and two paragraphs of it, incidentally touching upon methods of public instruction, may fitly end the present chapter.

11. In all museums intended for popular teaching, there are two great evils to be avoided. The first is, superabundance; the second, disorder. The first is having too much of everything. You will find in your own work that the less you have to look at, the better you attend. You can no more see twenty things worth seeing in an hour, than you can read twenty books worth reading in a day. Give little, but that little good and beautiful, and explain it thoroughly. For instance, here in crystal, you may have literally a thousand specimens, every one with something new in it to a mineralogist; but what is the use of that to a man who has only a quarter of an hour to spare in a week? Here are four pieces—showing it in perfect purity,—with the substances which it is fondest of working with, woven by it into tissues as fine as Penelope's; and one crystal of it stainless, with the favorite shape it has here in Europe—the so-called 'flute beak' of Dauphiné,—let a man once understand that crystal, and study the polish of this plane surface, given to it by its own pure growth, and the word 'crystal' will become a miracle to him, and a treasure in his heart for evermore.

12. Not too much, is the first law; not in disorder, is the second. Any order will do, if it is fixed and intelligible: no system is of use that is disturbed by additions, or difficult

to follow; above all, let all things, for popular use, be *beautifully* exhibited. In our own houses, we may have our drawers and bookcases as rough as we please; but to teach our people rightly, we must make it a true joy to them to see the pretty things we have to show: and we must let them feel that, although, by poverty, they may be compelled to the pain of labor, they need not, by poverty, be debarred from the felicity and the brightness of rest; nor see the work of great artists, or of the great powers of nature, disgraced by commonness and vileness in the manner of setting them forth. Stateliness, splendor, and order are above all things needful in places dedicated to the highest labors of thought: what we willingly concede to the Graces of Society, we must reverently offer to the Muses of Seclusion; and out of the millions spent annually to give attractiveness to folly, may spare at least what is necessary to give honor to Instruction.

CHAPTER IX.

FIRE AND WATER.

1. IN examining any mineral, I wish my pupils first to be able to ascertain easily what it is; then to be accurately informed of what is *known* respecting the processes of its formation; lastly, to examine, with such precision as their time or instruments may permit, the effects of such formation on the substance. Thus, from almost any piece of rock, in Derbyshire, over which spring water has trickled or dashed for any length of time, they may break with a light blow a piece of brown incrustation, which, with little experience, they may ascertain to be carbonate of lime;—of which they may authoritatively be told that it was formed by slow deposition from the dripping water;—and in which, with little strain of sight, they may observe structural lines, vertical to the surface, which present many analogies with those which may be seen in coats of semi-crystalline quartz, or reniform chalcedony:

2. The more accurate the description they can give of the aspect of the stone, and the more authoritative and sifted the account they can render of the circumstances of its origin, the greater shall I consider their progress, and the more hopeful their scientific disposition.

But I absolutely forbid their proceeding to draw any logical inferences from what they know of stalagmite, to what they don't know of chalcedony. They are not to indulge either their reason or their imagination in the feeblest flight beyond the verge of actual experience; and they are to quench, as demoniacal temptation, any disposition they find in themselves to suppose that, because stalagmite and chalcedony

both show lines of structure vertical to reniform surface, both have been deposited in a similar manner from a current solution. They are to address themselves to the investigation of the chalcedony precisely as if no stalagmite were in existence,—to inquire first what it is; secondly, when and how it is *known to be* formed; and, thirdly, what structure is discernible in it,—leaving to the close of their lives, and of other people's, the collection, from evidence thus securely accumulated, of such general conclusions as may then, without dispute, and without loss of time through prejudice in error, manifest themselves, not as 'theories,' but as demonstrable laws.

When, however, for the secure instruction of my thus restrained and patient pupils, I look, myself, for what is actually told me by eye-witnesses, of the formation of mineral bodies, I find the sources of information so few, the facts so scanty, and the connecting paste, or diluvial detritus, of past guesses, so cumbrously delaying the operation of rational diamond-washing, that I am fain, as the shortest way, to set such of my friends as are minded to help me, to begin again at the very beginning; and *reassert*, for the general good, what their eyes can now see, in what their hands can now handle.

3. And as we have begun with a rolled flint, it seems by special guidance of Fors that the friend who has already first contributed to the art-wealth of the Sheffield Museum, Mr. Henry Willett, is willing also to be the first contributor to its scientific treasuries of fact; and has set himself zealously to collect for us the phenomena observable in the chalk and flint of his neighborhood.

Of which kindly industry, the following trustworthy notes have been already the result, which, (whether the like observations have been made before or not being quite immaterial to the matter in hand,) are assuredly themselves original and secure; not mere traditional gossip. Before giving them, however, I will briefly mark their relations to the entire subject of the structure of siliceous minerals.

4. There are a certain number of rocks in the world, which have been seen by human eyes, flowing, white-hot, and watched by human eyes as they cool down. The structure of these rocks is therefore absolutely known to have had something to do with fire.

There are a certain number of other rocks in the world which have been seen by human eyes in a state of wet sand or mud, and which have been watched, as they dried, into substances more or less resembling stone. The structure of these rocks is therefore known to have had something to do with water.

Between these two materials, whose nature is avouched by testimony, there occur an indefinite number of rocks, which no human eyes have ever seen, either hot or muddy; but which nevertheless show curious analogies to the ascertainably cooled substances on the one side, and to the ascertainably dried substances on the other. Respecting these medial formations, geologists have disputed in my ears during the half-century of my audient life; (and had been disputing for about a century before I was born,) without having yet arrived at any conclusion whatever; the book now held to be the principal authority on the subject, entirely contradicting, as aforesaid, the conclusions which, until very lately, the geological world, if it had not accepted as incontrovertible, at least asserted as positive.

5. In the said book, however,—Gustaf Bischof's Chemical Geology,—there are, at last, collected a large number of important and secure facts, bearing on mineral formation: and principles of microscopic investigation have been established by Mr. Sorby, some years ago, which have, I doubt not, laid the foundation, at last, of the sound knowledge of the conditions under which crystals are formed. Applying Mr. Sorby's method, with steady industry, to the rocks of Cumberland, Mr. Clifton Ward has, so far as I can judge, placed the nature of *these*, at least, within the range of secure investigation. Mr. Ward's kindness has induced him also to spare the time needful for the test of the primary

phenomena of agatescent structure in a similar manner; and I am engraving the beautiful drawings he sent me, with extreme care, for our next number; to be published with a letter from him, containing, I suppose, the first serviceable description of agatescent structure yet extant.*

6. Hitherto, however, notwithstanding all that has been accomplished, nobody can tell us how a common flint is made. Nobody ever made one; nobody has ever seen one naturally coagulate, or naturally dissolve; nobody has ever watched their increase, detected their diminution, or explained the exact share which organic bodies have in their formation. The splendid labors of Mr. Bowerbank have made us acquainted with myriads of organic bodies which have provoked siliceous concretion, or become entangled in it: but the beautiful forms which these present have only increased the difficulty of determining the real crystalline modes of siliceous structure, unaffected by organic bodies.

7. Crystalline *modes*, I say, as distinguished from crystalline *laws*. It is of great importance to mineralogy that we should carefully distinguish between the laws or limits which determine the possible angles in the form of a mineral, and the modes, or measures, in which, according to its peculiar nature or circumstances, it conducts itself under these restrictions.

Thus both cuprite and fluor are under laws which enforce cubic or octohedric angles in their crystals; but cuprite can arrange its cubes in fibers finer than those of the softest silk, while fluor spar only under rare conditions distinctly elongates its approximate cube into a parallelopiped.

Again, the prismatic crystals of Wavellite arrange themselves invariably in spherical or reniform concretions; but the rhombohedral crystals of quartz and hematite do so only

* I must, however, refer the reader to the valuable summary of work hitherto done on this subject by Professor Rupert Jones, (Proceedings of Geologists' Association, Vol. IV., No. 7,) for examination of these questions of priority.

under particular conditions, the study of which becomes a quite distinct part of their lithology.

8. This stellar or radiant arrangement is one essential condition in the forms and phenomena of agate and chalcidony; and Mr. Clifton Ward has shown in the paper to which I have just referred, that it is exhibited under the microscope as a prevalent condition in their most translucent substance, and on the minutest scale.

Now all siliceous concretions, distinguishing themselves from the mass of the surrounding rocks, are to be arranged under two main classes; briefly memorable as knots and nuts; the latter, from their commonly oval form, have been usually described by mineralogists as, more specially, 'almonds.'

'Knots' are concretions of silica round some central point or involved substance, (often organic); such knots being usually harder and more solid in the center than at the outside, and having their fibers of crystallization, if visible, shot outwards like the rays of a star, forming pyramidal crystals on the exterior of the knot.

9. 'Almonds' are concretions of silica formed in cavities of rocks, or, in some cases, probably by their own energy producing the cavities they inclose; the fibers of crystallization, if visible, being directed from the outside of the almond-shell towards its interior cavity.

10. These two precisely opposite conditions are severally represented best by a knot of sound black flint in chalk, and by a well-formed hollow agate in a volcanic rock.

I have placed in the Sheffield Museum a block of black flint, formed round a bit of *Inoceramus* shell; and an almond-shell of agate, about six times as big as a cocoanut, which will satisfactorily illustrate these two states. But between the two, there are two others of distinctly gelatinous silica, and distinctly crystalline silica, filling pores, cavities, and veins, in rocks, by infiltration or secretion. And each of these states will be found passing through infinite gradations into some one of the three others, so that separate account has to

be given of every step in the transitions before we can rightly understand the main types.

11. But at the base of the whole subject lies, first, the clear understanding of the way a knot of solid crystalline substance—say, a dodecahedral garnet—forms itself out of a rock-paste, say greenstone trap, without admitting a hair's-breadth of interstice between the formed knot and inclosing paste; and, secondly, clear separation in our thoughts, of the bands or layers which are produced by crystalline segregation, from those produced by successively accumulating substance. But the method of increase of crystals themselves, in an apparently undisturbed solution, has never yet been accurately described; how much less the phenomena resulting from influx of various elements, and changes of temperature and pressure. The frontispiece to the third number of 'Deucalion' gives typical examples of banded structure resulting from pure crystalline action; and the three specimens, 1. A. 21, 22, and 23, at Sheffield, furnish parallel examples of extreme interest. But a particular form of banding in flint, first noticed and described by Mr. S. P. Woodward,* is of more interest than any other in the total obscurity of its origin; and in the extreme decision of the lines by which, in a plurality of specimens, the banded spaces are separated from the homogeneous ones, indicating the first approach to the conditions which produce, in more perfect materials, the forms of, so-called, 'brecciated' agates. Together with these, a certain number of flints are to be examined which present every appearance of having been violently fractured and re-cemented. Whether fractured by mechanical violence, by the expansive or decomponent forces of contained minerals, or by such slow contraction and re-gelation as must have taken place in most veins through masses of rock, we have to ascertain by the continuance of such work as my friend has here begun.

* 'Geological Magazine,' 1864, vol. i., p. 145, pl. vii. and viii.

LETTER I.*—*Introductory.*

12. “ I am beginning to be perplexed about the number of Flints, containing problems and illustrations, and wondering to what extent my inquiries will be of any use to you.

“ I intended at first to collect only what was really beautiful in itself—‘ crystalline ’! but how the subject widens, and how the arbitrary divisions do run into one another! What a paltry shifting thing our classification is! One is sometimes tempted to give it all up in disgust, and I have a shrewd suspicion that all scientific classification (except for mutual aid to students) is absurd and pedantic: (*a*) varieties, species, genera, classes, orders, have most of them more in common than of divergence,—‘ a forming spirit ’ everywhere, for use and beauty.

“ It is (to me) impossible to separate purely mineral and chemical siliceous bodies in chalk, (*b*) from those which are partly formed by the silicate-collecting sponges, which seem to have given them their forms.

“ Who is to say that the radiations and accretions of a crystal are not life, but that the same arrangements in a leaf or a tree are life?—that the clouds which float in their balanced changeableness are not as much guided and defined as the clouds of the chalcedony, or the lenses of the human eye which perceives them?

“ I think the following facts are plain:

“ 1. The chalk bands do go through the flint.

“ 2. Fissures in flints are constantly repaired by fresh deposits of chalcedony and silex.

* I shall put my own notes on these and any future communications I may insert, in small print at the bottom of the pages; and with letter-references—*a*, *b*, etc.; but the notes of the authors themselves will be put at the end of their papers, in large print, and with number-references—1, 2.

(*a*) All, at least, is imperfect; and most of it absurd in the attempt to be otherwise.

(*b*) It may be doubtful if any such exist in chalk; but, if they exist, they will eventually be distinguishable.

deferred, had it not been for the energy and steady devotion of Dr. Acland. Without him—little as you may think it—the great galleries and laboratories of this building, in which you pursue your physical-science studies so advantageously, and so forgetfully of their first advocate, would not yet have been in existence. Nor, after their erection, (if indeed in this there be any cause for your thanks,) would an expositor of the laws of landscape beauty have had the privilege of addressing you under their roof.

179. I am indebted also to one of my Oxford friends, Miss Symonds, for the privilege of showing you, with entire satisfaction, a perfectly good and characteristic drawing by Copley Fielding, of Cader Idris, seen down the vale of Dolgelly; in which he has expressed with his utmost skill the joy of his heart in the aerial mountain light, and the iridescent wildness of the mountain foreground; nor could you see enforced with any sweeter emphasis the truth on which Mr. Morris dwelt so earnestly in his recent address to you—that the excellence of the work is, *cæteris paribus*, in proportion to the joy of the workman.

180. There is a singular character in the coloring of Fielding, as he uses it to express the richness of beautiful vegetation; he makes the sprays of it look partly as if they were strewn with jewels. He is of course not absolutely right in this; to some extent it is a conventional exaggeration—and yet it has a basis of truth which excuses, if it does not justify, this expression of his pleasure; for no color can possibly represent vividly enough the charm of radiance which you can see by looking closely at dew-sprinkled leaves and flowers.

181. You must ask Professor Clifton to explain to you why it is that a drop of water, while it subdues the hue of a green leaf or blue flower into a soft gray, and shows itself therefore on the grass or the dock-leaf as a lustrous dimness, enhances the force of all warm colors, so that you never can see what the color of a carnation or a wild rose really is till you get the dew on it. The effect is, of course, only general-

ized at the distance of a paintable foreground; but it is always in reality part of the emotion of the scene, and justifiably sought in any possible similitude by the means at our disposal.

182. It is with still greater interest and reverence to be noted as a physical truth that in states of joyful and healthy excitement the eye becomes more highly sensitive to the beauty of color, and especially to the blue and red rays, while in depression and disease all color becomes dim to us, and the yellow rays prevail over the rest, even to the extremity of jaundice. But while I direct your attention to these deeply interesting conditions of sight, common to the young and old, I must warn you of the total and most mischievous fallacy of the statements put forward a few years ago by a foreign oculist, respecting the changes of sight in old age. I neither know, nor care, what states of senile disease exist when the organ has been misused or disused; but in all cases of disciplined and healthy sight, the sense of color and form is absolutely one and the same from childhood to death.

183. When I was a boy of twelve years old, I saw nature with Turner's eyes, he being then sixty; and I should never have asked permission to resume the guidance of your schools, unless now, at sixty-four, I saw the same hues in heaven and earth as when I walked a child by my mother's side.

Neither may you suppose that between Turner's eyes, and yours, there is any difference respecting which it may be disputed whether of the two is right. The sight of a great painter is as authoritative as the lens of a camera lucida; he perceives the form which a photograph will ratify; he is sensitive to the violet or to the golden ray to the last precision and gradation of the chemist's defining light and intervalled line. But the veracity, as the joy, of this sensation,—and the one involves the other,—are dependent, as I have said, first on vigor of health, and secondly on the steady looking for and acceptance of the truth of nature as *she* gives it you, and not as you like to have it—to inflate your own

clay, Websterite, and intermediate admixtures of these substances.

4. For veins of flint, formerly horizontal, which show visible signs of displacement by subsidence.

5. For the numerous fissures in these veins of tabular flint being stained by iron, which apparently aids in the further process of splitting up and of widening the minute crevices in the flint. The iron also appears to be infiltrated at varying depths into the body of unfractured flint.

Qy. Has not ordinary flint the power or property of absorbing ferruginous fluid?

LETTER IV.—*Memoranda respecting brecciate flint.*

“ June 7, 1876.

“ I hasten to report the result of my fresh inquiry respecting the specimen I first sent to you as ‘breccia,’ but which you doubted.

“ The site is the embouchure of the little tidal river Cuckmere, about two miles east of Seaford. I found a block at about the same spot (about three hundred yards east of the coastguard station, and about three-quarters of the distance west of the river’s mouth).

“ The rocks are here covered with sand, or with a bed of the old valley alluvium, not yet removed by wave action. Traveling westward, the transported blocks of breccia gradually increase in size, (a pretty sure augury that they were derived from a western source). The whole coast is subject to a very rapid degradation and consequent encroachment of the sea, the average in some places being from twenty-five to thirty feet yearly. At a spot a hundred yards east of the coastguard station, blocks of one or two tons were visible. The denuded chalk rock is of chalk, seamed and fissured; the cliff of the same nature; but all the flints, and especially the tabular veins, are splintered and displaced to an unusual extent.

“ Farther westward yet, the blocks of breccia weigh several

tons, the cement being itself fissured, and in some places consisting of angular fragments stained with iron. From one mass I extracted a hollow circular flint split into four or five pieces, the fragments, although displaced, re-cemented in juxtaposition. (*i*)

“At the Hope Gap, the whole cliff becomes a fractured mass, the fissures being refilled, sometimes with calcareous cement, sometimes with clay, and in other places being hollow.

“From the sides of an oblique fissure filled with clay I extracted two pieces of a nodular flint, separated from each other by a two-inch seam of clay: when replaced (the clay having been removed) the two fitted exactly. An examination of the rocks shows that the fissures, which run in all directions, are largest when *nearly horizontal*, dipping slightly seawards.

“The upper and lower portions of some of these horizontal fissures are banded with iron stains, evidently derived from iron-water percolating the seams.

“If I am right, therefore, the mystery seems to be explained thus: (*k*)—

“I. Rain water, charged with carbonic acid, falling on the hills behind, trickles past the grass and humus beneath, through the cracks in the chalk, dissolving the carbonate of lime into a soluble bi-carbonate. Falling downwards, it escapes seawards through the horizontal fissures, widening them by its solvent power.

“II. The weight of the superincumbent mass by slow, certain, irregular pressure, descends, maintaining the contact of surfaces, but still ever sinking at intervals, varied by the resisting forces of weight and pressure.

(*i*) I am not prepared to admit, yet, that any of these phenomena are owing to violence. We shall see.

(*k*) I think this statement of Mr. Willett's extremely valuable; and see no reason to doubt its truth, as an explanation of the subsidence of chalk and limestone in certain localities. I do not hitherto receive it as any explanation of fracture in flints. I believe Dover Cliffs might sink to Channel bottom without splitting a flint, unless bedded.

“ III. This process is probably accelerated by the inflow and reflow of salt water at the ebb and flow of tide (into the fissures).

“ IV. At certain periods, probably in the summer, (as soluble bi-carbonate of lime becomes less soluble as temperature increases,) a portion becomes re-deposited as a hard semi-crystalline calcareous cement.

“ V. This cement appears, in some instances, to be slightly siliceous, and may have a tendency, by the mutual attraction of siliceous matter, to form solid layers of tabular flint.

“ VI. If these deductions be correct, it is probable that the great results involved in the sinking of limestone hills, and the consequent encroachment of the sea, may be traced (step by step) to the springs in valleys ‘ which run among the hills; ’ thence to the rain and dewdrops: higher up to the mists and clouds; and so onward, by solar heat, to the ocean, where at last again they find their rest.”

LETTER V.—*Final Abstract.*

“ June 13, 1876.

“ In addition to the heat derived from summer and atmospheric changes, there will be a considerable amount of heat evolved from the friction produced between the sides of fissures when slipping and subsidence occur, and from the crushing down of flint supports when weight overcomes resistance.

“ After heavy rainfall—

1. Fissures are filled.
2. Solution is rapid.
3. Hydraulic pressure increases.
4. Fissures are widened.

“ After a period of dry weather—

1. Solution is diminished.
2. Hydraulic pressure relieved.
3. Subsidence and flint-crushing commence, or progress more rapidly.

4. Heat is evolved.
5. Carbonic acid discharged.
6. Semi-crystalline carbonate of lime is deposited around.
 - a. Fragments of crushed flint, (at rest at intermitting intervals between motion of rocks).
 - b. Angular fragments of original chalk rock.
 - c. Angular fractured pieces of old cement.

“I have a dawning suspicion that siliceous deposits (as chalcedony, etc.) are made when the temperature falls, for reasons which I must postpone to a future paper.”

(1) Probably the same arrangement exists (concentric), but has not been made visible because the iron has not been oxydized.

CHAPTER X.

‘THIRTY YEARS SINCE.’

VILLAGE OF SIMPLON, 2d September, 1876.

1. I AM writing in the little one-windowed room opening from the *salle-à-manger* of the *Hôtel de la Poste*; but under some little disadvantage, being disturbed partly by the invocation, as it might be fancied, of calamity on the heads of nations, by the howling of a frantic wind from the Col; and partly by the merry clattering of the knives and forks of a hungry party in the *salon* doing their best to breakfast adequately, while the diligence changes horses.

In that same room,—a little earlier in the year,—two-and-thirty years ago, my father and mother and I were sitting at one end of the long table in the evening; and at the other end of it, a quiet, somewhat severe-looking, and pale, English (as we supposed) traveler, with his wife; she, and my mother, working; her husband carefully completing some mountain outlines in his sketch-book.

2. Those days are become very dim to me; and I forget which of the groups spoke first. My father and mother were always as shy as children; and our busy fellow-traveler seemed to us taciturn, slightly inaccessible, and even *Alpestre*, and, as it were, hewn out of mountain flint, in his serene labor.

Whether some harmony of Scottish accent struck my father's ear, or the pride he took in his son's accomplishments prevailed over his own shyness, I think we first ventured word across the table, with view of informing the grave draughtsman that *we* also could draw. Whereupon my own sketch-book was brought out, the pale traveler politely permissive. My good father and mother had stopped at

the Simplon for me, (and now, feeling miserable myself in the thin air, I know what it cost them,) because I wanted to climb the high point immediately west of the Col, thinking thence to get a perspective of the chain joining the Fletschhorn to the Monte Rosa. I had been drawing there the best part of the afternoon, and had brought down with me careful studies of the Fletschhorn itself, and of a great pyramid far eastward, whose name I did not know, but, from its bearing, supposed it must be the Matterhorn, which I had then never seen.

3. I have since lost both these drawings; and if they were given away, in the old times when I despised the best I did, because it was not like Turner, and any friend has preserved them, I wish they might be returned to me; for they would be of value in Deucalion, and of greater value to myself; as having won for me, that evening, the sympathy and help of James Forbes. For his eye grew keen, and his face attentive, as he examined the drawings; and he turned instantly to me as to a recognized fellow-workman,—though yet young, no less faithful than himself.

He heard kindly what I had to ask about the chain I had been drawing; only saying, with a slightly proud smile, of my peak supposed to be the Matterhorn,* “No,—and when once you have seen the Matterhorn, you will never take anything else for it!”

He told me as much as I was able to learn, at that time, of the structures of the chain, and some pleasant general talk followed; but I knew nothing of glaciers then, and he had his evening's work to finish. And I never saw him again.

I wonder if he sees me now, or guided my hand as I cut the leaves of M. Viollet le Duc's 'Massif du Mont Blanc' this morning, till I came to page 58,—and stopped!

I must yet go back, for a little while, to those dead days.

4. Failing of Matterhorn on this side of the valley of the Rhone, I resolved to try for it from the other; and begged my father to wait yet a day for me at Brieg.

* It was the Weisshorn.

No one, then, had ever heard of the Bell Alp; and few English knew even of the Aletsch glacier. I laid my plans from the top of the Simplon Col; and was up at four, next day; in a cloudless morning, climbing the little rock path which ascends directly to the left, after crossing the bridge over the Rhone, at Brieg; path which is quite as critical a little bit of walking as the Ponts of the Mer de Glace; and now, incumbered with the late fallen shatterings of a flake of gneiss of the shape of an artichoke leaf, and the size of the stern of an old ship of the line, which has rent itself away, and dashed down like a piece of the walls of Jericho, leaving exposed, underneath, the undulatory surfaces of pure rock, which, I am under a very strong impression, our young raw geologists take for real "muttoned" glacier tracks.*

5. I took this path because I wanted first to climb the green wooded mass of the hill rising directly over the valley, so as to enfilade the entire profiles of the opposite chain, and length of the valley of the Rhone, from its brow.

By midday I had mastered it, and got up half as high again, on the barren ridge above it, commanding a little tarn; whence, in one panorama are seen the Simplon and Saas Alps on the south, with the Matterhorn closing the avenue of the valley of St. Nicholas; and the Aletsch Alps on the north, with all the lower reach of the Aletsch glacier. This panorama I drew carefully; and slightly colored afterwards, in such crude way as I was then able; and fortunately not having lost this, I place it in the Sheffield Museum, for a perfectly trustworthy witness to the extent of snow on the Breithorn, Fletschhorn, and Montagne de Saas, thirty years ago.

My drawing finished, I ran round and down obliquely to the Bell Alp, and so returned above the gorge of the Aletsch torrent—making some notes on it afterwards used in 'Modern Painters,' many and many such a day of foot and hand labor having been needed to build that book, in which

* I saw this wisely suggested in a recent number of the 'Alpine Journal.'

my friends, nevertheless, I perceive, still regard nothing but what they are pleased to call its elegant language, and are entirely indifferent, with respect to that and all other books they read, whether the elegant language tells them truths or lies.

That book contains, however, (and to-day it is needful that I should not be ashamed in this confidence of boasting,) the first faithful drawings ever given of the Alps, not only in England, but in Europe; and the first definitions of the manner in which their forms have been developed out of their crystalline rocks.

6. 'Definitions' only, observe, and descriptions; but no 'explanations.' I knew, even at that time, far too much of the Alps to theorize on them; and having learned, in the thirty years since, a good deal more, with the only consequence of finding the facts more inexplicable to me than ever, laid M. Viollet le Duc's book on the seat of the carriage the day before yesterday, among other stores and preparations for passing the Simplon, contemplating on its open first page the splendid dash of its first sentence into space,—“*La croute terrestre, refroidie au moment du plissement qui a formé le massif du Mont Blanc,*”—with something of the same amazement, and same manner of the praise, which our French allies are reported to have rendered to our charge at Balaclava:—

“*C'est magnifique;—mais ce n'est pas*”—*la geologie.*

7. I soon had leisure enough to look farther, as the steaming horses dragged me up slowly round the first ledges of pines, under a drenching rain which left nothing but their nearest branches visible. Usually, their nearest branches, and the wreaths of white cloud braided among them, would have been all the books I cared to read; but both curiosity and vanity were piqued by the new utterances, prophetic, apparently, in claimed authority, on the matters timidly debated by me in old time.

I soon saw that the book manifested, in spite of so great false-confidence, powers of observation more true in their

scope and grasp than can be traced in any writer on the Alps since De Saussure. But, alas, before we had got up to Berisal, I had found also more fallacies than I could count, in the author's first statements of physical law; and seen, too surely, that the poor Frenchman's keen natural faculty, and quite splendid zeal and industry, had all been wasted, through the wretched national vanity which made him interested in Mont Blanc only 'since it became a part of France,' and had thrown him totally into the clique of Agassiz and Desor, with results in which neither the clique, nor M. Viollet, are likely, in the end, to find satisfaction.

8. Too sorrowfully weary of bearing with the provincial temper, and insolent errors, of this architectural restoration of the Gothic globe, I threw the book aside, and took up my Carey's Dante, which is always on the carriage seat, or in my pocket—not exactly for reading, but as an antidote to pestilent things and thoughts in general; and store, as it were, of mental quinine,—a few lines being usually enough to recover me out of any shivering marsh fever fit, brought on among foulness or stupidity.

It opened at a favorite old place, in the twenty-first canto of the Paradise, (marked with an M. long ago, when I was reading Dante through to glean his mountain descriptions):—

“ ‘Twixt either shore
Of Italy, nor distant from thy land,” etc. ;

and I read on into the twenty-third canto, down to St. Benedict's

“ There, all things are, as they have ever been ;
Our ladder reaches even to that clime,
Whither the patriarch Jacob saw it stretch
Its topmost round, when it appeared to him
With angels laden. But to mount it now
None lifts his foot from earth ; and hence my rule
Is left a profitless stain upon the leaves.
The walls, for abbey reared, turned into dens ;
The cowls, to sacks choked up with musty meal.

* * * * *

His convent, Peter founded without gold
 Or silver ; I, with prayers and fasting, mine ;
 And Francis, his, in meek humility.
 And if thou note the point whence each proceeds,
 Then look what it hath erred to, thou shalt find
 The white turned murky.

Jordan was turned back,
 And a less wonder than the reflux sea
 May, at God's pleasure, work amendment here."

9. I stopped at this, (holding myself a brother of the third order of St. Francis,) and began thinking how long it would take for any turn of tide by St. George's work, when a ray of light came gleaming in at the carriage window, and I saw, where the road turns into the high ravine of the glacier galleries, a little piece of the Breithorn snowfield beyond.

Somehow, I think, as fires never burn, so skies never clear, while they are watched ; so I took up my Dante again, though scarcely caring to read more ; and it opened, this time, not at an accustomed place at all, but at the " I come to aid thy wish," of St. Bernard, in the thirty-first canto. Not an accustomed place, because I always think it very unkind of Beatrice to leave him to St. Bernard ; and seldom turn expressly to the passage : but it has chanced lately to become of more significance to me, and I read on eagerly, to the " So burned the peaceful oriflamme," when the increasing light became so strong that it awakened me, like a new morning ; and I closed the book again, and looked out.

We had just got up to the glacier galleries, and the last films of rain were melting into a horizontal bar of blue sky which had opened behind the Bernese Alps.

I watched it for a minute or two through the alternate arch and pier of the glacier galleries, and then as we got on the open hill flank again, called to Bernardo* to stop.

10. Of all views of the great mountains that I know in Switzerland, I think this, of the southern side of the Bernese

* Bernardo Bergonza, of the Hôtel d'Italie, Arona, in whom any friend of mine will find a glad charioteer ; and they cannot anywhere find an abler or honest one.

range from the Simplon, in general the most disappointing—for two reasons: the first, that the green mass of their foundation slopes so softly to the valley that it takes away half the look of their height; and the second, that the greater peaks are confused among the crags immediately above the Aletsch glacier, and cannot, in quite clear weather, be recognized as more distant, or more vast. But at this moment, both these disadvantages were totally conquered. The whole valley was full of absolutely impenetrable wreathed cloud, nearly all pure white, only the palest gray rounding the changeful domes of it; and beyond these domes of heavenly marble, the great Alps stood up against the blue,—not wholly clear, but clasped and entwined with translucent folds of mist, traceable, but no more traceable, than the thinnest veil drawn over St. Catherine's or the Virgin's hair by Lippi or Luini; and rising as they were withdrawn from such investiture, into faint oriflammes, as if borne by an angel host far distant; the peaks themselves strewn with strange light, by snow fallen but that moment,—the glory shed upon them as the veil fled;—and intermittent waves of still gaining seas of light increasing upon them, as if on the first day of creation.

“À present, vous pouvez voir l'hôtel sur le Bell Alp, bâti par Monsieur Tyndall.”

The voice was the voice of the driver of the supplementary pair of horses from Brieg, who, just dismissed by Bernardo, had been for some minutes considering how he could best recommend himself to me for an extra franc.

I not instantly appearing favorably stirred by this information, he went on with increased emphasis, “Monsieur le *Professeur* Tyndall.”

The poor fellow lost his bonnemain by it altogether—not out of any deliberate spite of mine; but because, at this second interruption, I looked at him, with an expression (as I suppose) so little calculated to encourage his hopes of my generosity that he gave the matter up in a moment, and turned away, with his horses, down the hill;—I partly not

caring to be further disturbed, and being besides too slow—as I always am in cases where presence of mind is needful—in calling him back again.

11. For, indeed, the confusion into which he had thrown my thoughts was all the more perfect and diabolic, because it consisted mainly in the stirring up of every particle of personal vanity and mean spirit of contention which could be concentrated in one blot of pure black ink, to be dropped into the midst of my aerial vision.

Finding it totally impossible to look at the Alps any more, for the moment, I got out of the carriage, sent it on to the Simplon village; and began climbing, to recover my feelings and wits, among the mossy knolls above the convent.

They were drenched with the just past rain; glittering now in perfect sunshine, and themselves enriched by autumn into wreaths of responding gold.

The vast hospice stood desolate in the hollow behind them; the first time I had ever passed it with no welcome from either monk, or dog. Blank as the fields of snow above, stood now the useless walls; and for the first time, unredeemed by association; only the thin iron cross in the center of the roof remaining to say that this had once been a house of Christian Hospitalers.

12. Desolate this, and dead the office of this,—for the present, it seems; and across the valley, instead, “l’hôtel sur le Bell Alp, bâti par Monsieur Tyndall,” no nest of dreamy monks, but of philosophically peripatetic or perisaltatory ‘puces des glaces.’

For, on the whole, that is indeed the dramatic aspect and relation of them to the glaciers; little jumping black things, who appear, under the photographic microscope, active on the ice-waves, or even inside of them;—giving to most of the great views of the Alps, in the windows at Geneva, a more or less animatedly punctuate and pulchricious character.

Such their dramatic and picturesque function, to anyone with clear eyes; their intellectual function, however, being more important, and comparable rather to a symmetrical

succession of dirt-bands,—each making the ice more invisible than the last; for indeed, here, in 1876, are published, with great care and expense, such a quantity of accumulated rubbish of past dejection, and moraine of finely triturated mistake, clogging together gigantic heaped blocks of far-traveled blunder,—as it takes away one's breath to approach the shadow of.

13. The first in magnitude, as in origin, of these long-sustained stupidities,—the pierre-à-Bot, or Frog-stone, par excellence, of the Neuchâtel clique,—is Charpentier's Dilatation Theory, revived by M. Viollet, not now as a theory, but an assured principle!—without, however, naming Charpentier as the author of it; and of course without having read a word of Forbes's demolition of it. The essential work of Deucalion is construction, not demolition; but when an avalanche of old rubbish is shot in our way, I must, whether I would or no, clear it aside before I can go on. I suppose myself speaking to my Sheffield men; and shall put so much as they need know of these logs upon the line, as briefly as possible, before them.

14. There are three theories extant, concerning glacier-motion, among the gentlemen who live at the intellectual 'Hôtel des Neuchâtelois.' These are specifically known as the Sliding,—Dilatation,—and Regelation, theories.

When snow lies deep on a sloping roof, and is not supported below by any cornice or gutter, you know that when it thaws, and the sun has warmed it to a certain extent, the whole mass slides off into the street.

That is the way the scientific persons who hold the 'Sliding theory,' suppose glaciers to move. They assume, therefore, two things more; namely, first that all mountains are as smooth as house-roofs; and, secondly, that a piece of ice a mile long and three or four hundred feet deep will slide gently, though a piece a foot deep and a yard long slides fast,—in other words, that a paving-stone will slide fast on another paving-stone, but the Rossberg fall at the rate of eighteen inches a day.

There is another form of the sliding theory, which is that glaciers slide in little bits, one at a time; or, for example, that if you put a railway train on an incline, with loose fastening to the carriages, the first carriage will slide first, as far as it can go; and then stop; then the second start, and catch it up, and wait for the third; and so on, till when the last has come up, the first will start again.

Having once for all sufficiently explained the 'Sliding theory' to you, I shall not trouble myself any more in Deucalion about it.

15. The next theory is the Dilatation theory. The scientific persons who hold *that* theory suppose that whenever a shower of rain falls on a glacier, the said rain freezes inside of it; and that the glacier being thereby made bigger, stretches itself uniformly in one direction, and never in any other; also that, although it can only be thus expanded in cold and wet weather, such expansion is the reason that it always goes fastest in hot and dry weather.

There is another form of the Dilatation theory, which is that the glacier expands by freezing its own meltings.

16. Having thus sufficiently explained the Dilatation theory to you, I shall not trouble myself in Deucalion farther about *it*; noticing only, in bidding it good-by, the curious want of power in scientific men, when once they get hold of a false notion, to perceive the commonest analogies implying its correction. One would have thought that, with their thermometer in their hand to measure congelation with, and the idea of expansion in their head, the analogy between the tube of the thermometer, and a glacier channel, and the ball of the thermometer and a glacier reservoir, might, some sunshiny day, have climbed across the muddily-fissured glacier of their wits:—and all the quicker, that their much-studied Mer de Glace bears to the great reservoirs of ice above it precisely the relation of a very narrow tube to a very large ball. The vast 'instrument' seems actually to have been constructed by Nature, to show to the dullest of savants the difference between the steady current of flux through a chan-

nel of drainage, and the oscillatory vivacity of expansion which they constructed their own tubular apparatus to obtain!

17. The last popular theory concerning glaciers is the Regelation theory. The scientific persons who hold *that* theory, suppose that a glacier advances by breaking itself spontaneously into small pieces; and then spontaneously sticking the pieces together again;—that it becomes continually larger by a repetition of this operation, and that the enlargement (as assumed also by the gentlemen of the Dilatation party) can only take place downwards.

You may best conceive the gist of the Regelation theory by considering the parallel statement, which you may make to your scientific young people, that if they put a large piece of barleysugar on the staircase landing, it will walk downstairs by alternately cracking and mending itself.

I shall not trouble myself farther, in Deucalion, about the Regelation theory.

18. M. Viollet le Duc, indeed, appears to have written his book without even having heard of it; but he makes most dexterous use of the two others, fighting, as it were, at once with sword and dagger; and making his glaciers move on the Sliding theory when the ground is steep, and on the Dilatation theory when it is level. The wood-cuts at pages 65, 66, in which a glacier is represented dilating itself up a number of hills and down again, and that at page 99, in which it defers a line of bowlders, which by unexplained supernatural power have been deposited all across it, into moraines at its side, cannot but remain triumphant among monuments of scientific error,—bestowing on their author a kind of St. Simeon-Stylitic præminence of immortality in the Paradise of Fools.

19. Why I stopped first at page 58 of this singular volume, I see there is no room to tell in this number of Deucalion; still less to note the interesting repetitions by M. Viollet le Duc of the Tyndall-Agassiz demonstration that Forbes' assertion of the plasticity of ice in large pieces, is now

untenable, by reason of the more recent discovery of its plasticity in little ones. I have just space, however, for a little wood-cut from the 'Glaciers of the Alps,' (or 'Forms of water, I forget which, and it is no matter,) in final illustration of the Tyndall-Agassiz quality of wit.

20. Fig. 5, A, is Professor Tyndall's illustration of the effect of sunshine on a piece of glacier, originally of the form shown by the dotted line, and reduced by solar power on the south side to the beautifully delineated wave in the shape of a wedge.

It never occurred to the scientific author that the sunshine would melt some of the top, as well as of the side, of his

FIG. 5.



parallelepiped; nor that, during the process, even on the shady side of it, some melting would take place in the summer air. The figure at B represents three stages of the diminution which would really take place, allowing for these other somewhat important conditions of the question; and it shows, what may farther interest the ordinary observer, how rectangular portions of ice, originally produced merely by fissure in its horizontal mass, may be gradually reduced into sharp, ax-edged ridges, having every appearance of splintery and vitreous fracture. In next Deucalion I hope to give at last some account of my experiments on gelatinous fracture, made in the delightful laboratory of my friend's kitchen, with the aid of her infinitely conceding, and patiently collaborating, cook.

CHAPTER XI.

OF SILICA IN LAVAS.

1. THE rocks through whose vast range, as stated in the ninth chapter, our at first well-founded knowledge of their igneous origin gradually becomes dim, and fades into theory, may be logically divided into these four following groups.

I. True lavas. Substances which have been rapidly cooled from fusion into homogeneous masses, showing no clear traces of crystallization.

II. Basalts.* Rocks in which, without distinct separation of their elements, a disposition towards crystalline structure manifests itself.

III. Porphyries. Rocks in which one or more mineral elements separate themselves in crystalline form from a homogeneous paste.

IV. Granites. Rocks in which all their elements have taken crystalline form.

2. These, I say, are logical divisions, very easily tenable. But Nature laughs at logic, and in her infinite imagination of rocks, defies all Kosmos, except the mighty one which we, her poor puppets, shall never discern. Our logic will help us but a little way;—so far, however, we will take its help.

3. And first, therefore, let us ask what questions imperatively need answer, concerning indisputable lavas, seen by living human eyes to flow incandescent out of the earth, and thereon to cool into ghastly slags.

On these I have practically burnt the soles of my boots, and

* I use this word as on the whole the best for the vast class of rocks I wish to include; but without any reference to columnar desiccation. I consider, in this arrangement, only internal structure.

in their hollows have practically roasted eggs; and in the lee of them, have been wellnigh choked with their stench; and can positively testify respecting them, that they were in many parts once fluid under power of fire, in a very fine and soft flux; and did congeal out of that state into ropy or cellular masses, variously tormented and kneaded by explosive gas; or pinched into tortuous tension, as by diabolic tongs; and are so finally left by the powers of Hell, to submit themselves to the powers of Heaven, in black or brown masses of adamantine sponge without water, and horrible honeycombs without honey, interlaid between drifted banks of earthly flood, poured down from merciless clouds whose rain was ashes.

The seas that now beat against these, have shores of black sand; the peasant, whose field is in these, plows with his foot, and the wind harrows.

4. Now of the outsides of these lava streams, and unaltered volcanic ashes, I know the look well enough; and could supply Sheffield with any quantity of characteristic specimens, if their policy and trade had not already pretty nearly buried them, and great part of England besides, under such devil's ware of their own production. But of the *insides* of these lava streams, and of the recognized alterations of volcanic tufa, I know nothing. And, accordingly, I want authentic answer to these following questions, with illustrative specimens.

5. *a.* In lavas which have been historically hot to perfect fusion, so as to be progressive, on steep slopes, in the manner of iron out of a furnace in its pig-furrows;—in such perfect lavas, I say—what kind of difference is there between the substance at the surface and at the extremest known depths, after cooling? It is evident that such lavas can only accumulate to great depths in infernal pools or lakes. Of such lakes, which are the deepest known? and of those known, where are the best sections? I want for Sheffield a series of specimens of any well-fused lava anywhere, showing the gradations of solidity or crystalline-consolidation, from the outside to extreme depth.

b. On lavas which have not been historically hot, but of which there is no possible doubt that they were once fluent, (in the air,) to the above-stated degree, what changes are traceable, produced, irrespectively of atmospheric action, by lapse of time? What evidence is there that lavas, once cool to their centers, can sustain any farther crystalline change, or re-arrangement of mineral structure?

c. In lavas either historically or indisputably once fluent, what forms of silica are found? I limit myself at present to the investigation of volcanic *silica*: other geologists will in time take up other minerals; but I find silica enough, and more than enough, for my life, or at least for what may be left of it.

Now I am myself rich in specimens of Hyalite, and Auvergne stellar and guttate chalcedonies; but I have no notion whatever how these, or the bitumen associated with them, have been developed; and I shall be most grateful for a clear account of their locality,—possible or probable mode of production in that locality,—and microscopic structure. Of pure quartz, of opal, or of agate, I have no specimens connected with what I should call a truly 'living' lava; one, that is to say, which has simply cooled down to its existing form from the fluid state; but I have sent to the Sheffield Museum a piece of Hyalite, on a living lava, so much like a living wasp's nest, and so incredible for a lava at all to the general observer, that I want forthwith some help from my mineralogical friends, in giving account of it.

6. And here I must, for a paragraph or two, pass from definition of flinty and molten minerals, to the more difficult definition of flinty and molten hearts; in order to explain why the Hyalite which I have just sent to the men of Sheffield, for their first type of volcanic silica,* is not at all the best Hyalite in my collection. This is because I practically find a certain quantity of selfishness necessary to live by; and having no

* I give the description of these seven pieces of Hyalite at Sheffield, in Deucalion, because their description is necessary to explain certain general principles of arrangement and nomenclature.

manner of saintly nature in me, but only that of ordinary men,—(which makes me all the hotter in temper when I can't get ordinary men either to see what I know they can see if they look, or do what I know they can do if they like,)—I get sometimes weary of giving things away, letting my drawers get into disorder, and losing the powers of observation and thought which are connected with the complacency of possession, and the pleasantness of order. Whereupon I have resolved to bring my own collection within narrow limits; but to constitute it resolutely and irrevocably of chosen and curious pieces, for my own pleasure; trusting that they may be afterwards cared for by some of the persons who knew me, when I myself am troubled with care no more.*

7. This piece of Hyalite, however, just sent to Sheffield, though not my best, is the most curiously *definite* example I ever saw. It is on a bit of brown lava, which looks, as aforesaid, a little way off, exactly like a piece of a wasp's nest: seen closer, the cells are not hexagonal, but just like a cast of a spoonful of pease; the spherical hollows having this of notable in them, that they are only as close to each other as they can be, to *admit of their being perfectly round*: therefore, necessarily, with little spaces of solid stone between them. I have not the slightest notion how such a lava can be produced. It is like an oolite with the yolks of its eggs dropped out, and not in the least like a ductile substance churned into foam by expansive gas.

8. On this mysterious bit of gaseous wasp's nest, the Hyalite seems to have been dropped, like drops of glass from a melting glass rod. It seems to touch the lava just as little as it can; sticks at once on the edges of the cells, and laps over without running into, much less filling, them. There is not any appearance, and I think no possibility, of exudation hav-

* By the way, this selfish collection is to be primarily of stones that will *wash*. Of petty troubles, none are more fretting than the effect of dust on minerals that can neither be washed nor brushed. Hence, my speciality of liking for silica, felspar, and the granite or gneissic rocks.

ing taken place; the silica cannot but, I think, have been deposited; and it is stuck together just as if it had fallen in drops, which is what I mean by calling Hyalite characteristically 'guttate'; but it shows, nevertheless, a tendency to something like crystallization, in irregularities of surface like those of glacier ice, or the kind of old Venetian glass which is rough, and apparently of lumps coagulated. The fracture is splendidly vitreous,—the substance, mostly quite clear, but in parts white and opaque.

9. Now although no other specimen that I have yet seen is so manifestly guttate as this, all the hyalites I know agree in approximate conditions; and associate themselves with forms of chalcedony which exactly resemble the droppings from a fine wax candle. Such heated waxen effluences, as they congeal, will be found thrown into flattened coats; and the chalcedonies in question on the *under* surface precisely resemble them; while on the *upper* they become more or less crystalline, and, in some specimens, form lustrous stellar crystals in the center.

10. Now, observe, this chalcedony, *capable of crystallization*, differs wholly from chalcedony properly so called, which may indeed be *covered* with crystals, but itself remains consistently smooth in surface, as true Hyalite does, also.

Not to be teased with too many classes, however, I shall arrange these peculiar chalcedonies with Hyalite; and, accordingly, I send next to the Sheffield Museum, to follow this first Hyalite, an example of the transition from Hyalite to dropped chalcedony, (1 H. 2,) being an Indian volcanic chalcedony, translucent, aggregated like Hyalite, and showing a *concave* fracture where a ball of it has been broken out.

11. Next, (1 H. 3,) pure dropped chalcedony. I do not like the word 'dropped' in this use,—so that, instead, I shall call this in future *wax* chalcedony; then (1 H. 4) the same form, with crystalline surface,—this I shall henceforward call *sugar* chalcedony; and, lastly, the ordinary stellar form of Auvergne, *star* chalcedony (1 H. 5).

These five examples are typical, and perfect in their kind;

next to them (1 H. 6) I place a wax chalcedony formed on a porous rock, (volcanic ash?) which has at the surface of it small circular *concavities*, being also so irregularly coagulate throughout that it suggests no mode of deposition whatever, and is peculiar in this also, that it is thinner in the center than at the edges, and that no vestige of its substance occurs in the pores of the rock it overlies.

Take a piece of porous broken brick, drop any tallowy composition over four or five inches square of its surface, to the depth of one-tenth of an inch; then drop more on the edges till you have a rampart round, the third of an inch thick; and you will have some likeness of this piece of stone: but how Nature held the composition in her fingers, or composed it to be held, I leave you to guess, for I cannot.

12. Next following, I place the most singular example of all (1 H. 7). The chalcedony in 1 H. 6 is apparently dropped on the ashes, and of irregular thickness; it is difficult to understand *how* it was dropped, but once *get* Nature to hold the candle, and the thing is done.

But here, in 1 H. 7, it is no longer apparently dropped, but apparently boiled! It rises like the bubbles of a strongly boiling liquid;—but not from a liquid mass; on the contrary, (except in three places, presently to be described,) it coats the volcanic ash in perfectly even thickness—a quarter of an inch, *and no more, nor less, everywhere*, over a space five inches square! and the ash, or lava, itself, instead of being porous throughout the mass, with the silica only on the surface, is filled with chalcedony in every cavity!

Now this specimen completes the transitional series from hyalite to perfect chalcedony; and with these seven specimens, in order, before us, we can define some things, and question of others, with great precision.

13. First, observe that all the first six pieces agree in two conditions,—*varying*, and *coagulated*, thickness of the deposit. But the seventh has the remarkable character of *equal*, and therefore probably crystalline, deposition everywhere.

Secondly. In the first six specimens, though the coagula-

tions are more or less rounded, none of them are regularly spherical. But in the seventh, though the larger bubbles (so to call them) are subdivided into many small ones, every uninterrupted piece of the surface is *a portion of a sphere*, as in true bubbles.

Thirdly. The sugar chalcedony, 1 H. 4, and stellar chalcedony, 1 H. 5, show perfect power of assuming, under favorable conditions, prismatic crystalline form. But there is no trace of such tendency in the first three, or last two, of the seven examples. Nor has there ever, so far as I know, been found prismatic true hyalite, or prismatic true chalcedony.

Therefore we have here essentially three different minerals, passing into each other it is true; but, at a certain point, changing their natures definitely, so that *hyalite, becoming wax chalcedony, gains* the power of prismatic crystallization; and *wax chalcedony, becoming true chalcedony, loses* it again!

And now I must pause, to explain rightly this term 'prismatic,' and others which are now in use, or which are to be used, in St. George's Schools, in describing crystallization.

14. A prism, (the *sawn* thing,) in Newton's use of the word, is a triangular pillar with flat top and bottom. Putting two or more of these together, we can make pillars of any number of plane sides, in any regular or irregular shape. Crystals, therefore, which are columnar, and thick enough to be distinctly seen, are called 'prismatic.'

2. But crystals which are columnar, and so delicate that they look like needles, are called 'acicular,' from *acus*, a needle.
3. When such crystals become so fine that they look like hair or down, and lie in confused directions, the mineral composed of them is called 'plumose.'
4. And when they adhere together closely by their sides, the mineral is called 'fibrous.'
5. When a crystal is flattened by the extension of two of its planes, so as to look like a board, it is called 'tabular'; but people don't call it a 'tabula.'

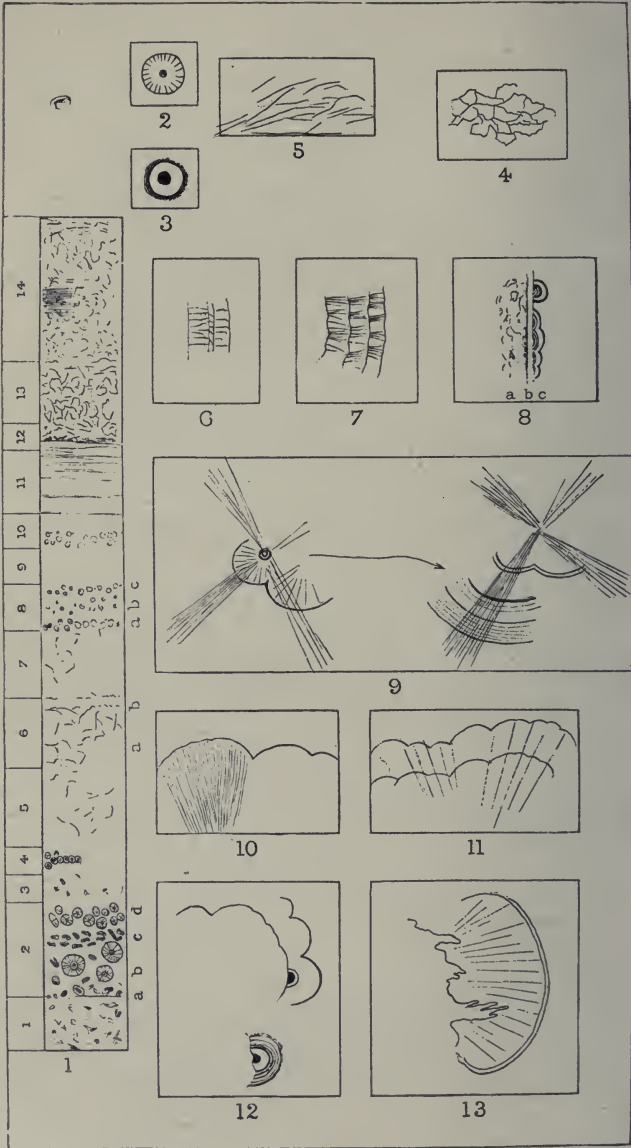


Plate V.

STRUCTURE OF LAKE AGATE.

6. But when such a board becomes very thin, it is called a 'lamina,' and the mineral composed of many such plates, laminated.
7. When laminæ are so thin that, joining with others equally so, they form fine leaves, the mineral is 'foliate.'
8. And when these leaves are capable of perpetual subdivision, the mineral is 'micaceous.'

15. Now, so far as I know their works, mineralogists hitherto have never attempted to show cause why some minerals rejoice in longitude, others in latitude, and others in platitude. They indicate to their own satisfaction,—that is to say, in a manner totally incomprehensible by the public,—all the modes of expatiation possible to the mineral, by cardinal points on a sphere: but why a crystal of ruby likes to be short and fat, and a crystal of rutile, long and lean; why amianth should bind itself into bundles of threads, cuprite weave itself into tissues, and silver braid itself into nets,—the use, in fact, that any mineral makes of its opportunities, and the cultivation which it gives to its faculties,—of all this, my mineralogical authorities tell me nothing. Industry, indeed, is theirs to a quite infinite degree, in pounding, decocting, weighing, measuring, but they have remained just as unconscious as vivisectioning physicians that all this was only the anatomy of dust,—not its history.

But here at last, in Cumberland, I find a friend, Mr. Clifton Ward, able and willing to begin some true history of mineral substance, and far advanced already in preliminary discovery; and in answer to my request for help, taking up this first hyalitic problem, he has sent me the drawings—engraved, I regret to say, with little justice to their delicacy; *—in Plate V.

16. This plate represents, in Figure 1, the varieties of structure in an inch vertical section of a lake-agate; and in Figures 2, 3, 4, and 5, still farther magnified portions of the layers so numbered in Figure 1.

* But not by my fault, for I told the engraver to do his best; and took more trouble with the plate than with any of my own.

Figures 6 to 9 represent the structure and effect of polarized light in a lake-agate of more distinctly crystalline structure; and Figures 10 to 13, the orbicular concretions of volcanic Indian chalcedony. But before entering farther on the description of these definitely concretionary bands, I think it will be desirable to take note of some facts regarding the larger bands of our Westmoreland mountains, which become to me, the more I climb them, mysterious to a point scarcely tolerable; and only the more so, in consequence of their recent more accurate survey.

17. Leaving their pebbles, therefore, for a little while, I will ask my readers to think over some of the conditions of their crags and pools, explained as best I could, in the following lecture, to the Literary and Scientific Society of the town of Kendal. For indeed, beneath the evermore blessed Kendal-green of their sweet meadows and moors, the secrets of hill-structure remain, for all the work spent on them, in colorless darkness; and indeed, "So dark, Hal, that thou could'st not see thine hand."

CHAPTER XII.

YEWDALE AND ITS STREAMLETS.

Lecture delivered before the Members of the Literary and Scientific Institution, Kendal, 1st October, 1877.

1. I FEAR that some of my hearers may think an apology due to them for having brought, on the first occasion of my being honored by their audience, a subject before them which they may suppose unconnected with my own special work, past or present. But the truth is, I knew mountains long before I knew pictures; and these mountains of yours, before any other mountains. From this town, of Kendal, I went out, a child, to the first joyful excursions among the Cumberland lakes, which formed my love of landscape and of painting: and now, being an old man, I find myself more and more glad to return—and pray you to-night to return with me—from shadows to the reality.

I do not, however, believe that one in a hundred of our youth, or of our educated classes, out of directly scientific circles, take any real interest in geology. And for my own part, I do not wonder,—for it seems to me that geology tells us nothing really interesting. It tells us much about a world that once was. But, for my part, a world that only was, is as little interesting as a world that only is to be. I no more care to hear of the forms of mountains that crumbled away a million of years ago to leave room for the town of Kendal, than of forms of mountains that some future day may swallow up the town of Kendal in the cracks of them. I am only interested—so ignoble and unspeculative is my disposition—in knowing how God made the Castle Hill of Kendal, for the

Baron of it to build on, and how he brought the Kent through the dale of it, for its people and flocks to drink of.

2. And these things, if you think of them, you will find are precisely what the geologists cannot tell you. They never trouble themselves about matters so recent, or so visible; and while you may always obtain the most satisfactory information from them respecting the congelation of the whole globe out of gas, or the direction of it in space, there is really not one who can explain to you the making of a pebble, or the running of a rivulet.

May I, however, before pursuing my poor little inquiry into these trifling matters, congratulate those members of my audience who delight more in literature than science, on the possession, not only of dales in reality, but of dales in name? Consider, for an instant or two, how much is involved, how much indicated, by our possession in English of the six quite distinct words—vale, valley, dale, dell, glen, and dingle;—consider the gradations of character in scene, and fineness of observation in the inhabitants, implied by that six-foil cluster of words; as compared to the simple ‘thal’ of the Germans, ‘valle’ of the Italians, and ‘vallée’ of the French, shortening into ‘val’ merely for ease of pronunciation, but having no variety of sense whatever; so that, supposing I want to translate, for the benefit of an Italian friend, Wordsworth’s ‘*Reverie of Poor Susan*,’ and come to “*Green pastures she views in the midst of the dale,*” and look for ‘dale’ in my Italian dictionary, I find “*valle lunga e stretta tra poggi alti,*” and can only convey Mr. Wordsworth’s meaning to my Italian listener by telling him that “*la povera Susanna vede verdi prati, nel mezzo della valle lunga e stretta tra poggi alti*” ! It is worth while, both for geological and literary reasons, to trace the essential differences in the meaning and proper use of these words.

3. ‘Vale’ signifies a large extent of level land, surrounded by hills, or nearly so; as the Vale of the White Horse, or Vale of Severn. The level extent is necessary to the idea; while the next word, ‘valley,’ means a large hollow among

hills, in which there is little level ground, or none. Next comes 'dale,' which signifies properly a tract of level land on the borders of a stream, continued for so great a distance as to make it a district of importance as a part of the inhabited country; as Ennerdale, Langdale, Liddesdale. 'Dell' is to dale, what valley is to vale; and implies that there is scarcely any level land beside the stream. 'Dingle' is such a recess or dell clothed with wood;* and 'glen' one varied with rocks. The term 'ravine,' a rent chasm among rocks, has its necessary parallel in other languages.

Our richness of expression in these particulars may be traced to the refinement of our country life, chiefly since the fifteenth century; and to the poetry founded on the ancient character of the Border peasantry; mingling agricultural with shepherd life in almost equal measure.

I am about to endeavor, then, to lay before you this evening the geological laws which have produced the 'dale,' properly so called, of which I take—for a sweet and near example—the green piece of meadow land through which flows, into Coniston Water, the brook that chiefly feeds it.

4. And now, before going farther, let me at once vindicate myself from the blame of not doing full justice to the earnest continuance of labor, and excellent subtlety of investigation, by which Mr. Aveline and Mr. Clifton Ward have presented you with the marvelous maps and sections of this district, now in course of publication in the Geological Survey. Especially let me, in the strongest terms of grateful admiration, refer to the results which have been obtained by the microscopic observations of minerals instituted by Mr. Sorby, and carried out indefatigably by Mr. Clifton Ward, forming the first sound foundations laid for the solution of the most secret problems of geology.

5. But while I make this most sincere acknowledgment

* Connected partly, I doubt not, with Ingle, or Inglewood,—brushwood to burn, (hence Justice Inglewood in 'Rob Roy'). I have still omitted 'clough,' or cleugh, given by Johnson in relation to 'dingle,' and constant in Scott, from 'Gander-cleugh' to 'Buc(k)-cleugh.'

of what has been done by these gentlemen, and by their brother geologists in the higher paths of science, I must yet in all humility lament that this vast fund of gathered knowledge is every bit of it, hitherto, beyond you and me. Dealing only with infinitude of space and remoteness of time, it leaves us as ignorant as ever we were, or perhaps, in fancying ourselves wiser, even more ignorant, of the things that are near us and around,—of the brooks that sing to us, the rocks that guard us, and the fields that feed.

6. To-night, therefore, I am here for no other purpose than to ask the simplest questions; and to win your interest, if it may be, in pleading with our geological teachers for the answers which as yet they disdain to give.

Here, in your long winding dale of the Kent,—and over the hills, in my little nested dale of the Yew,—will you ask the geologist, with me, to tell us how their pleasant depth was opened for us, and their lovely borders built? For, as yet, this is all that we are told concerning them, by accumulated evidence of geology, as collected in this summary at the end of the first part of Mr. Clifton Ward's volume on the geology of the lakes:—

“The most ancient geologic records in the district indicate marine conditions with a probable proximity of land. Submarine volcanoes broke out during the close of this period, followed by an elevation of land, with continued volcanic eruptions, of which perhaps the present site of Keswick was one of the chief centers. Depression of the volcanic district then ensued beneath the sea, with the probable sensation of volcanic activity; much denudation was effected; another slight volcanic outburst accompanied the formation of the Coniston Limestone, and then the old deposits of Skiddaw Slate and volcanic material were buried thousands of feet beneath strata formed in an upper Silurian sea. Next followed an immensely long period of elevation, accompanied by disturbance and alteration of the rocks, and by a prodigious amount of marine and atmospheric denudation. A subsequent depression to a considerable extent, marked the

coming on of the Carboniferous epoch, heralded however, in all likelihood, by a period of more or less intense cold. Then for succeeding ages, the district elevated high above the surrounding seas of later times, underwent that large amount of sub-aerial denudation which has resulted in the formation of our beautiful English Lake-country."

7. The only sentence in this passage of the smallest service to us, at present, is that stating the large amount of 'sub-aerial denudation' which formed our beautiful country.

Putting the geological language into simple English, that means that your dales and hills were produced by being 'rubbed down in the open air,'—rubbed down, that is to say, in the manner in which people are rubbed down after a Turkish bath, so as to have a good deal of their skin taken off them. But observe, it would be just as rational to say that the beauty of the human form was owing to the immemorial and continual use of the flesh-brush, as that we owe the beauty of our mountains to the mere fact of their having been rubbed away. No quantity of stripping or denuding will give beauty when there is none to denude;—you cannot rub a statue out of a sandbank, or carve the Elgin frieze with rottenstone for a chisel, and chance to drive it.

8. We have to ask then, first, what material there was here to carve; and then what sort of chisels, and in what workman's hand, were used to produce this large piece of precious chasing or embossed work, which we call Cumberland and Westmoreland.

I think we shall get at our subject most clearly, however, by taking a somewhat wider view of it than our own dales permit, and considering what 'sub-aerial denudation' means, on the surface of the world, instead of in Westmoreland only.

9. Broadly, therefore, we have, forming a great part of that surface, vast plains or steppes, like the levels of France, and lowlands of England, and prairies of America, composed mostly of horizontal beds of soft stone or gravel. Nobody in general talks of these having been rubbed down; so little, indeed, that I really do not myself know what the notions of

geologists are on the matter. They tell me that some four-and-twenty thousand feet or so of slate—say, four miles thick of slate—must have been taken off the top of Skiddaw to grind that into what it is; but I don't know in the least how much chalk or freestone they think has been ground off the East Cliff at Brighton, to flatten that into what it is. They tell me that Mont Blanc must have been three times as high as he is now, when God, or the affinity of atoms, first made him; but give me no idea whatever how much higher the shore of the Adriatic was than it is now, before the lagoon of Venice was rubbed out of it.

10. Collecting and inferring as best I can, it seems to me they mean generally that all the mountains were much higher than they are now, and all the plains lower; and that what has been scraped off the one has been heaped on to the other: but that is by no means generally so; and in the degree in which it is so, hitherto has been unexplained, and has even the aspect of being inexplicable.

I don't know what sort of models of the district you have in the Museum, but the kind commonly sold represent the entire mountain surface merely as so much sandheap washed into gutters. It is totally impossible for your youth, while these false impressions are conveyed by the cheap tricks of geographical manufacture, to approach the problems of mountain form under any sense of their real conditions: while even advanced geologists are too much in the habit of thinking that every mountain mass may be considered as a heap of homogeneous clay, which some common plow has fretted into similar clods.

But even to account for the furrows of a field you must ask for plow and plowman. How much more to account for the furrows of the adamantine rock. Shall one plow *there* with oxen?

I will ask you, therefore, to-night, to approach this question in its first and simplest terms, and to examine the edge of the weapon which is supposed to be still at work. The streamlets of the dale seem yet in many places to be excavating their

glens as they dash down them,—or deepening the pools under their cascades. Let us in such simple and daily visible matters consider more carefully what are the facts.

11. Towards the end of July, this last summer, I was sauntering among the fern, beside the bed of the Yewdale stream, and stopped, as one does instinctively, at a place where the stream stopped also,—bending itself round in a quiet brown eddy under the root of an oak tree.

How many thousand thousand times have I not stopped to look down into the pools of a mountain stream,—and yet never till that day had it occurred to me to ask how the pools came there. As a matter of course, I had always said to myself, there must be deep places and shallow ones,—and where the water is deep there is an eddy, and where it is shallow there is a ripple,—and what more is there to say about it?

However, that day, having been of late in an interrogative humor about everything, it did suddenly occur to me to ask why the water should be deep there, more than anywhere else. This pool was at a bend of the stream, and rather a wide part of it; and it seemed to me that, for the most part, the deep pools I recollected *had* been at bends of streams, and in rather wide parts of them;—with the accompanying condition of slow circular motion in the water; and also, mostly under steep banks.

12. Gathering my fifty years' experience of brooks, this seemed to me a tenable generalization, that on the whole, where the bank was steepest, and one was most likely to tumble in, one was least likely to get out again.

And that gloomily slow and sullen motion on the surface, as if the bubbles were unwillingly going round in a mill,—this also I recollected as a usual condition of the deeper water,—so usual, indeed, that (as I say) I never once before had reflected upon it as the least odd. Whereas now, the thought struck me as I looked, and struck me harder as I looked longer, If the *bubbles* stay at the top, why don't the *stones*

stay at the bottom? If, when I throw in a stick here in the back eddy, at the surface, it keeps spinning slowly round and round, and never goes down-stream—am I to expect that when I throw a stone into the same eddy, it will be immediately lifted by it out of the hole and carried away? And yet unless the water at the bottom of the hole has this power of lifting stones out of it, why is the hole not filled up?

13. Coming to this point of the question, I looked up the beck, and down. Up the beck, above the pool, there was a shallow rapid over innumerable stones of all sizes: and down the beck, just below the pool, there was a ledge of rock, against which the stream had deposited a heap of rolled shingle, and over the edges of which it flowed in glittering tricklets, so shallow that a child of four years old might have safely waded across; and between the loose stones above in the steep rapid, and the ledge of rock below—which seemed put there expressly for them to be lodged against—here was this deep, and wide, and quiet, pool.

So I stared at it, and stared; and the more I stared, the less I understood it. And if you like, any of you may easily go and stare too, for the pool in question is visible enough from the coachroad, from Mr. Sly's Waterhead Inn, up to Tilberthwaite. You turn to the right from the bridge at Mr. Bowness's smithy, and then in a quarter of a mile you may look over the roadside wall into this quiet recess of the stream, and consider of many things. For, observe, if there were anything out of the way in the pool—I should not send you to look at it. I mark it only for one of myriads such in every mountain stream that ever trout leaped or ripple laughed in.

And beside it, as a type of all its brother deeps, these following questions may be wisely put to yourselves.

14. First—How are any of the pools kept clear in a stream that carries shingle? There is some power the water has got of lifting it out of the deeps hitherto unexplained—unthought of. Coming down the rapid in a rage, it drops the stones, and leaves them behind; coming to the deep hole,

where it seems to have no motion, it picks them up and carries them away in its pocket. Explain that.

15. But, secondly, beside this pool let us listen to the wide murmuring geological voice, telling us—"To sub-aerial denudation you owe your beautiful lake scenery"!—Then, presumably, Yewdale among the rest?—Therefore we may look upon Yewdale as a dale sub-aerially denuded. That is to say, there was once a time when no dale was there, and the process of denudation has excavated it to the depth you see.

16. But now I can ask, more definitely and clearly, With what chisel has this hollow been hewn for us? Of course, the geologist replies, by the frost, and the rain, and the decomposition of its rocks. Good; but though frost may break up, and the rain wash down, there must have been somebody to cart away the rubbish, or still you would have had no Yewdale. Well, of course, again the geologist answers, the streamlets are the carters; and this stream past Mr. Bowness's smithy is carter-in-chief.

17. How many cartloads, then, may we suppose the stream has carried past Mr. Bowness's, before it carted away all Yewdale to this extent, and cut out all the northern side of Wetherlam, and all that precipice of Yewdale Crag, and carted all the rubbish first into Coniston Lake, and then out of it again, and so down the Crake into the sea? Oh, the geologists reply, we don't mean that the little Crake did all that. Of course it was a great river full of crocodiles a quarter of a mile long; or it was a glacier five miles thick, going ten miles an hour; or a sea of hot water fifty miles deep,—or,—something of that sort. Well, I have no interest, myself, in *anything* of that sort: and I want to know, here, at the side of my little puzzler of a pool, whether there's any sub-aerial denudation going on still, and whether this visible Crake, though it can only do little, does *anything*. Is it carrying stones at all, now, past Mr. Bowness's? Of course, reply the geologists; don't you see the stones all along it, and doesn't it bring down more every flood? Well, yes; the delta of Coniston Waterhead may, perhaps, within the

memory of the oldest inhabitant, or within the last hundred years, have advanced a couple of yards or so. At that rate, those two streams, considered as navvies, are proceeding with the works in hand;—to that extent they are indeed filling up the lake, and to that extent sub-aerially denuding the mountains. But now, I must ask your attention very closely: for I have a strict bit of logic to put before you, which the best I can do will not make clear without some helpful effort on your part.

18. The streams, we say, by little and little, are filling up the lake. They did not cut out the basin of that. Something else must have cut out that, then, before the streams began their work. Could the lake, then, have been cut out all by itself, and none of the valleys that lead to it? Was it punched into the mass of elevated ground like a long grave, before the streams were set to work to cut Yewdale down to it?

19. You don't for a moment imagine that. Well, then, the lake and the dales that descend with it, must have been cut out together. But if the lake not by the streamlets, then the dales not by the streamlets? The streamlets are the consequence of the dales then,—not the causes; and the sub-aerial denudation to which you owe your beautiful lake scenery, must have been something, not only different from what is going on now, but, in one half of it at least, *contrary* to what is going on now. Then, the lakes which are now being filled up, were being cut down; and as probably, the mountains now being cut down, were being cast up.

20. Don't let us go too fast, however. The streamlets are now, we perceive, filling up the big lake. But are they not, then, also filling up the little ones? If they don't cut Coniston Water deeper, do you think they are cutting Mr. Marshall's tarns deeper? If not Mr. Marshall's tarns deeper, are they cutting their own little pools deeper? This pool by which we are standing—we have seen it is inconceivable how it is not filled up,—much more it is inconceivable that it should be cut deeper down. You can't suppose that the same stream which is filling up the Coniston Lake below

Mr. Bowness's is cutting out another Coniston Lake above Mr. Bowness's? The truth is that, above the bridge as below it, and from their sources to the sea, the streamlets have the same function, and are filling, not deepening, alike tarn, pool, channel, and valley.

21. And that being so, think how you have been misled by seeking knowledge far afield, and for vanity's sake, instead of close at home, and for love's sake. You must go and see Niagara, must you?—and you will brick up and make a foul drain of the sweet streamlet that ran past your doors. And all the knowledge of the waters and the earth that God meant for you, flowed with it, as water of life.

Understand, then, at least, and at last, to-day, Niagara is a vast Exception—and Deception. The true cataracts and falls of the great mountains, as the dear little cascades and leaplets of your own rills, fall where they fell of old;—that is to say, wherever there's a hard bed of rock for them to jump over. They don't cut it away—and they can't. They do form pools *beneath* in a mystic way,—they excavate them to the depth which will break their fall's force—and then they excavate no more.*

We must look, then, for some other chisel than the streamlet; and therefore, as we have hitherto interrogated the waters at their work, we will now interrogate the hills, in their patience.

22. The principal flank of Yewdale is formed by a steep range of crag, thrown out from the greater mass of Wetherlam, and known as Yewdale Crag.

It is almost entirely composed of basalt, or hard volcanic ash; and is of supreme interest among the southern hills of the lake district, as being practically the first rise of the great mountains of England, out of the lowlands of England.

And it chanced that my own study window being just opposite this crag, and not more than a mile from it as the bird flies, I have it always staring me, as it were, in the face,

* Else, every pool would become a well, of continually increasing depth.

and asking again and again, when I look up from writing any of my books,—“How did *I* come here?”

I wrote that last sentence hurriedly, but leave it—as it was written; for, indeed, however well I know the vanity of it, the question is still sometimes, in spite of my best effort, put to me in that old form by the mocking crags, as by a vast couchant Sphinx, tempting me to vain labor in the inscrutable abyss.

But as I regain my collected thought, the mocking question ceases, and the divine one forms itself, in the voice of vale and streamlet, and in the shadowy lettering of the engraven rock.

“Where wast thou when I laid the foundation of the earth?—declare, if thou hast understanding.”

23. How Yewdale Crags came there, I, for one, will no more dream, therefore, of knowing, than the wild grass can know, that shelters in their clefts. I will only to-night ask you to consider one more mystery in the things they have suffered since they came.

You might naturally think, following out the idea of ‘sub-aerial denudation,’ that the sudden and steep rise of the crag above these softer strata was the natural consequence of its greater hardness; and that in general the district was only the remains of a hard knot or kernel in the substance of the island, from which the softer superincumbent or surrounding material had been more or less rubbed or washed away.*

24. But had that been so, one result of the process must have been certain—that the hard rocks would have resisted more than the soft; and that in some distinct proportion and connection, the hardness of a mountain would be conjecturable from its height, and the whole surface of the district

* The most wonderful piece of weathering, in all my own district, is on a *projecting* mass of intensely hard rock on the eastern side of Goat’s Water. It was discovered and shown to me by my friend the Rev. F. A. Malleon; and exactly resembles deep ripple-marking, though nothing in the grain of the rock indicates its undulatory structure.

more or less manifestly composed of hard bosses or ridges, with depressions between them in softer materials. Nothing is so common, nothing so clear, as this condition, on a small scale, in every weathered rock. Its quartz, or other hard knots and veins, stand out from the depressed surface in raised walls, like the divisions between the pits of Dante's eighth circle,—and to a certain extent, Mr. Ward tells us, the lava dykes, either by their hardness or by their decomposition, produce walls and trenches in the existing surface of the hills. But these are on so small a scale, that on this map they cannot be discernedly indicated; and the quite amazing fact stands out here in unqualified and indisputable decision, that by whatever force these forms of your mountain were hewn, it cut through the substance of them, as a sword-stroke through flesh, bone, and marrow, and swept away the masses to be removed, with as serene and indiscriminating power as one of the shot from the Devil's great guns at Shoeburyness goes through the oak and the iron of its target.

25. It is with renewed astonishment, whenever I take these sections into my hand, that I observe the phenomenon itself; and that I remember the persistent silence of geological teachers on this matter, through the last forty years of their various discourse. In this shortened section, through Bowfell to Brantwood, you go through the summits of three first-rate mountains down to the lowland moors: you find them built, or heaped; barred, or bedded; here with forged basalt, harder than flint and tougher than iron,—there, with shivering shales that split themselves into flakes as fine as puff-paste, and as brittle as shortbread. And behold, the hewing tool of the Master Builder sweeps along the forming lines, and shapes the indented masses of them, as a draper's scissors shred a piece of striped sarcenet!

26. Now do but think a little of the wonderfulness in this. If the process of grinding was slow, why don't the hard rocks project? If swift, what kind of force must it have been? and why do the rocks it tore show no signs of rending? Nobody supposes it was indeed swift as a sword

or a cannonball? but if not, why are the rocks not broken? Can you break an oak plank and leave no splinters, or cut a bed of basalt a thousand feet thick like cream-cheese?

But you suppose the rocks were soft when it was done. Why don't they squeeze then?

Make Dover cliffs of baker's dough, and put St. Paul's on the top of them,—won't they give way somewhat, think you? and you will then make Causey Pike of clay, and heave Scawfell against the side of it; and yet shall it not so much as show a bruise?

Yet your modern geologists placidly draw the folded beds of the Skiddaw and Causey Pike slate, *first*, without observing whether the folds they draw are *possible* folds in anything; and, *secondly*, without the slightest suggestion of sustained pressure, or bruise, in any part of them.

27. I have given in my diagram, (Plate VI., Fig. 1,) the section, attributed, in that last issued by the Geological Survey, to the contorted slates of Maiden Moor, between Causey Pike and the erupted masses of the central mountains. Now, for aught I know, those contortions may be truly represented;—but if so, they are not contortions by lateral pressure. For, first, they are impossible forms in any substance whatever, capable of being contorted; and, secondly, they are doubly impossible in any substance capable of being squeezed.

Impossible, I say first, in any substance capable of being contorted. Fold paper, cloth, leather, sheets of iron,—what you will, and still you can't *have the folded bed at the top double the length of that at the bottom*. But here, I have measured the length of the upper bed, as compared with that of the lower, and it is twenty miles, to eight miles and a half.

Secondly, I say, these are impossible folds in any substance capable of being squeezed, for every such substance will change its form as well as its direction under pressure. And to show you how such a substance does actually behave and contort itself under lateral pressure, I have prepared the sections Figures 2, 3, and 4.



Fig. 1. Slates of Bull Crag and Maiden Moor. (GEOLOGICAL SURVEY.)

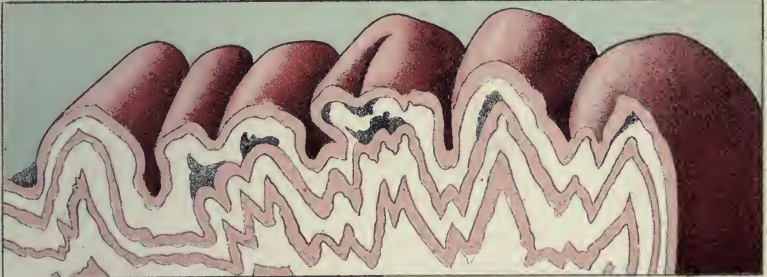


Fig. 2. Pie-Paste Compression from the right, simple.



Fig. 3. Pie-Paste. Compression modified by elevatory forces.



Fig. 4. Pie Paste. Compression restricted to the lower Strata under a rigid upper one.

LATERAL COMPRESSION OF STRATA.

Fig. 1, Ideal. Figs. 2, 3, & 4, Practical.

28. I have just said you have no business to seek knowledge far afield, when you can get it at your doors. But more than that, you have no business to go outside your doors for it, when you can get it in your parlor. And it so happens that the two substances which, while the foolish little king was counting out his money, the wise little queen was eating in the parlor, are precisely the two substances besides which wise little queens, and kings, and everybody else, may also think, in the parlor,—Bread, and honey. For whatever bread, or at least dough, will do under pressure, ductile rocks, in their proportion, must also do under pressure; and in the manner that honey will move, poured upon a slice of them,—in that manner, though in its own measure, ice will move, poured upon a bed of them. Rocks, no more than piecrust, can be rolled out without squeezing them thinner; and flowing ice can no more excavate a valley, than flowing treacle a teaspoon.

29. I said just now, Will you dash Scawfell against Causey Pike?

I take, therefore, from the Geological Survey the section of the Skiddaw slates, which continue the mass of Causey Pike under the Vale of Newlands, to the point where the volcanic mass of the Scawfell range thrusts itself up against them, and laps over them. They are represented, in the section, as you see, (Plate VI., Fig. 1;) and it has always been calmly assumed by geologists that these contortions were owing to lateral pressure.

But I must beg you to observe that since the uppermost of these beds, if it were straightened out, would be more than twice the length of the lower ones, you could only obtain that elongation by squeezing the upper bed more than the lower, and making it narrower where it is elongated. Now, if this were indeed at the surface of the ground, the geologists might say the upper bed had been thrown up because there was less weight on it. But, by their own accounts, there were five miles thick of rocks on the top of all this when it was bent. So you could not have made

one bed tilt up, and another stay down; and the structure is evidently an impossible one.

30. Nay, answer the surveyors, impossible or not, it is there. I partly, in pausing, myself doubt its being there. This looks to me an ideal, as well as an impossible, undulation.

But if it is indeed truly surveyed, then assuredly whatever it may be owing to, it is not owing to lateral pressure.

That is to say, it may be a crystalline arrangement assumed under pressure, but it is assuredly *not* a form assumed by ductile substance under mechanical force. Order the cook to roll out half a dozen strips of dough, and to stain three of them with cochineal. Put red and white alternately one above the other. Then press them in any manner you like; after pressure, a wetted carving knife will give you quite unquestionable sections, and you see the results of three such experiments in the lower figures of the plate.

31. Figure 2 represents the simplest possible case. Three white and three red dough-strips were taken, a red one uppermost, (for the pleasure of painting it afterwards)! They were left free at the top, inclosed at the sides, and then reduced from a foot to six inches in length, by pressure from the right. The result, you see, is that the lower bed rises into sharpest gables; the upper ones are rounded softly. But in the geological section it is the upper bed that rises, the lower keeps down! The second case is much more interesting. The pastes were arranged in the same order, but bent up a little, to begin with, in two places, before applying the pressure. The result was, to my own great surprise, that at these points of previous elevation, the lower bed first became quite straight by tension as it rose, and then broke into transverse faults.

32. The third case is the most interesting of all. In this case, a roof of slate was put over the upper bed, allowing it to rise to some extent only, and the pressure was applied to the two lower beds only.* The upper bed of course exuded

* Here I had to give the left-hand section, as it came more neatly. The wrinkled mass on the left colored brown represents the pushing piece of wood, at the height to which it was applied.

backwards, giving these flame-like forms of which afterwards I got quite lovely complications by repeated pressures. These I must reserve for future illustration, concluding to-night, if you will permit me, with a few words of general advice to the younger members of this society, formed as it has been to trace for itself a straight path through the fields of literature, and over the rocks of science.

33. First.—Whenever you write or read English, write it pure, and make it pure if ill written, by avoiding all unnecessary foreign, especially Greek, forms of words yourself, and translating them when used by others. Above all, make this a practice in science. Great part of the supposed scientific knowledge of the day is simply bad English, and vanishes the moment you translate it.

There is a farther very practical reason for avoiding all vulgar Greek-English. Greece is now a kingdom, and will I hope remain one, and its language is now living. The ship-chandler, within six doors of me on the quay at Venice, had indeed a small English sign—calling himself Ship-Chandler: but he had a large and practically more serviceable, Greek one, calling himself a “*προμηθετης των πλοιων.*” Now when the Greeks want a little of your science, as in very few years they must, if this absurd practice of using foreign languages for the clarification of scientific principle still holds, what you, in compliment to Greece, call a ‘Dinothorium,’ Greece, in compliment to you, must call a ‘Nastybeastium,’—and you know that interchange of compliments can’t last long.

34. II. Observe generally that all knowledge, little or much, is dangerous, in which your progress is likely to be broken short by any strict limit set to the powers of mortals: while it is precisely that kind of knowledge which provokes vulgar curiosity, because it seems so far away; an idle ambition, because it allows any quantity of speculation, without proof. And the fact is that the greater quantity of the knowledge which modern science is so saucy about, is only an asses’ bridge, which the asses all stop at the top of, and

which, moreover, they can't help stopping at the top of; for they have from the beginning taken the wrong road, and so come to a broken bridge—a Ponte Rotto over the river of Death, by which the Pontifex Maximus allows them to pass no step farther.

35. For instance,—having invented telescopes and photography, you are all stuck up on your hobby horses because you know how big the moon is, and can get pictures of the volcanoes in it!

But you never can get any more than *pictures* of these, while in your own planet there are a thousand volcanoes which you may jump into, if you have a mind to; and may one day perhaps be blown sky high by, whether you have a mind or not. The last time the great volcano in Java was in eruption, it threw out a stream of hot water as big as Lancaster Bay, and boiled twelve thousand people. That's what I call a volcano to be interested about, if you want sensational science.

36. But if not, and you can be content in the wonder and the power of Nature, without her terror,—here is a little bit of a volcano, close at your very doors—Yewdale Crag, which I think will be quiet for our time,—and on which the anagallis tenella, and the golden potentilla, and the sundew, grow together among the dewy moss in peace. And on the cellular surface of one of the blocks of it, you may find more beauty, and learn more precious things, than with telescope or photograph from all the moons in the milky way, though every drop of it were another solar system.

I have a few more very serious words to say to the fathers, and mothers, and masters, who have honored me with their presence this evening, with respect to the influence of these far-reaching sciences on the temper of children.

37. Those parents who love their children most tenderly, cannot but sometimes dwell on the old Christian fancy, that they have guardian angels. I call it an old fancy, in deference to your modern enlightenment in religion; but I assure you nevertheless, in spite of all that illumination, there re-

mains yet some dark possibility that the old fancy may be true: and that, although the modern apothecary cannot exhibit to you either an angel, or an imp, in a bottle, the spiritual powers of heaven and hell are no less now, than heretofore, contending for the souls of your children; and contending with *you*—for the privilege of their tutorship.

38. Forgive me if I use, for the few minutes I have yet to speak to you, the ancient language,—metaphorical, if you will, of Luther and Fénelon, of Dante and Milton, of Goethe and Shakspeare, of St. John and St. Paul, rather than your modern metaphysical or scientific slang: and if I tell you, what in the issue of it you will find is either life-giving, or deadly, fact,—that the fiends and the angels contend with you daily for the spirits of your children: the devil using to you his old, his hitherto immortal, bribes, of lust and pride; and the angels pleading with you, still, that they may be allowed to lead your babes in the divine life of the pure and the lowly. To enrage their lusts, and chiefly the vilest lust of money, the devils would drag them to the classes that teach them how to get on in the world; and for the better pluming of their pride, provoke their zeal in the sciences which will assure them of there being no God in nature but the gas of their own graves.

And of these powers you may discern the one from the other by a vivid, instant, practical test. The devils always will exhibit to you what is loathsome, ugly, and, above all, dead; and the angels, what is pure, beautiful, and, above all, living.

39. Take an actual literal instance. Of all known quadrupeds, the unhappiest and vilest, yet alive, is the sloth, having this farther strange devilry in him, that what activity he is capable of, is in storm, and in the night. Well, the devil takes up this creature, and makes a monster of it,—gives it legs as big as hogsheads, claws stretched like the roots of a tree, shoulders like a hump of crag, and a skull as thick as a paving-stone. From this nightmare monster he takes what poor faculty of motion the creature, though wretched,

has in its minuter size; and shows you, instead of the clinging climber that scratched and scrambled from branch to branch among the rattling trees as they bowed in storm, only a vast heap of stony bones and staggering clay, that drags its meat down to its mouth out of the forest ruin. This creature the fiends delight to exhibit to you, but are permitted by the nobler powers only to exhibit to you in its death.*

40. On the other hand, as of all quadrupeds there is none

* The Mylodon. An old sketch, (I think, one of Leech's) in Punch, of Paterfamilias improving Master Tom's mind among the models on the mud-bank of the lowest pond at Sydenham, went to the root of the matter. For the effect, on Master Tom's mind of the living squirrel, compare the following account of the most approved modes of squirrel-hunting, by a clerical patron of the sport, extracted for me by a correspondent, from 'Rabbits: how to rear and manage them; with Chapters on Hares, Squirrels, etc.' \ S. O. Beeton, 248, Strand, W. C.

"It may be easily imagined that a creature whose playground is the top twigs of tall trees, where no human climber dare venture, is by no means easy to capture—especially as its hearing is keen, and its vision remarkably acute. Still, among boys living in the vicinity of large woods and copses, squirrel-hunting is a favorite diversion, and none the less so because it is seldom attended by success. 'The only plan,' says the Rev. Mr. Wood, 'is to watch the animal until it has ascended an isolated tree, or, by a well-directed shower of missiles, to drive it into such a place of refuge, and then to form a ring round the tree so as to intercept the squirrel, should it try to escape by leaping to the ground and running to another tree. The best climber is then sent in chase of the squirrel, and endeavors, by violently shaking the branches, to force the little animal to loose its hold and fall to the earth. But it is by no means an easy matter to shake a squirrel from a branch, especially as the little creature takes refuge on the topmost and most slender boughs, which even bend under the weight of its own small body, and can in no way be trusted with the weight of a human being. By dint, however, of perseverance, the squirrel is at last dislodged, and comes to the ground as lightly as a snow-flake. Hats, caps, sticks, and all available missiles are immediately flung at the luckless animal as soon as it touches the ground, and it is very probably struck and overwhelmed by a cap. The successful hurler flings himself upon the cap, and tries to seize the squirrel as it lies under his property. All his companions gather round him, and great is the disappointment to find the cap empty, and to see the squirrel triumphantly scampering up some tree where it would be useless to follow it.'"

so ugly or so miserable as the sloth, so, take him for all in all, there is none so beautiful, so happy, so wonderful, as the squirrel. Innocent in all his ways, harmless in his food, playful as a kitten, but without cruelty, and surpassing the fantastic dexterity of the monkey, with the grace and the brightness of a bird, the little dark-eyed miracle of the forest glances from branch to branch more like a sunbeam than a living creature: it leaps, and darts, and twines, where it will;—a chamois is slow to it; and a panther, clumsy: grotesque as a gnome, gentle as a fairy, delicate as the silken plumes of the rush, beautiful and strong like the spiral of a fern,—it haunts you, listens for you, hides from you, looks for you, loves you, as if the angel that walks with your children had made it himself for their heavenly plaything.

And this is what *you* do, to thwart alike your child's angel, and his God,—you take him out of the woods into the town,—you send him from modest labor to competitive schooling,—you force him out of the fresh air into the dusty bone house,—you show him the skeleton of the dead monster, and make him pore over its rotten cells and wire-stitched joints, and vile extinct capacities of destruction,—and when he is choked and sickened with useless horror and putrid air, you let him—regretting the waste of time—go out for once to play again by the woodside;—and the first squirrel he sees, he throws a stone at!

Carry, then, I beseech you, this assured truth away with you to-night. All true science begins in the love, not the dissection, of your fellow-creatures; and it ends in the love, not the analysis, of God. Your alphabet of science is in the nearest knowledge, as your alphabet of science is in the nearest duty. “Behold, it is nigh thee, even at the doors.” The Spirit of God is around you in the air that you breathe,—His glory in the light that you see; and in the fruitfulness of the earth, and the joy of its creatures, He has written for you, day by day, His revelation, as He has granted you, day by day, your daily bread.

CHAPTER XIII.

OF STELLAR SILICA.

1. THE issue of this number of *Deucalion* has been so long delayed, first by other work, and recently by my illness, that I think it best at once to begin Mr. Ward's notes on Plate V.: reserving their close, with full explanation of their importance and bearing, to the next following number.

GRETA BANK COTTAGE, KESWICK,
June 13, 1876.

My dear Sir,—I send you a few notes on the microscopic structure of the three specimens I have had cut. In them I have stated merely what I have seen. There has been much which I did not expect, and still more is there that I don't understand.

I am particularly sorry I have not the time to send a whole series of colored drawings illustrating the various points; but this summer weather claims my time on the mountain-side, and I must give up microscopic work until winter comes round again.

The minute spherulitic structure—especially along the fine brown lines—was quite a surprise, and I shall hope on some future occasion to see more of this subject. Believe me, yours very truly,

J. CLIFTON WARD.

P.S.—There seems to be a great difference between the microscopic structure of the specimens now examined and that of the filled-up vesicles in many of my old lavas here, so far as my *limited* examination has gone.

SPECIMEN A.

No. 1 commences at the end of the section farthest from A in specimen.

1. Transparent zone with irregular curious cavities (not liquid), and a few mossy-looking round spots (brownish).

Polarization. Indicating an indefinite semi-crystalline structure. (See note at page 154.)

2. Zone with minute seed-like bodies of various sizes (narrow brownish bands in the specimen of darker and lighter tints).

a. Many cavities, and of an indefinite oval form in general.

b. The large spherulites (2) are very beautiful, the outer zone (radiate) of a delicate greenish yellow, the nucleus of a brownish-yellow, and the intermediate zone generally clear.

c. A layer of densely packed bodies, oblong or oval in form.

d. Spherulites generally similar to *b*, but smaller, much more stained of a brownish-yellow, and with more defined nuclei.

Polarization. The spherulites show a clearly radiate polarization, with rotation of a dark cross on turning either of the prisms; the intermediate ground shows the irregular semi-crystalline structure.

3. Clear zone, with little yellowish, dark, squarish specks.

Polarization. Irregular, semi-crystalline.

4. Row of closely touching spherulites with large nucleus and defined margin, rather furry in character (3). Margins and nuclei brown; intermediate space brownish-yellow.

Polarization. Radiate, as in the spherulites 2 *b*.

(This is a short brown band which does not extend down through the whole thickness of the specimen.)

5. Generally clear ground, with a brownish cloudy appearance in parts.

Polarization. Indefinite semi-crystalline.

6 a. On a hazy ground may be seen the cloudy margins of separately crystalline spaces.

Polarization. Definite semi-crystalline.*

6 b. A clear band with very indefinite polarization.

7. A clearish zone with somewhat of a brown mottled appearance (light clouds of brown coloring matter).

Polarization. Indefinite semi-crystalline.

8. Zone of brownish bodies (this is a fine brown line, about the middle of the section in the specimen).

a. Yellowish-brown nucleated disks.

b. Smaller, scattered, and *generally* non-nucleated disks.

c. Generally non-nucleated.

Polarization. The disks are too minute to show separate polarization effects, but the ground exhibits the indefinite semi-crystalline.

9. Ground showing indefinite semi-crystalline polarization.

10. Irregular line of furry-looking yellowish disks.

11. Zone traversed by a series of generally parallel and faint lines of a brownish-yellow. These are apparently lines produced by coloring matter alone,—at any rate, not by *visible* disks of any kind.

Polarization. Tolerably definite, and limited by the cross lines (6).

12. Dark-brown flocculent-looking matter, as if growing out from a well-defined line, looking like a moss-growth.

13. Defined crystalline interlocked spaces.

Polarization. Definite semi-crystalline.

* By '*indefinite semi-crystalline*' is meant the breaking up of the ground under crossed prisms with sheaves (5) of various colors not clearly margined.

By '*definite semi-crystalline*' is meant the breaking up of the ground under crossed prisms with a mosaic (4) of various colors clearly margined.

By '*semi-crystalline*' is meant the interference of crystalline spaces with one another, so as to prevent a perfect crystalline form being assumed.

14. Generally, not clearly defined spaces; central part rather a granular look (spaces very small).

Polarization. Under crossed prisms breaking up into tolerably definite semi-crystalline spaces.

SPECIMEN B.

B 1. In the slice taken from this side there seems to be frequently a great tendency to spherulitic arrangement, as shown by the polarization phenomena. In parts of the white quartz, where the polarization appearance is like that of a mosaic pavement, there is even a semi-spherulitic structure. In other parts there are many spherulites on white and yellowish ground.

Between the many parallel lines of a yellowish color the polarization (7) effect is that of fibrous colored sheaves.

Here (8) there is a central clear band (*b*); between it and (*a*) a fine granular line with some larger granules (or very minute spherulites). The part (*a*) is carious, apparently with glass cavities. On the other side of the clear band, at *c*, are half-formed and adherent spherulites; the central (shaded) parts are yellow, and the outer coat, the intermediate portion clearish.

B 2. The slice from the end of the specimen shows the same general structure.

The general tendency to spherulitic arrangement is well seen in polarized light, dark crosses frequently traversing the curved structures.

Here (in Fig. 9) the portion represented on the left was situated close to the other portion, where the point of the arrow terminates, both crosses appearing together, and revolving in rotation of one of the prisms.

SPECIMEN C.

The slice from this specimen presents far less variety than in the other cases. There are two sets of structural lines—

those radiate (10), and those curved and circumferential (11). The latter structure is exceedingly fine and delicate, and not readily seen, even with a high power, owing to the fine radii not being marked out by any color, the whole section being very clear and white.

A more decidedly nucleated structure is seen in part 12.

In (13) is a very curious example of a somewhat more glassy portion protruding in finger-like masses into a radiate, clear, and largely spherical portion.

2. These notes of Mr. Clifton Ward's contain the first accurate statements yet laid before mineralogists respecting the stellar crystallization of silica, although that mode of its formation lies at the very root of the structure of the greater mass of amygdaloidal rocks, and of all the most beautiful phenomena of agates. And indeed I have no words to express the wonder with which I see work like that done by Cloi-zeaux in the measurement of quartz angles, conclude only in the construction of the marvelous diagram, as subtle in execution as amazing in its accumulated facts,* without the least reference to the conditions of varying energy which produce the spherical masses of chalcedony! He does not even use the classic name of the mineral, but coins the useless one, Geyselite, for the absolutely local condition of the Iceland sinter.

3. And although, in that formation, he went so near the edge of Mr. Clifton Ward's discovery as to announce that "leur masse se compose ellemême de sphères enchâssées dans une sorte de pâte gélatineuse," he not only fails, on this suggestion, to examine chalcedonic structure generally, but arrested himself finally in the pursuit of his inquiry by quietly asserting, "ce genre de structure n'a jamais été rencontré jusqu'ici sur aucune autre variété de silice naturelle ou artificielle,"—the fact being that there is no chalcedonic mass whatever, which does *not* consist of spherical concretions more or less perfect, inclosed in a "pâte gélatineuse."

4. In Professor Miller's manual, which was the basis of

* Facing page 8 of the 'Manuel de Mineralogie.'

Cloizeaux's, chalcedony is stated to appear to be a mixture of amorphous with crystalline silica! and its form taken no account of. Malachite might just as well have been described as a mixture of amorphous with crystalline carbonate of copper!

5. I will not, however, attempt to proceed farther in this difficult subject until Mr. Clifton Ward has time to continue his own observations. Perhaps I may persuade him to let me have a connected series of figured examples, from pure stellar quartz down to entirely fluent chalcedony, to begin the next volume of Deucalion with;—but I must endeavor, in closing the present one, to give some available summary of its contents, and clearer idea of its purpose; and will only trespass so far on my friend's province as to lay before him, together with my readers, some points noted lately on another kind of semi-crystallization, which bear not merely on the domes of delicate chalcedony, and pyramids of microscopic quartz, but on the far-seen chalcedony of the Dôme du Goute, and the prismatic towers of the Cervin and dark peak of Aar.

CHAPTER XIV.

SCHISMA MONTIUM.

1. THE index closing this volume * of Deucalion, drawn up by myself, is made as short as possible, and classifies the contents of the volume so as to enable the reader to collect all notices of importance relating to any one subject, and to collate them with those in my former writings. That they need such assemblage from their desultory occurrence in the previous pages, is matter of sincere regret to me, but inevitable, since the writing of a systematic treatise was incompatible with the more serious work I had in hand, on greater subjects. The 'Laws of Fésolé' alone might well occupy all the hours I can now permit myself in severe thought. But any student of intelligence may perceive that one inherent cause of the divided character of this book is its function of advance in parallel columns over a wide field; seeing that, on no fewer than four subjects, respecting which geological theories and assertions have long been alike fantastic and daring, it has shown at least the necessity for revisal of evidence, and, in two cases, for reversal of judgment.

2. I say "it has shown," fearlessly; for at my time of life, every man of ordinary sense, and probity, knows what he has done securely, and what perishably. And during the last twenty years, none of my words have been set down untried; nor has any opponent succeeded in overthrowing a single sentence of them.

3. But respecting the four subjects above alluded to (denudation, cleavage, crystallization, and elevation, as causes of mountain form), proofs of the uncertainty, or even falseness, of current conceptions have been scattered at intervals

* Refers to the original text. See general index.

through my writings, early and late, from 'Modern Painters' to the 'Ethics of the Dust': and, with gradually increasing wonder at the fury of so-called 'scientific' speculation, I have insisted, year by year, on the undealt with, and usually undreamt of, difficulties which lay at the threshold of secure knowledge in such matters;—trusting always that some ingenuous young reader would take up the work I had no proper time for, and follow out the investigations of which the necessity had been indicated. But I waited in vain; and the rough experiments made at last by myself, a year ago, of which the results are represented in Plate VI. of this volume, are actually the first of which there is record in the annals of geology, made to ascertain the primary physical conditions regulating the forms of contorted strata. The leisure granted me, unhappily, by the illness which has closed my relations with the University of Oxford, has permitted the pursuit of these experiments a little farther; but I must defer account of their results to the following volume, contenting myself with indicating, for conclusion of the present one, to what points of doubt in existing theories they have been chiefly directed.

4. From the examination of all mountain ground hitherto well gone over, one general conclusion has been derived,—that wherever there are high mountains, there are hard rocks. Earth, at its strongest, has difficulty in sustaining itself above the clouds; and could not hold itself in any noble height, if knitted infirmly.

5. And it has farther followed, in evidence, that on the flanks of these harder rocks, there are yielding beds, which appear to have been, in some places, compressed by them into wrinkles and undulations;—in others, shattered, and thrown up or down to different levels. My own interest was excited, very early in life,* by the forms and fractures in the moun-

* I well yet remember my father's rushing up to the drawing-room at Herne Hill, with wet and flashing eyes, with the proof in his hand of the first sentences of his son's writing ever set in type,—'Inquiries on the Causes of the Color of the Water of the Rhone' (Magazine of

tain groups of Savoy; and it happens that the undulatory action of the limestone beds on each shore of the Lake of Annecy, and the final rupture of their outmost wave into the precipice of the Salève, present examples so clear, and so imposing, of each condition of form, that I have been led, without therefore laying claim to any special sagacity, at least into clearer power of putting essential questions respecting such phenomena than geologists of far wider experience, who have confused or amused themselves by collecting facts indiscriminately over vast spaces of ground. I am well convinced that the reader will find more profit in following my restricted steps; and satisfying or dissatisfying himself, with precision, respecting forms of mountains which he can repeatedly and exhaustedly examine.

6. In the uppermost figure in Plate VII., I have enlarged and colored the general section given rudely above in Figure 1, page 8, of the Jura and Alps, with the intervening plain. The central figure is the southern, and the lowermost figure, which should be conceived as joining it on the right hand, the northern, series of the rocks composing our own Lake district, drawn for me with extreme care by the late Professor Phillips, of Oxford.

I compare, and oppose, these two sections, for the sake of fixing in the reader's mind one essential point of difference among many resemblances; but that they may not, in this comparison, induce any false impressions, the system of color which I adopt in this plate, and henceforward shall observe, must be accurately understood.

7. At page 95 above, I gave my reasons for making no endeavor, at the Sheffield Museum, to certify the ages of rocks. For the same reason, in practical sections I concern myself only with their nature and position; and color granite

Natural History, September, 1834; followed next month by 'Facts and Considerations on the Strata of Mont Blanc, and on some Instances of Twisted Strata observable in Switzerland.' I was then fifteen.) My mother and I eagerly questioning the cause of his excitement,—“It's—it's—only *print!*” said he. Alas! how much the 'only' meant!



Plate VII
 THE STRATA OF SWITZERLAND AND CUMBERLAND.

pink, slate purple, and sandstone red, without inquiring whether the granite is ancient or modern,—the sand trias or pliocene, and the slate Wenlock or Caradoc; but with this much only of necessary concession to recognized method, as to color with the same tint all rocks which unquestionably belong to the same great geological formation, and vary their mineralogical characters within narrow limits. Thus, since, in characteristic English sections, chalk may most conveniently be expressed by leaving it white, and some of the upper beds of the Alps unquestionably are of the same period, I leave them white also, though their general color may be brown or gray, so long as they retain cretaceous or marly consistence; but if they become metamorphic, and change into clay slate or gneiss, I color them purple, whatever their historical relations may be.

8. And in all geological maps and sections given in 'Deucalion,' I shall limit myself to the definition of the twelve following formations by the twelve following colors. It is enough for any young student at first to learn the relations of these great orders of rock and earth:—once master of these, in any locality, he may split his beds into any complexity of finely laminated chronology he likes;—and if I have occasion to split them for him myself, I can easily express their minor differences by methods of engraving. But, primarily, let him be content in the recognition of these twelve territories of Demeter, by this following color heraldry:—

- 9.
- | | | |
|--------------------------------------|-------|----------------|
| 1. Granite will bear in the field, | _____ | Rose-red. |
| 2. Gneiss and mica-slate | _____ | Rose-purple. |
| 3. Clay-slate | _____ | Violet-purple. |
| 4. Mountain-limestone | _____ | Blue. |
| 5. Coal measures and mill-stone grit | _____ | Gray. |
| 6. Jura limestone | _____ | Yellow. |
| 7. Chalk | _____ | White. |

8. Tertiaries forming hard rock	_____	Scarlet.
9. Tertiary sands and clays	_____	Tawny.
10. Eruptive rocks not defi- nitely volcanic	_____	Green.
11. Eruptive rocks, defi- nitely volcanic, but at rest	_____	Green, spotted red.
12. Volcanic rocks, active	_____	Black, spotted red.

10. It will at once be seen, by readers of some geological experience, that approximately, and to the degree possible, these colors are really characteristic of the several formations; and they may be rendered more so by a little care in modifying the tints. Thus the 'scarlet' used for the tertiaries may be subdued as much as we please, to what will be as near a sober brown as we can venture without confusing it with the darker shades of yellow; and it may be used more pure to represent definitely red sandstones or conglomerates; while, again, the old red sands of the coal measures may be extricated from the general gray by a tint of vermilion which will associate them, as mineral substances, with more recent sand. Thus, in the midmost section of Plate VII., this color is used for the old red conglomerates of Kirby Lonsdale. And again, keeping pure light blue for the dated mountain limestones, which are indeed, in their emergence from the crisp turf of their pastures, gray, or even blue in shade, to the eye, a deeper blue may be kept for the dateless limestones which are associated with the metamorphic beds of the Alps; as for my own Coniston Silurian limestone, which may be nearly as old as Skiddaw.

11. The color called 'tawny,' I mean to be as nearly that of ripe wheat as may be, indicating arable land or hot prairie; while, in maps of northern countries, touched with points of green, it may pass for moorland and pasture; or, kept in the hue of pale vermilion, it may equally well represent desert alluvial sand. Finally, the avoidance of the large masses of fierce and frightful scarlet which render modern geological

maps intolerable to a painter's sight, (besides involving such geographical incongruities as the showing Iceland in the color of a red-hot coal,) and the substitution over all volcanic districts, of the color of real greenstone, or serpentine, for one which resembles neither these, nor the general tones of dark color either in lava or cinders, will certainly render all geological study less injurious to the eyesight and less harmful to the taste.

12. Of the two sections in Plate VII., the upper one is arranged from Studer, so as to exhibit in one view the principal phenomena of Alpine structure according to that geologist. The cleavages in the central granite mass are given, however, on my own responsibility, not his. The lower section was, as aforesaid, drawn for me by my kind old friend Professor Phillips, and is, I doubt not, entirely authoritative. In all great respects, the sections given by Studer are no less so; but they are much ruder in drawing, and can be received only as imperfect summaries—perhaps, in their abstraction, occasionally involving some misrepresentation of the complex facts. For my present purposes, however, they give me all the data required.

13. It will instantly be seen, on comparing the two groups of rocks, that although nearly similar in succession, and both suggesting the eruptive and elevatory force of the granitic central masses, there is a wide difference in the manner of the action of these on the strata lifted by them. In the Swiss section, the softer rocks seem to have been crushed aside, like the ripples of water round any submersed object rising to the surface. In the English section, they seem to have undergone no such torsion, but to be lifted straight, as they lay, like the timbers of a gabled roof. It is true that, on the larger scale of the Geological Survey, contortions are shown at most of the faults in the Skiddaw slate; but, for the reasons already stated, I believe these contortions to be more or less conventionally represented; and until I have myself examined them, will not modify Professor Phillips' drawing by their introduction.

Some acknowledgment of such a structure is indeed given by him observably in the dark slates on the left in the lowermost section; but he has written under these undulatory lines "quartz veins," and certainly means them, so far as they are structural, to stand only for ordinary gneissitic contortion in the laminated mass, and not for undulating strata.

14. Farther. No authority is given me by Studer for dividing the undulatory masses of the outer Alps by any kind of cleavage-lines. Nor do I myself know examples of fissile structure in any of these mountain masses, unless where they are affected by distinctly metamorphic action, in the neighborhood of the central gneiss or mica-schist. On the contrary, the entire courses of the Cumberland rock, from Kirby Lonsdale to Carlisle, are represented by Professor Phillips as traversed by a perfectly definite and consistent cleavage throughout, dipping steeply south, in accurately straight parallel lines, and modified only, in the eruptive masses, by a vertical cleavage, characterizing the pure granite centers.

15. I wish the reader to note this with especial care, because the cleavage of secondary rock has been lately attributed, with more appearance of reason than modern scientific theories usually possess, to lateral pressure, acting in a direction perpendicular to the lamination. It seems, however, little calculated to strengthen our confidence in such an explanation, to find the Swiss rocks, which appear to have been subjected to a force capable of doubling up leagues of them backwards and forwards like a folded map, wholly without any resultant schistose structure; and the English rocks, which seem only to have been lifted as a raft is raised on a wave, split across, for fifty miles in succession, by foliate structures of the most perfect smoothness and precision.

16. It might indeed be alleged, in deprecation of this objection, that the dough or batter of which the Alps were composed, mostly calcareous, did not lend itself kindly to lamination, while the mud and volcanic ashes of Cumberland were of a slippery and unctuous character, easily susceptible of rearrangement under pressure. And this view receives strong

support from the dexterous experiment performed by Professor Tyndall in 1856, and recorded, as conclusive, in 1872,* wherein, first warming some wax, then pressing it between two pieces of glass, and finally freezing it, he finds the congealed mass delicately laminated; and attributes its lamination to the "lateral sliding of the particles over each other." * But with his usual, and quite unrivaled, incapacity of following out any subject on the two sides of it, he never tells us, and never seems to have asked himself, how *far* the wax was flattened, and how far, therefore, its particles had been forced to slide;—nor, during the sixteen years between his first and final record of the experiment, does he seem ever to have used any means of ascertaining whether, under the observed conditions, real compression of the substance of the wax had taken place at all! For if not, and the form of the mass was only altered from a lump to a plate, without any increase of its density, a less period for reflection than sixteen years might surely have suggested to Professor Tyndall the necessity, in applying his result to geological matters, of providing mountains which were to be squeezed in one direction, with room for expansion in another.

17. For once, however, Professor Tyndall is not without fellowship in his hesitation to follow the full circumference of this question. Among the thousands of passages I have read in the works even of the most careful and logical geologists,—even such as Humboldt and De Saussure,—I remember *not one* distinct statement † of the degree in which they

* 'Forms of water,' (King and Co.,) 1872, p. 190.

† As these sheets are passing through the press, I receive the following most important note from Mr. Clifton Ward: "With regard to the question whether cleavage is necessarily followed by a reduction in bulk of the body cleaved, the following cases may help us to form an opinion. *Crystalline* volcanic rocks (commonly called trap), as a rule, are not cleaved, though the beds, uncrystalline in character, above and below them, may be. When, however, a trap is highly vesicular, it is sometimes well cleaved. May we not, therefore, suppose that in a rock, *wholly* crystalline, the particles are too much interlocked to take up new positions? In a purely fragmentary rock, how-

supposed the lamination of any given rock to imply real increase of its density, or only the lateral extension of its mass.

18. And the student must observe that in many cases lateral extension of mass is precisely avoided by the very positions of rocks which are supposed to indicate the pressure sustained. In Mr. Woodward's experiment with sheets of paper, for instance, (above quoted, p. 12*) there is neither increase of density nor extension of mass, in the sheets of paper. They remain just as thick as they were,—just as long and broad as they were. They are only altered in direction, and no more compressed, as they bend, than a flag is compressed by the wind that waves it. In my own experiments with dough, of course the dough was no more compressible than so much water would have been. Yet the language of the geologists who attribute cleavage to pressure might usually leave their readers in the notion that clay can be reduced like steam; and that we could squeeze the sea down to half its depth by first mixing mud with it! Else, if they really comprehended the changes of form rendered necessary by proved directions of pressure, and did indeed mean that the paste of primitive slate had been 'flattened out' (in Professor Tyndall's words) as a cook flattens out her pastry-crust with a rolling-pin, they would surely sometimes have asked themselves,—and occasionally taken the pains to tell

ever, the particles seem to have more freedom of motion; their motion under pressure leads to a new and more parallel arrangement of particles, each being slightly flattened or pulled out along the planes of new arrangement. This, then, points to a diminution of bulk at any rate in a direction at right angles to the planes of cleavage. The tendency to new arrangement of particles *under pressure points to accommodation under altered circumstances of space.* In rocks composed of fragments, the interspaces, being for the most part larger than the intercrystalline spaces of a trap rock, more freely allow of movement and new arrangement."

* There is a double mistake in the fifth and sixth lines from the top in that page, I meant to have written, "from a length of four inches into the length of one inch,"—but I believe the real dimensions should have been "a foot crushed into three inches."

their scholars,—where the rocks in question had been flattened to. Yet in the entire series of Swiss sections (upwards of a hundred) given by Studer in his *Alpine Geology*, there is no hint of such a difficulty having occurred to him;—none, of his having observed any actual balance between diminution of bulk and alteration of form in contorted beds;—and none, showing any attempt to distinguish mechanical from crystalline foliation. The cleavages are given rarely in any section, and always imperfectly.

19. In the more limited, but steadier and closer, work of Professor Phillips on the geology of Yorkshire, the solitary notice of “that very obscure subject, the cleavage of slate” is contained in three pages, (5 to 8 of the first chapter,) describing the structure of a single quarry, in which the author does not know, and cannot eventually discover, whether the rock is stratified or not! I respect, and admire, the frankness of the confession; but it is evident that before any affirmation of value, respecting cleavages, can be made by good geologists, they must both ascertain many laws of pressure in viscous substances at present unknown; and describe a great many quarries with no less attention than was given by Professor Phillips to this single one.

20. The experiment in wax, however, above referred to as ingeniously performed by Professor Tyndall, is not adduced in the ‘Forms of Water’ for elucidation of cleavage in rocks, but of ribbon structure in ice—(of which more presently). His first display of it, however, was, I believe, in the lecture delivered in 1856 at the Royal Institution,—this, and the other similar experiments recorded in the Appendix to the ‘Glaciers of the Alps,’ being then directed mainly to the confusion of Professor Sedgwick, in that the Cambridge geologist had—with caution—expressed an opinion that cleavage was a result of crystallization under polar forces.

21. Of that suggestion Professor Tyndall complimentarily observed that “it was a bold stretch of analogies,” and condescendingly—that “it had its value—it has drawn attention to the subject.” Presently, translating this too

vulgarly intelligible statement into his own sublime language, he declares of the theory in debate that it, and the like of it, are "a dynamic power which operates against intellectual stagnation." How a dynamic power differs from an undynamic one—(and, presumably, also, a potestatic dynamic from an unpotestatic one;) and how much more scientific it is to say, instead of—that our spoon stirs our porridge,—that it "operates against the stagnation" of our porridge, Professor Tyndall trusts the reader to recognize with admiration. But if any stirring, or skimming, or other operation of a duly dynamic character, could have clarified from its scum of vanity the pease-porridge of his own wits, Professor Tyndall would have felt that men like the Cambridge veteran,—one of the very few modern men of science who possessed real genius,—stretch no analogies farther than they will hold; and, in this particular case, there were two facts, familiar to Sedgwick, and with which Professor Tyndall manifests no acquaintance, materially affecting every question relating to cleavage structure.

22. The first, that all slates whatever, among the older rocks, are more or less metamorphic; and that all metamorphism implies the development of crystalline force. Neither the chialtolite in the slate of Skiddaw, nor the kyanite in that of St. Gothard, could have been formed without the exertion, through the whole body of the rock, of crystalline force, which, extracting some of its elements, necessarily modifies the structure of the rest. The second, that slate-quarries of commercial value, fortunately rare among beautiful mountains, owe their utility to the unusual circumstance of cleaving, over the quarryable space, practically in one direction only. But such quarryable spaces extend only across a few fathoms of crag, and the entire mass of the slate mountains of the world is cloven, not in one, but in half a dozen directions, each separate and explicit; and requiring, for their production on the pressure theory, the application of half a dozen distinct pressures, of which none shall neutralize the effect of any other! That six applications of various pressures, at

various epochs, might produce six cross cleavages, may be conceived without unpardonable rashness, and conceded without perilous courtesy; but before pursuing the investigation of this hexfoiled subject, it would be well to ascertain whether the cleavage of any rock whatever does indeed accommodate itself to the calculable variations of a single pressure, applied at a single time.

23. Whenever a bed of rock is bent, the substance of it on the concave side must be compressed, and the substance of it on the convex side, expanded. The degree in which such change of structure must take place may be studied at ease in one's arm-chair, with no more apparatus than a stick of sealing-wax and a candle; and as soon as I am shown a bent bed of any rock with distinct lamination on its concave side, traceably gradated into distinct crevassing on its convex one, I will admit without farther debate the connection of foliation with pressure.

24. In the meantime, the delicate experiments by the conduct of which Professor Tyndall brought his audiences into what he is pleased to call "contact with facts" (in older times we used to say 'grasp of facts'; modern science, for its own part prefers, not unreasonably, the term 'contact,' expressive merely of occasional collision with them,) must remain inconclusive. But if in the course of his own various 'contact with facts' Professor Tyndall has ever come across a bed of slate squeezed between two pieces of glass—or anything like them—I will thank him for a description of the locality. All metamorphic slates have been subjected assuredly to heat—probably to pressure; but (unless they were merely the shaly portions of a stratified group) the pressure to which they have been subjected was that of an irregular mass of rock ejected in the midst of them, or driven fiercely against them; and their cleavage—so far as it is indeed produced by that pressure, must be such as the iron of a target shows round a shell;—and not at all representable by a film of candle-droppings.

25. It is further to be observed,—and not without increas-

ing surprise and increasing doubt,—that the experiment was shown, on the first occasion, to explain the lamination of slate, and on the second, to explain the ribbon structure of ice. But there are no ribbons in slate, and there is no lamination in ice. There are no regulated alternations of porous with solid substance in the one; and there are no constancies of fracture by plane surfaces in the other; moreover—and this is to be chiefly noted,—slate lamination is always straight; glacier banding always bent. The structure of the pressed wax might possibly explain one or other of these phenomena; but could not possibly explain both, and does actually explain neither.

26. That the arrangement of rock substance into fissile folia does indeed take place in metamorphic aluminous masses under some manner of pressure, has, I believe, been established by the investigations both of Mr. Sorby and of Mr. Clifton Ward. But the reasons for continuity of parallel cleavage through great extents of variously contorted beds;—for its almost uniform assumption of a high angle;—for its as uniform non-occurrence in horizontal laminæ under vertical pressure, however vast;—for its total disregard of the forces causing upheaval of the beds;—and its mysteriously deceptive harmonies with the stratification, if only steep enough, of neighboring sedimentary rock,—remain to this hour, not only unassigned, but unsought.

27. And it is difficult for me to understand either the contentment of geologists with this state of things, or the results on the mind of ingenuous learners, of the partial and more or less contradictory information hitherto obtainable on the subject. The section given in the two lower figures of Plate VII. was drawn for me, as I have already said, by my most affectionately and reverently remembered friend, Professor Phillips, of Oxford. It goes through the entire crest of the Lake district from Lancaster to Carlisle, the first emergent rock-beds being those of mountain limestone, A to B, not steeply inclined, but lying unconformably on the steeply inclined flags and grit of Furness Fells, B to C. In the depres-

sion at C lies Coniston Lake; then follow the masses of Coniston Old Man and Scawfell, C to D, sinking to the basin of Derwentwater just after the junction, at Grange, of their volcanic ashes with the Skiddaw slate. Skiddaw himself, and Carrock Fell, rise between D and E; and above E, at Caldbeck, again the mountain limestone appears in unconformable bedding, declining under the Trias of the plain of Carlisle, at the northern extremity of which a few rippled lines do service for the waves of Solway.

28. The entire ranges of the greater mountains, it will be seen, are thus represented by Professor Phillips as consisting of more or less steeply inclined beds, parallel to those of the Furness shales; and traversed by occasional cleavages at an opposite angle. But in the section of the Geological Survey, already referred to, the beds parallel to the Furness shales reach only as far as Wetherlam, and the central mountains are represented as laid in horizontal or slightly basin-shaped swirls of ashes, traversed by ejected trap, and divided by no cleavages at all, except a few vertical ones indicative of the Tilberthwaite slate quarries.

29. I think it somewhat hard upon me, now that I am sixty years old, and short of breath in going up hills, to have to compare, verify for myself, and reconcile as I may, these entirely adverse representations of the classical mountains of England:—no less than that I am left to carry forward, in my broken leisure, the experiments on viscous motion instituted by James Forbes thirty years ago. For the present, however, I choose Professor Phillips' section as far the most accurately representative of the general aspect of matters, to my present judgment; and hope, with Mr. Clifton Ward's good help, to give more detailed drawings of separate parts in the next volume of Deucalion.

30. I am prepared also to find Professor Phillips' drawing in many respects justifiable, by my own former studies of the cleavage structure of the central Alps, which, in all the cases I have examined, I found to be a distinctly crystalline lamination, sometimes contorted according to the rock's own humor,

fantastically as Damascus steel; but presently afterwards assuming inconceivable consistency with the untroubled repose of the sedimentary masses into whose company it had been thrust. The junction of the contorted gneiss through which the gorge of Trient is cleft, with the micaceous marble on which the tower of Martigny is built, is a transition of this kind within reach of the least adventurous traveler; and the junction of the gneiss of the Montanvert with the porous limestone which underlies it, is certainly the most interesting, and the most easily explored, piece of rock-fellowship in Europe. Yet the gneissitic lamination of the Montanvert has been attributed to stratification by one group of geologists, and to cleavage by another, ever since the valley of Chamouni was first heard of: and the only accurate drawings of the beds hitherto given are those published thirty years ago in 'Modern Painters.' I had hoped at the same time to contribute some mite of direct evidence to their elucidation, by sinking a gallery in the soft limestone under the gneiss, supposing the upper rock hard enough to form a safe roof; but a decomposing fragment fell, and so nearly ended the troubles, with the toil, of the old miner who was driving the tunnel, that I attempted no further inquiries in that practical manner.

31. The narrow bed, curved like a sickle, and colored vermilion, among the purple slate, in the uppermost section of Plate VII., is intended to represent the position of the singular band of quartzite and mottled schists ("bunte schiefer,") which, on the authority of Studer's section at page 178 of his second volume, underlies, at least for some thousands of feet, the granite of the Jungfrau; and corresponds, in its relation to the uppermost cliff of that mountain, with the subjacence of the limestone of Les Tines to the aiguilles of Chamouni. I have colored it vermilion in order to connect it in the student's mind with the notable conglomerates of the Black Forest, through which their underlying granites pass into the Trias; but the reversed position which it here assumes, and the relative dominance of the central mass of the

Bernese Alps, if given by Studer with fidelity, are certainly the first structural phenomena which the geologists of Germany should benevolently qualify themselves to explain to the summer society of Interlachen. The view of the Jungfrau from the Castle of Manfred is probably the most beautiful natural vision in Europe; but, for all that modern science can hitherto tell us, the construction of it is supernatural, and explicable only by the Witch of the Alps.

32. In the meantime I close this volume of Deucalion by noting firmly one or two letters of the cuneiform language in which the history of that scene has been written.

There are five conditions of rock cleavage which the student must accustom himself to recognize, and hold apart in his mind with perfect clearness, in all study of mountain form.

I. The Wave cleavage: that is to say, the condition of structure on a vast scale which has regulated the succession of summits. In almost all chains of mountains not volcanic, if seen from a rightly chosen point, some law of sequence will manifest itself in the arrangement of their eminences. On a small scale, the declining surges of pastoral mountain, from the summit of Helvellyn to the hills above Kendal, seen from any point giving a clear profile of them, on Wetherlam or the Old Man of Coniston, show a quite rhythmic, almost formal, order of ridged waves, with their steepest sides to the lowlands; for which the cause must be sought in some internal structure of the rocks, utterly untraceable in close section. On vaster scale, the succession of the aiguilles of Chamonni, and of the great central aiguilles themselves, from the dome of Mont Blanc through the Jorasses, to the low peak of the aiguille de Trient, is again regulated by a harmonious law of alternate cleft and crest, which can be studied rightly only from the far-distant Jura.

The main directions of this vast mountain tendency might always be shown in a moderately good model of any given district, by merely coloring all slopes of ground inclined at a greater angle than thirty degrees, of some darker color than

the rest. No slope of talus can maintain itself at a higher angle than this (compare 'Modern Painters,' volume iv.) and therefore, while the mathematical laws of curvature by aqueous denudation, which were first ascertained and systematized by Mr. Alfred Tylor, will be found assuredly to regulate or modify the disposition of masses reaching no steeper angle, the cliffs and banks which exceed it, brought into one abstracted group, will always display the action of the wave cleavage on the body of the yet resisting rocks.

33. II. The Structural cleavage.

This is essentially determined by the arrangement of the plates of mica in crystalline rocks, or—where the mica is obscurely formed, or replaced by other minerals—by the sinuosities of their quartz veins. Next to the actual bedding, it is the most important element of form in minor masses of crag; but in its influence on large contours, subordinate always to the two next following orders of cleavage.

34. III. The Asphodeline cleavage;—the detachment, that is to say, of curved masses of crag more or less concentric, like the coats of an onion. It is for the most part transverse to the structural cleavage, and forms rounded domes and bending billows of smooth contour, on the flanks of the great foliated mountains, which look exactly as if they had been worn for ages under some river of colossal strength. It is far and away the most important element of mountain form in granitic and metamorphic districts.

35. IV. The Frontal cleavage. This shows itself only on the steep escarpments of sedimentary rock, when the cliff has been produced in all probability by rending elevatory force. It occurs on the faces of nearly all the great precipices in Savoy, formed of Jura limestone, and has been in many cases mistaken for real bedding. I hold it one of the most fortunate chances attending the acquisition of Brantwood, that I have within three hundred yards of me, as I write, jutting from beneath my garden wall, a piece of crag knit out of the Furness shales, showing frontal cleavage of the most

definite kind, and enabling me to examine the conditions of it as perfectly as I could at Bonneville or Annecy.

36. V. The Atomic cleavage.

This is the mechanical fracture of the rock under the hammer, indicating the mode of coherence between its particles, irrespectively of their crystalline arrangements. The conchoidal fractures of flint and calcite, the raggedly vitreous fractures of quartz and corundum, and the earthy transverse fractures of clay slate, come under this general head. And supposing it proved that slaty lamination is indeed owing either to the lateral expansion of the mass under pressure, or to the filling of vacant pores in it by the flattening of particles, such a formation ought to be considered, logically, as the ultimate degree of fineness in the coherence of crushed substance; and not properly a 'structure.' I should call this, therefore, also an 'atomic' cleavage.

37. The more or less rectilinear divisions, known as 'joints,' and apparently owing merely to the desiccation or contraction of the rock, are not included in the above list of cleavages, which is limited strictly to the characters of separation induced either by arrangements of the crystalline elements, or by violence in the methods of rock elevation or sculpture.

38. If my life is spared, and my purposes hold, the second volume of Deucalion will contain such an account of the hills surrounding me in this district, as shall be, so far as it is carried, trustworthy down to the minutest details in the exposition of their first elements of mountain form. And I am even fond enough to hope that some of the youths of Oxford, educated in its now established schools of Natural History and Art, may so securely and consistently follow out such a piece of home study by the delineation of the greater mountains they are proud to climb, as to redeem, at last, the ingenious nineteenth century from the reproach of having fostered a mountaineering club, which was content to approve itself in competitive agilities, without knowing either how an aiguille stood, or how a glacier flowed; and a Geological Society,

which discoursed with confidence on the catastrophes of chaos, and the processes of creation, without being able to tell a builder how a slate split, or a lapidary how a pebble was colored.

APPENDIX.

WHEN I began Deucalion, one of the hopes chiefly connected with it was that of giving some account of the work done by the real masters and fathers of Geology. I must not conclude this first volume without making some reference, (more especially in relation to the subjects of inquiry touched upon in its last chapter,) to the modest life and intelligent labor of a most true pioneer in geological science, Jonathan Otley. Mr. Clifton Ward's sketch of the good guide's life, drawn up in 1877 for the Cumberland Association for the Advancement of Literature and Science, supplies me with the following particulars of it, deeply—as it seems to me—instructive and impressive.

He was born near Ambleside, at Nook House, in Loughrigg, January 19th, 1766. His father was a basket-maker; and it is especially interesting to me, in connection with the resolved retention of Latin as one of the chief elements of education in the system I am arranging for St. George's schools, to find that the Westmoreland basket-maker was a good Latin scholar; and united Oxford and Cambridge discipline for his son with one nobler than either, by making him study Latin and mathematics, while, till he was twenty-five, he worked as his father's journeyman at his father's handicraft. "He also cleaned all the clocks and watches in the neighborhood, and showed himself very skillful in engraving upon copper-plates, seals and coin." In 1791 he moved to Keswick, and there lived sixty-five years, and died, ninety years old and upwards.

I find no notice in Mr. Ward's paper of the death of the father, to whose good sense and firmness the boy owed so much. There was yet a more woeful reason for his leaving

his birthplace. He was in love with a young woman named Anne Youdale, and had engraved their names together on a silver coin. But the village blacksmith, Mr. Bowness, was also a suitor for the maiden's hand; and some years after, Jonathan's niece, Mrs. Wilson, asking him how it was that his name and Anne Youdale's were engraved together on the same coin, he replied, "Oh, the blacksmith beat me."* He never married, but took to mineralogy, watchmaking, and other consolatory pursuits, with mountain rambling—alike discursive and attentive. Let me not omit what thanks for friendly help and healthy stimulus to the earnest youth may be due to another honest Cumberland soul,—Mr. Crosthwaite. Otley was standing one day (before he removed to Keswick) outside the Crosthwaite Museum,† when he was accosted by its founder, and asked if he would sell a curious stick he held in his hand. Otley asked a shilling for it, the proprietor of the Museum stipulating to show him the collection over the bargain. From this time congenial tastes drew the two together as firm and stanch friends.

He lived all his life at Keswick, in lodgings,—recognized as "Jonathan Otley's, up the steps,"—paying from five shillings a week at first, to ten, in uttermost luxury; and being able to give account of his keep to a guinea, up to October 18, 1852,—namely, board and lodging for sixty-one years

* I doubt the orthography of the fickle maid's name, but all authority of antiquaries obliges me to distinguish it from that of the valley. I do so, however, still under protest—as if I were compelled to write Lord Lonsdale, 'Lownsdale,' or the Marquis of Tweeddale, 'Twaddle,' or the victorious blacksmith, 'Beauness.' The latter's family still retain the forge by Elter Water—an entirely distinct branch, I am told, from our blacksmiths of the Dale: see above, pp. 138, 139.

† In that same museum, my first collection of minerals—fifty specimens—total price, if I remember rightly, five shillings—was bought for me, by my father, of Mr. Crosthwaite. No subsequent possession has had so much influence on my life. I studied Turner at his own gallery, and in Mr. Windus's portfolios; but the little yellow bit of "copper ore from Coniston," and the "Garnets" (I never could see more than one!) from Borrowdale, were the beginning of science to me which never could have been otherwise acquired.

and one week, £1325; rent of room extra, fifty-six years, £164 10s. Total keep and roof overhead, for the sixty usefulest of his ninety years, £1489 10s.

Thus housed and fed, he became the friend, and often the teacher, of the leading scientific men of his day,—Dr. Dalton the chemist, Dr. Henry the chemist, Mr. Farey the engineer, Airy the Astronomer Royal, Professor Phillips of Oxford, and Professor Sedgwick of Cambridge. He was the first accurate describer and accurate map-maker of the Lake district; the founder of the geological divisions of its rocks,—which were accepted from him by Sedgwick, and are now finally confirmed;—and the first who clearly defined the separation between bedding, cleavage, and joint in rock,—hence my enforced notice of him in this place. Mr. Ward's memoir gives examples of his correspondence with the men of science above named; both Phillips and Sedgwick referring always to him in any question touching Cumberland rocks, and becoming gradually his sincere and affectionate friends. Sedgwick sate by his death-bed.

I shall have frequent occasion to refer to his letters, and to avail myself of his work. But that work was chiefly crowned in the example he left—not of what is vulgarly praised as *self-help*, (for every noble spirit's watchword is "God us ayde")—but of the rarest of moral virtues, *self-possession*. "In your patience, possess ye your souls."

I should have dwelt at greater length on the worthiness both of the tenure and the treasure, but for the bitterness of my conviction that the rage of modern vanity must destroy in our scientific schoolmen, alike the casket, and the possession.

DEUCALION.

VOL. II.

CHAPTER I.

LIVING WAVES.

1. THE opening of the second volume of Deucalion with a Lecture on Serpents may seem at first a curiously serpentine mode of advance towards the fulfillment of my promise that the said volume should contain an account of the hills surrounding me at Coniston, (above, vol. i., p. 175, § 38). But I am obliged now in all things to follow in great part the leadings of circumstance: and although it was only the fortuitous hearing of a lecture by Professor Huxley which induced me to take up at present the materials I had by me respecting snake motion, I believe my readers will find their study of undulatory forces dealt through the shattered vertebræ of rocks, very materially enlivened, if not aided, by first observing the transitions of it through the adjusted vertebræ of the serpent. I would rather indeed have made this the matter of a detached essay, but my distinct books are far too numerous already; and, if I could only complete them to my mind, would in the end rather see all of them fitted into one colubrine chain of consistent strength, than allowed to stand in any broken or diverse relations.

There are, however, no indications in the text of the lecture itself of its possible use in my geological work. It was written as briefly and clearly as I could, for its own immediate

purpose: and is given here, as it was delivered, with only the insertion of the passages I was forced to omit for want of time.

2. The lecture, as it stands, was, as I have just said, thrown together out of the materials I had by me; most of them for a considerable time; and with the help of such books as I chanced to possess,—chiefly, the last French edition of Cuvier,—Dr. Russell's Indian Serpents,—and Bell's British Reptiles. Not until after the delivery of the lecture for the second time, was I aware of the splendid work done recently by Dr. Gunther, nor had I ever seen drawings of serpents for a moment comparable, both in action and in detail of scale, to those by Mr. Ford which illustrate Dr. Gunther's descriptions; or, in color, and refinement of occasional action, to those given in Dr. Fayrer's *Thanatophidia* of India. The reader must therefore understand that anything generally said, in the following lecture, of modern scientific shortcoming, or error, is not to be understood as applying to any publication by either of these two authors, who have, I believe, been the first naturalists to adopt the artistically and mathematically sound method of delineation by plan and profile; and the first to represent serpent action in true lines, whether of actual curve, or induced perspective.

What follows, then, is the text of what I read, or, to the best of my memory, spoke, at the London Institution.

3. In all my lectures on Natural History at Oxford I virtually divided my subject always into three parts, and asked my pupils, first, to consider what had been beautifully thought about the creature; secondly, what was accurately known of it; thirdly, what was to be wisely asked about it.

First, you observe, what was, or had been, beautifully thought about it; the effect of the creature, that is to say, during past ages, on the greatest human minds. *This*, it is especially the business of a gentleman and a scholar to know. It is a king's business, for instance, to know the meaning of the legend of the basilisk, the King of Serpents, who killed with a look, in order that he may not himself become like



Plate VIII.

"Development." Crocodile latent in Toucan.

a basilisk. But that kind of knowledge would be of small use to a viper-catcher.

Then the second part of the animal's history is—what is truly known of it, which one usually finds to be extremely little.

And the third part of its history will be—what remains to be asked about it—what it now behooves us, or will be profitable to us, to discover.

4. It will perhaps be a weight off your minds to be assured that I shall waive to-night the first part of the subject altogether;—except so far as thoughts of it may be suggested to you by Mr. Severn's beautiful introductory diagram,* and by the references I have to make to it, though shown for the sake of the ivy, not the Eve,—its subject being already explained in my Florentine Guide to the Shepherd's Tower. But I will venture to detain you a few moments while I point out how, in one great department of modern science, past traditions may be used to facilitate, where at present they do but incumber, even the materialistic teaching of our own day.

5. When I was furnishing Brantwood, a few years ago, I indulged myself with two brand-new globes, brought up to all the modern fine discoveries. I find, however, that there's so much in them that I can see nothing. The names are too many on the earth, and the stars too crowded in the heaven. And I am going to have made for my Coniston parish school a series of drawings in dark blue, with golden stars, of one constellation at a time, such as my diagram No. 2, with no names written to the stars at all. For if the children don't know their names without print on their diagram, they won't know them without print on the sky. Then there must be a school-manual of the constellations, which will have the legend of each told as simply as a fairy tale; and the names of the chief stars given on a map of them, corresponding to the blue diagram,—both of course drawn as the stars are

* The Creation of Eve, bas-relief from the tower of Giotto. The photograph may be obtained from Mr. Ward.

placed in the sky; or as they would be seen on a concave celestial globe, from the center of it. The having to look down on the stars from outside of them is a difficult position for children to comprehend, and not a very scientific one, even when comprehended.

6. But to do all this rightly, I must have better outlines than those at present extant. The red diagram, No. 3, which has I hope a little amused you, more than frightened, is an enlargement of the outline given on my new celestial globe, to the head of the constellation Draco. I need not tell you that it is as false to nature as it is foolish in art; and I want you to compare it with the uppermost snake head in No. 4, because the two together will show you in a moment what long chapters of 'Modern Painters' were written to explain,—how the real faculty of imagination is always true, and goes straight to its mark: but people with no imagination are always false, and blunder or drivel about their mark. That red head was drawn by a man who didn't know a snake from a sausage, and had no more imagination in him than the chopped pork of which it is made. Of course he didn't know that, and with a scrabble of lines this way and the other, gets together what he thinks an invention—a knot of gratuitous lies, which you contentedly see portrayed as an instrument of your children's daily education. While—two thousand and more years ago—the people who had imagination enough to believe in Gods, saw also faithfully what was to be seen in snakes; and the Greek workman gives, as you see in this enlargement of the silver drachma of Phæstus, with a group of some six or seven sharp incisions, the half-dead and yet dreadful eye, the flat brow, the yawning jaw, and the forked tongue, which are an abstract of the serpent tribe for ever and ever.

And I certify you that all the exhibitions they could see in all London would not teach your children so much of art as a celestial globe in the nursery, designed with the force and the simplicity of a Greek vase.

7. Now, I have done alike with myths and traditions; and

perhaps I had better forewarn you, in order, what I am next coming to. For, after my first delivery of this lecture, one of my most attentive hearers, and best accustomed pupils, told me that he had felt it to be painfully unconnected,—with much resultant difficulty to the hearer in following its intention. This is partly inevitable when one endeavors to get over a great deal of ground in an hour; and indeed I have been obliged, as I fastened the leaves together, to cut out sundry sentences of adaptation or transition—and run my bits of train all into one, without buffers. But the actual divisions of what I have to say are clearly jointed for all that; and if you like to jot them down from the leaf I have put here at my side for my own guidance, these are the heads of them:—

- I. Introduction—Imaginary Serpents.
- II. The Names of Serpents.
- III. The Classification of Serpents.
- IV. The Patterns of Serpents.
- V. The Motion of Serpents.
- VI. The Poison of Serpents.
- VII. Caution, concerning their Poison.
- VIII. The Wisdom of Serpents.
- IX. Caution, concerning their Wisdom.

It is not quite so bad as the sixteenthly, seventeenthly, and to conclude, of the Duke's chaplain, to Major Dalgetty; but you see we have no time to round the corners, and must get through our work as straightly as we may.

We have got done already with our first article, and begin now with the names of serpents; of which those used in the great languages, ancient and modern, are all significant, and therefore instructive, in the highest degree.

8. The first and most important is the Greek ' ophis,' from which you know the whole race are called, by scientific people, ophidia. It means the thing that sees all round; and Milton is thinking of it when he makes the serpent, looking to see

if Eve be assailable, say of himself, "Her husband, *for I view far round*, not near." Satan says that, mind you, in the person of the Serpent, to whose faculties, in its form, he has reduced himself. As an angel, he would have *known* whether Adam was near or not: in the serpent, he has to look and see. This, mind you further, however, is Miltonic fancy, not Mosaic theology;—it is a poet and a scholar who speaks here,—by no means a prophet.

9. Practically, it has never seemed to me that a snake *could* see far round, out of the slit in his eye, which is drawn large for you in my diagram of the rattlesnake;* but either he or the puffadder, I have observed, seem to see with the backs of their heads as well as the fronts, whenever I am drawing them. You will find the question entered into at some length in my sixth lecture in the 'Eagle's Nest'; and I endeavored to find out some particulars of which I might have given you assurance to-night, in my scientific books; but though I found pages upon pages of description of the scales and wrinkles about snakes' eyes, I could come at no account whatever of the probable range or distinctness in the sight of them; and though extreme pains had been taken to exhibit, in sundry delicate engravings, their lachrymatory glands and ducts, I could neither discover the occasions on which rattlesnakes wept, nor under what consolations they dried their eyes.

10. Next for the word *dracon*, or dragon. We are accustomed to think of a dragon as a winged and clawed creature; but the real Greek dragon, Cadmus's or Jason's, was simply a serpent, only a serpent of more determined vigilance than the ophis, and guardian therefore of fruit, fountain, or fleece. In that sense of guardianship, not as a protector, but as a sentinel, the name is to be remembered as well fitted for the great Greek lawgiver.

The dragon of Christian legend is more definitely malignant, and no less vigilant. You will find in Mr. Anderson's

* See the careful drawing of the eye of *Daboia Russellii*, *Thanatophidia*, p. 14.

supplement to my 'St. Mark's Rest,' "The Place of Dragons," a perfect analysis of the translation of classic into Christian tradition in this respect.

11. III. *Anguis*. The strangling thing, passing into the French 'angoisse' and English 'anguish'; but we have never taken this Latin word for our serpents, because we have none of the strangling or constrictor kind in Europe. It is always used in Latin for the most terrible forms of snake, and has been, with peculiar infelicity, given by scientific people to the most innocent, and especially to those which can't strangle anything. The '*Anguis fragilis*' breaks like a tobacco-pipe; but imagine how disconcerting such an accident would be to a constrictor!

12. IV. *Coluber*, passing into the French 'couleuvre,' a grandly expressive word. The derivation of the Latin one is uncertain, but it will be wise and convenient to reserve it for the expression of coiling. Our word 'coil,' as the French 'cueillir,' is from the Latin 'colligere,' to collect; and we shall presently see that the way in which a snake 'collects' itself is no less characteristic than the way in which it diffuses itself.

13. V. *Serpens*. The winding thing. This is the great word which expresses the progressive action of a snake, distinguishing it from all other animals; or, so far as modifying the motion of others, making them in that degree serpents also, as the elongated species of fish and lizard. It is the principal object of my lecture this evening to lay before you the law of this action, although the interest attaching to other parts of my subject has tempted me to enlarge on them so as to give them undue prominence.

14. VI. *Adder*. This Saxon word, the same as *nieder* or *nether*, 'the groveling thing,' was at first general for all serpents, as an epithet of degradation, 'the deaf adder that stoppeth her ears.' Afterwards it became provincial, and has never been accepted as a term of science. In the most scholarly late English it is nearly a synonym with 'viper,' but that word, said to be a contraction for *vivipara*, bringing

forth the young alive, is especially used in the New Testament of the Pharisees, who compass heaven and earth to make one proselyte. The Greek word used in the same place, *echidna*, is of doubtful origin, but always expresses treachery joined with malice.

15. VII. Snake. German, 'schlange,' the crawling thing; and with some involved idea of sliminess, as in a snail. Of late it has become partly habitual, in ordinary English, to use it for innocent species of serpents, as opposed to venomous; but it is the strongest and best general term for the entire race; which race, in order to define clearly, I must now enter into some particulars respecting classification, which I find little announced in scientific books.

16. And here I enter on the third division of my lecture, which must be a disproportionately long one, because it involves the statement of matters important in a far wider scope than any others I have to dwell on this evening. For although it is not necessary for any young persons, nor for many old ones, to know, even if they *can* know, anything about the origin or development of species, it is vitally necessary that they should know what a species *is*, and much more what a genus or (a better word) *gens*, a race, of animals is.

17. A gens, race, or kinship, of animals, means, in the truth of it, a group which can do some special thing nobly and well. And there are always varieties of the race which do it in different styles,—an eagle flies in one style, a wind-hover in another, but both gloriously,—they are 'Gentiles'—gentlemen creatures, well born and bred. So a trout belongs to the true race, or gens, of fish: he can swim perfectly; so can a dolphin, so can a mackerel: they swim in different styles indeed, but they belong to the true kinship of swimming creatures.

18. Now between the gentes, or races, and between the species, or families, there are invariably links—mongrel creatures, neither one thing nor another,—but clumsy, blundering, hobbling, misshapen things. You are always

thankful when you see one that you are not *it*. They are, according to old philosophy, in no process of development up or down, but are necessary, though much pitiable, where they are. Thus between the eagle and the trout, the mongrel or needful link is the penguin. Well, if ever you saw an eagle or a windhover flying, I am sure you must have sometimes wished to be a windhover; and if ever you saw a trout or a dolphin, swimming, I am sure, if it was a hot day, you wished you could be a trout. But did ever anybody wish to be a penguin?

So, again, a swallow is a perfect creature of a true gens; and a field-mouse is a perfect creature of a true gens; and between the two you have an accurate mongrel—the bat. Well, surely some of you have wished, as you saw them glancing and dipping over lake or stream, that you could for half an hour be a swallow: there have been humble times with myself when I could have envied a field-mouse. But did ever anybody wish to be a bat?

19. And don't suppose that you can invert the places of the creatures, and make the gentleman of the penguin, and the mongrel of the windhover,—the gentleman of the bat, and mongrel of the swallow. All these living forms, and the laws that rule them, are parables, when once you can read; but you can only read them through love, and the sense of beauty; and some day I hope to plead with you a little, of the value of that sense, and the way you have been lately losing it. But as things are, often the best way of explaining the nature of any one creature is to point out the other creatures with whom it is connected, through some intermediate form of degradation. There are almost always two or three, or more, connected gentes, and between each, some peculiar manner of decline and of reascent. Thus, you heard Professor Huxley explain to you that the true snakes were connected with the lizards through helpless snakes, that break like withered branches; and sightless lizards, that have no need for eyes or legs. But there are three other great races of life, with which snakes are connected in other and in yet

more marvelous ways. And I do not doubt being able to show you, this afternoon, the four quarters, or, as astrologers would say, the four houses, of the horizon of serpent development, in the modern view, or serpent relation, in the ancient one. In the first quarter, or house, of his nativity, a serpent is, as Professor Huxley showed you, a lizard that has dropped his legs off. But in the second quarter, or house, of his nativity, I shall show you that he is also a duck that has dropped her wings off. In the third quarter, I shall show you that he is a fish that has dropped his fins off. And in the fourth quarter of ascent, or descent, whichever you esteem it, that a serpent is a honeysuckle, with a head put on.

20. The lacertine relations having been explained to you in the preceding lecture by Professor Huxley, I begin this evening with the Duck. I might more easily, and yet more surprisingly, begin with the Dove; but for time-saving must leave your own imaginations to trace the transition, easy as you may think it, from the coo to the quack, and from the walk to the waddle. Yet that is very nearly one-half the journey. The bird is essentially a singing creature, as a serpent is a mute one; the bird is essentially a creature singing for love, as a puffadder is one puffing for anger; and in the descent from the sound which fills that verse of Solomon's Song, "The time of the singing of birds is come, and the voice of the turtle is heard in our land," to the recollection of the last flock of ducks which you saw disturbed in a ditch, expressing their dissatisfaction in that peculiar monosyllable which from its senselessness has become the English expression for foolish talk,* you have actually got down half-way; and in the next flock of geese whom you discompose, might imagine at first you had got the whole way, from the lark's song to the serpent's hiss.

21. But observe, there is a variety of instrumentation in hisses. Most people fancy the goose, the snake, and we ourselves, are alike in the manner of that peculiar expression of

* The substantive 'quack' in its origin means a person who quacks, —i.e., talks senselessly; see Johnson.

opinion. But not at all. Our own hiss, whether the useful and practical ostler's in rubbing down his horse, or that omnipotent one which—please do not try on me just now!—are produced by the pressure of our soft round tongues against our teeth. But neither the goose nor snake can hiss that way, for a goose has got no teeth, to speak of, and a serpent no tongue, to speak of. The sound which imitates so closely our lingual hiss is with them only a vicious and vindictive sigh,—the general disgust which the creature feels at the sight of us expressed in a gasp. Why do you suppose the puffadder is called puffy? * Simply because he swells himself up to hiss, just as Sir Gorgius Midas might do to scold his footmen, and then actually and literally 'expires' with rage, sending all the air in his body out at you in a hiss. In a quieter way, the drake and gander do the same thing; and we ourselves do the same thing under nobler conditions, of which presently.

22. But now, here's the first thing, it seems to me, we've got to ask of the scientific people, what use a serpent has for his tongue, since it neither wants it to talk with, to taste with, to hiss with, nor, so far as I know, to lick with, † and least of all to sting with,—and yet, for people who do not know the creature, the little vibrating forked thread, flashed out of its mouth, and back again, as quick as lightning, is the most threatening part of the beast; but what is the use of it? Nearly every other creature but a snake can do all sorts of mischief with its tongue. A woman worries with it, a chameleon catches flies with it, a snail files away fruit with it, a hummingbird steals honey with it, a cat steals milk with it, a pholas digs holes in rocks with it, and a gnat digs holes in *us* with it; but the poor snake cannot do any manner of harm with it whatsoever; and what is *his* tongue forked for?

* In more graceful Indian metaphor, the 'Father of Tumefaction.'—
(Note from a friend.)

† I will not take on me to contradict, but I don't in the least believe, any of the statements about serpents licking their prey before they swallow it.

23. I must leave you to find out that at your leisure; and to enter at your pleasure into the relative anatomical questions respecting forms of palate, larynx, and lung, in the dove, the swan, the goose, and the adder,—not unaccompanied by serpentine extension and action in the necks of the hissing birds, which show you what, so to speak, Nature is thinking of. These mechanical questions are all—leather and prunella, or leather and catgut;—the *moral* descent of the temper and meaning in the sound, from a murmur of affection to a gasp of fury, is the real transition of the creature's being. You will find in Kinglake's account of the charge of the Grays in the battle of Balaclava, accurate record of the human murmur of long-restrained rage, at last let loose; and may reflect, also at your leisure, on the modes of political development which change a kindly Scot into a fiery dragon.

24. So far of the fall of the bird-angels from song to hiss: next consider for a minute or two the second phase of catastrophe—from walk to waddle. Walk,—or, in prettier creatures still, the run. Think what a descent it is, from the pace of the lapwing, like a pretty lady's,—“Look, where Beatrice, like a lapwing, runs;” or of the creamcolored courser* of the African desert, whom you might yourself see run, on your own downs, like a little racehorse, if you didn't shoot it the moment it alighted there,—to the respectable, but, to say the least, unimpressive, gait from which we have coined the useful word to ‘waddle.’ Can you remember exactly how a duck does walk? You can best fancy it by conceiving the body of a large barrel carried forward on two short legs, and rolling alternately to each side at every step. Once watch this method of motion attentively, and you will soon feel how near you are to dispensing with legs altogether, and getting the barrel to roll along by itself in a succession of zigzags.

25. Now, put the duck well under water, and he *does* dispense with his legs altogether.

* *Cursorius isabellinus* (Meyer), *Gallicus* (Gould).

There is a bird who—my good friend, and boat-builder, Mr. Bell, tells me—once lived on Coniston Water, and sometimes visits it yet, called the sawbill duck, who is the link, on the ducky side, between the ducks and divers: his shape on the whole is a duck's, but his habits are a diver's,—that is to say, he lives on fish, and he catches them deep under water—swimming, under the surface, a hundred yards at a time.

26. We do not at all enough dwell upon this faculty in aquatic birds. Their feet are only for rowing—not for diving. Those little membranous paddles are no use whatever, once under water. The bird's full strength must be used in diving: he dives with his wings—literally flies under water with his wings;—the great northern diver, at a pace which a well-manned boat can't keep up with. The stroke for progress, observe, is the same as in the air; only, in flying under water, the bird has to keep himself down, instead of keeping himself up, and strikes up with the wing instead of down. Well, the great divers hawk at fish this way, and become themselves fish, or saurians, the wings acting for the time as true fins, or paddles. And at the same time, observe, the head takes the shape, and receives the weapons, of the fish-eating lizard.

Magnified in the diagram to the same scale, this head of the sawbill duck (No. 5) is no less terrible than that of the gavial, or fish-eating crocodile of the Ganges. The gavial passes, by the mere widening of the bones of his beak, into the true crocodile,—the crocodile into the serpentine lizard. I drop my duck's wings off through the penguin; and its beak being now a saurian's, I have only to ask Professor Huxley to get rid of its feet for me, and my line of descent is unbroken, from the dove to the cobra, except at the one point of the gift of poison.

27. An important point, you say? Yes; but one which the anatomists take small note of. Legs, or no legs, are by no means the chief criterion of lizard from snake. Poison, or no poison, is a far more serious one. Why should the mere fact of being quadruped, make the creature chemically

innocent? Yet no lizard has ever been recognized as venomous.

28. A less trenchant, yet equally singular, law of distinction is found in the next line of relationship we have to learn, that of serpents with fish.

The first quite sweeping division of the whole serpent race is into water serpents and land serpents.* A large number, indeed, like damp places; and I suppose all serpents who ever saw water can swim; but still fix in your minds the intense and broad distinction between the sand asp, which is so fond of heat that if you light a real fire near him he will instantly wriggle up to it and burn himself to death in the ashes, and the water hydra, who lives in the open, often in the deep sea, and though just as venomous as the little fiery wretch, has the body flattened vertically at the tail so as to swim exactly as eels do.

29. Not that I am quite sure that even those who go oftenest to Eel Pie Island quite know how eels *do* swim, and still less how they walk; nor, though I have myself seen them doing it, can I tell you how they manage it. Nothing in animal instinct or movement is more curious than the way young eels get up beside the waterfalls of the Highland streams. They get first into the jets of foam at the edge, to be thrown ashore by them, and then wriggle up the smooth rocks—heaven knows how. If you like, any of you, to put on greased sacks, with your arms tied down inside, and your feet tied together, and then try to wriggle up after them on rocks as smooth as glass, I think even the skill-

* Dr. Gunther's division of serpents, ('Reptiles of British India,' p. 166,) the most rational I ever saw in a scientific book, is into five main kinds: burrowing snakes, ground snakes, and tree snakes, on the land; and fresh-water snakes and sea snakes, in the water.

All the water snakes are viviparous; and I believe all the salt-water ones venomous. Of the fresh-water snakes, Dr. Gunther strongly says, "none are venomous," to my much surprise; for I have an ugly recollection of the black river viper in the Zoological Gardens, and am nearly certain that Humboldt speaks of some of the water serpents of Brazil as dangerous.

fulest members of the Alpine Club will agree with me as to the difficulty of the feat; and though I have watched them at it for hours, I do not know how much of serpent, and how much of fish, is mingled in the motion. But observe, at all events, there is no walking here on the plates of the belly: whatever motion is got at all, is by undulation of body and lash of tail: so far as by undulation of body, serpentine; so far as by lash of tail, fishy.

30. But the serpent is in a more intimate sense still, a fish that has dropped its fins off. All fish poison is in the fins or tail, not in the mouth. There are no venomous sharks, no fanged pikes; but one of the loveliest fishes of the south coast, and daintiest too when boiled, is so venomous in the fin, that when I was going eagerly to take the first up that came on the fishing-boat's deck with the mackerel line, in my first day of mackerel fishing, the French pilot who was with me caught hold of my arm as eagerly as if I had been going to lay hold of a viper.

Of the common medusa, and of the sting ray, you know probably more than I do: but have any of us enough considered this curious fact; (have any of you seen it stated clearly in any book of natural history?) that throughout the whole fish race,—which, broadly speaking, pass the whole of their existence in one continual gobble,—you never find any poison put into the teeth; and throughout the whole serpent race, never any poison put into the horns, tail, scales, or skin?

31. Besides this, I believe the aquatic poisons are for the most part black; serpent poison invariably white; and, finally, that fish poison is only like that of bees or nettles, numbing and irritating, but not deadly; but that the moment the fish passes into the hydra, and the poison comes through the teeth, the bite is mortal. In these senses, and in many others, (which I could only trace by showing you the undulatory motion of fins in the seahorse, and of body in the sole,) the serpent is a fish without fins.

32. Now, thirdly, I said that a serpent was a honeysuckle

with a head *put on*. You perhaps thought I was jesting; but nothing is more mysterious in the compass of creation than the relation of flowers to the serpent tribe,—not only in those to which, in ‘*Proserpina*,’ I have given the name *Draconidæ*, and in which there is recognized resemblance in their popular name, *Snapdragon*, (as also in the speckling of the *Snake’s-head Fritillary*,) but much more in those carnivorous, insect-eating, and monstrous, insect-begotten, structures, to which your attention may perhaps have been recently directed by the clever caricature of the possible effects of electric light, which appeared lately in the ‘*Daily Telegraph*.’ But, seven hundred years ago, to the Florentine, and three thousand years ago, to the Egyptian and the Greek, the mystery of that bond was told in the dedication of the ivy to *Dionysus*, and of the dragon to *Triptolemus*. *Giotto*, in the lovely design which is to-night the only relief to your eyes, thought the story of temptation enough symbolized by the spray of ivy round the hazel trunk; and I have substituted, in my definition, the honeysuckle for the ivy, because, in the most accurate sense, the honeysuckle is an ‘*anguis*’—a strangling thing. The ivy stem increases with age, without compressing the tree trunk, any more than the rock, that it adorns; but the woodbine retains, to a degree not yet measured, but almost, I believe, after a certain time, unchanged, the first scope of its narrow contortion; and the growing wood of the stem it has seized is contorted with it, and at last paralyzed and killed.

That there is any essential difference in the spirit of life which gives power to the tormenting tendrils, from that which animates the strangling coils, your recent philosophy denies, and I do not take upon me to assert. The serpent is a honeysuckle* with a head put on; and perhaps some day, in the zenith of development, you may see a honeysuckle getting so much done for it.

* Farther note was here taken of the action of the blossoms of the cranberry, *myrtilla regina*, etc., for more detailed account of which (useless in this place without the diagram) the reader is referred to the sixth number of ‘*Proserpina*.’



Plate IX.

"Development." Short Noses into Long.

33. It is, however, more than time for me now to approach the main parts of our subject, the characteristics of perfect serpent nature in pattern, motion, and poison. First, the pattern—*i. e.*, of their colors, and the arranged masses of them. That, the scientific people always seem to think a matter of no consequence; but to practical persons like me, it is often of very primal consequence to know a viper when they see it, which they can't conveniently, except by the pattern. The scientific people count the number of scales between its eyes and its nose, and inform you duly of the amount; but then a real viper won't stand still for you to count the scales between his eyes and his nose; whereas you can see at a glance, what to us Londoners, at least, should surely be an interesting fact—that it has a pretty letter H on the top of its head (Diag. No. 6). I am a true Cockney myself,—born within ring of Bow; and it is impressive to me thus to see such a development of our dropped Hs. Then, the wavy zigzag down the back, with the lateral spots—one to each bend, are again unmistakable; and a pretty general type of the kind of pattern which makes the poets and the story-tellers, when they need one epithet only, speak always of the 'spotted snake.' Not but that a thrush or a woodpecker are much more spotty than any snakes, only they're a great deal more than that, while the snake can often only be known from the gravel he lies on by the comparative symmetry of his spots.

34. But, whether spotted, zigzagged, or blotched with reticulated stains, this, please observe, is constant in their colors: they are always, in the deadly serpents, lurid, or dull.

The fatal serpents are all of the French school of art,—French gray; the throat of the asp, French blue, the brightest thing I know in the deadly snakes. The rest are all gravel color, mud color, blue-pill color, or in general, as I say, French high-art color. You will find this pointed out long ago in one of the most important chapters of 'Modern Painters,' and I need not dwell upon it now, except just to ask you to observe, not only that puffadders and rattlesnakes have no

resemblance to tulips and roses, but that they never have even the variegated greens and blues of mackerel, or the pinks and crimsons of the char or trout. Fancy the difference it would make in our general conception of creation, if peacocks had gray tails, and serpents golden and blue ones; or if cocks had only black spectacles on their shoulders, and cobras red combs on their heads,—if hummingbirds flew in suits of black, and water-vipers swam in amethyst!*

35. I come now to the fifth, midmost, and chiefly important section of my subject, namely, the manner of motion in serpents. They are distinguished from all other creatures by that motion, which I tried to describe the terror of, in the 'Queen of the Air'—calling the Serpent "a wave without wind,—a current,—but with no fall." A snail and a worm go on their bellies as much as a serpent, but the essential motion of a serpent is undulation,—not up and down, but from side to side; and the first thing you have got to ask about it, is, *why* it goes from side to side. Those who attended carefully to Professor Huxley's lecture, do not need to be again told that the bones of its spine *allow it* to do so; but you were not then told, nor does any scientific book that I know, tell you, *why it needs* to do so. Why should not it go straight the shortest way? Why, even when most frightened and most in a hurry, does it wriggle across the road, or through the grass, with that special action from which you have named your twisting lake in Hyde Park, and all other

* Had I possessed the beautiful volume of the *Thanatophidia*, above referred to, before giving my lecture, I should have quoted from it the instance of one water-viper, *Hydrophis nigrocincta* (*q. purpureocincta*?), who *does* swim in amethyst, if the coloring of the plate may be trusted, rather than the epithet of its name. I should also have recommended to especial admiration the finishing of the angular spots in Dr. Shortt's exquisite drawing of *Hypnale Nepa*.

Mr. Alfred Tylor, on the evening when I last lectured, himself laid before the Zoological Society, for the first time, the theory of relation between the vertebræ and the succession of dorsal bars or spots, which I shall be rejoiced if he is able to establish; but I am quite ready to accept it on his authority, without going myself into any work on the bones.

serpentine things? That is the first thing you have to ask about it, and it never has been asked yet, distinctly.

36. Supposing that the ordinary impression were true, that it thrusts itself forward by the alternate advance and thrust-backward of the plates of its belly, there is no reason why it should not go straight as a centipede does, or the more terrific scarlet centipede or millepede,—a regiment of soldiers. I was myself long under the impression, gathered from scientific books, that it moved in this manner, or as this wise Natural History of Cuvier puts it, “by true reptation;” * but, however many legs a regiment or a centipede may possess, neither body of them can move faster than an individual pair of legs can,—their hundred or thousand feet being each capable of only one step at a time; and, with that allowance, only a certain proportion of pace is possible, and the utmost rapidity of the most active spider, or centipede, does not for an instant equal the dash of a snake in full power. But you—nearly all of you, I fancy—have learned, during the sharp frosts of the last winters, the real secret of it, and will recognize in a moment what the motion is, and only can be, when I show you the real rate of it. It is not often that you can see a snake in a hurry, for he generally withdraws subtly and quietly, even when distinctly seen; but if you put him to his pace either by fear or anger, you will find it is the sweep of the outside edge in skating, carried along the whole body,—that is to say, three or four times over. Outside or inside edge does not, however, I suppose, matter to the snake, the fulcrum being according to the lie of the ground, on the concave or convex side of the curve, and the whole strength of the body is alive in the alternate curves of it.

37. This splendid action, however, you must observe, can

* It cannot be too often pointed out how much would be gained by merely insisting on scientific books being written in plain English. If only this writer had been forbidden to use the word ‘repo’ for ‘crawl,’ and to write, therefore, that serpents were crawling creatures, who moved by true crawlation,—his readers would have seen exactly how far he and they had got.

hardly ever be seen when the snake is in confinement. Half a second would take him twice the length of his cage; and the sluggish movement which you see there, is scarcely ever more than the muscular extension of himself out of his 'collected' coil into a more or less straight line; which is an action imitable at once with a coil of rope. You see that one-half of it can move anywhere without stirring the other; and accordingly you may see a foot or two of a large snake's body moving one way, and another foot or two moving the other way, and a bit between not moving at all; which I, altogether, think we may specifically call 'Parliamentary' motion; but this has nothing in common with the gliding and truly serpentine power of the animal when it exerts itself.

38. (Thus far, I stated the matter in my lecture, apologizing at the same time for the incompleteness of demonstration which, to be convincing, would have taken me the full hour of granted attention, and perhaps with small entertainment to most of my hearers. But, for once, I care somewhat to establish my own claim to have first described serpent motion, just as I have cared much to establish Forbes's claim to have first discerned the laws of glacier flow; and I allow myself, therefore, here, a few added words of clearer definition.

39. When languidly moving in its cage, (or stealthily when at liberty,) a serpent may continually be seen to hitch or catch one part of its body by the edge of the scales against the ground, and from the fulcrum of that fixed piece extend other parts or coils in various directions. But this is not the movement of progress. When a serpent is once in full pace, every part of its body moves with equal velocity; and the whole in a series of waves, varied only in sweep in proportion to the thickness of the trunk. No part is straightened—no part extended—no part stationary. Fast as the head advances, the tail follows, and between both—at the same rate—every point of the body. And the impulse of that body bears it against, and is progressively resilient from, the ground at the edge of each wave, exactly as the blade of the oar in

sculling a boat is progressively resilient from the water. In swimming, the action is seen in water itself, and is partially imitated also by fish in the lash of the tail. I do not attempt to analyze the direction of power and thrust in the organic structure, because I believe, without very high mathematics, it cannot be done even for the inorganic momentum of a stream, how much less for the distributed volition of muscle, which applies the thrust at the exact point of the living wave where it will give most forwarding power.

I am not sure how far the water serpents may sometimes use vertical instead of lateral undulation; but their tails are I believe always vertically flattened, implying only lateral oarstroke. My friend Mr. Henry Severn, however, on one occasion saw a large fresh-water serpent swimming in vertically sinuous folds, with its head raised high above the surface, and making the water foam at its breast, just as a swan would.)

40. Adding thus much to what I said of snake action, I find myself enabled to withdraw, as unnecessary, the question urged, in the next division of the lecture, as to the actual pain inflicted by snake-bite, by the following letter,* since received on the subject, from Mr. Arthur Nicols:—

* A series of most interesting papers, by Mr. Nicols, already published in 'The Country,' and reprinted in 'Chapters from the Physical History of the Earth,' (Kegan, Paul, & Co.), may be consulted on all the points of chiefly terrible interest in serpent life. I have also a most valuable letter describing the utter faintness and prostration, without serious pain, caused by the bite of the English adder, from Mr. Spedding Curwen, adding the following very interesting notes. "The action was, and, so far as I have seen, always is, a distinct hammer-like stroke of the head and neck, with the jaw wide open. In the particular case in question, my brother had the adder hanging by the tail between his finger and thumb, and was lowering it gradually into our botany-box, the lid of which I was holding open. There were already three adders in the box; and in our care lest *they* should try to escape, we did not keep enough watch over the new capture. As his head reached the level of the lid of the box, he made a side-dart at my hand, and struck by the thumb nail. The hold was *quite* momentary, but as the adder was suspended by the tail, that may be no guide to the general rule. The receding of the blood was only to a small distance, say a quarter

“With respect to your remark that there are no descriptions of the sensation produced by snake-poison, in the nature of things, direct evidence of this kind is not easy to get; for, in the first place, the sufferer is very soon past the power of describing the sensations; and, in the second, but a minute fraction of those who are killed by snakes in India come under the hands of medical men. A person of the better class, too, is rarely bitten fatally. The sufferers are those who go about with naked feet, and handle wood, and whose work generally brings them into contact with snakes.

“A friend brought me from India last year several specimens of *Echis carinata*, a species about nine inches long, whose fangs (two on one maxilla in one instance) were as large as this—(a quarter of an inch long, curved), and hard as steel.

“This *Echis* kills more people in its district than all the other snakes together; it is found everywhere. We must also remember how very few persons bitten recover. Indirect evidence seems to point to a comatose state as soon as the poison takes effect; and those writhings of bitten animals which it gives us so much pain to witness are probably not the expression of suffering. In one of Fayer’s cases the patient (bitten by a cobra) complained, when taken to the hospital, of a burning pain in his foot; but as no more is said, I infer he then became incapable of giving any further description. The ‘burning’ is just what I feel when stung by a bee, and the poison soon makes me drowsy. In one instance I lay for an hour feebly conscious, but quite indifferent to the external world; and although that is fourteen years ago, I well remember speculating (albeit I was innocent of any knowledge of snakes then) as to whether their poison had a similar effect. It should not, I think, concern us much to

of an inch round the wound. The remedies I used were whisky, (half a pint, as soon as I got to the nearest inn, and more at intervals all day, also ammonia,) both to drink and to bathe the wound with. The whisky seemed to have no effect: my whole body was cold and deathly, and I felt none of the glow which usually follows a stimulant.”

learn what is the precise character of the suffering endured by any poor human being whose life is passing away under this mysterious influence, but to discover its physiological action."

41. Most wisely and truly said: and indeed, if any useful result is ever obtained for humanity by the time devoted recently, both in experiment and debate, to the question of the origin of life, it must be in the true determination of the meanings of the words Medicine and Poison, and the separation into recognized orders of the powers of the things which supply strength and stimulate function, from those which dissolve flesh and paralyze nerve. The most interesting summed result which I yet find recorded by physicians, is the statement in the appendix to Dr. Fayrer's 'Thanatophidia' of the relative mortal action of the Indian and Australian venomous snakes; the one paralyzing the limbs, and muscles of breathing and speech, but not affecting the heart; the other leaving the limbs free, but stopping the heart.

42. But the most terrific account which I find given with sufficient authority of the effect of snake-bite is in the general article closing the first volume of Russell's 'History of Indian Serpents.' Four instances are there recorded of the bite, not of the common Cobra, but of that called by the Portuguese Cobra di Morte. It is the smallest, and the deadliest, of all venomous serpents known,—only six inches long, or nine at the most, and not thicker than a tobacco-pipe,—and, according to the most definite account, does not move like ordinary serpents, but throws itself forward a foot or two on the ground, in successive springs, falling in the shape of a horse-shoe. In the five instances given of its bite, death follows, in a boy, ten minutes after the bite; and in the case of two soldiers, bitten by the same snake, but one a minute after the other, in their guardroom about one in the morning,—the first died at seven in the morning, the second at noon; in both, the powers of sight gradually failing, and they became entirely blind before death. The snake is described

as of a dark straw color, with two black lines behind the head; small, flat head, with *eyes that shone like diamonds*.

43. Next in fatal power to this serpent,—fortunately so rare that I can find no published drawing of it,—come the Cobra, Rattlesnake, and Trigocephalus, or triangle-headed serpent of the West Indies. Of the last of these snakes, you will find a most terrific account (which I do not myself above one-third believe) in the ninth volume of the English translation of Cuvier's 'Animal Kingdom.' It is a grand book of fifteen volumes, copiously illustrated, and quite unequalled for collection of the things you do not want to know in the body of the text, and for ceasing to be trustworthy the moment it is entertaining. I will read from it a single paragraph concerning the Trigocephalus, of which you may believe as much or as little as you like. "These reptiles possess an activity and vivacity of motion truly alarming. A ferocious instinct induces them to dart impetuously upon passengers, either by suddenly letting go the sort of spring which their body forms, rolled in concentric and superpoised circles, and thus shooting like an arrow from the bow of a vigorous archer, or pursuing them by a series of rapid and multiplied leaps, or climbing up trees after them, or even threatening them in a vertical position."

44. The two other serpents, one used to be able to study at our own Zoological Gardens; but the cobra has now for some years had the glass in front of him whitened, to prevent vulgar visitors from poking sticks at him, and wearing out his constitution in bad temper. I do not know anything more disgraceful to the upper classes of England as a body, than that, while on the one hand their chief recreations, without which existence would not be endurable to them, are gambling in horses, and shooting at birds, they are so totally without interest in the natures and habits of animals in general, that they have never thought of inclosing for themselves a park and space of various kinds of ground, in free and healthy air, in which there should be a perfect gallery, Louvre, or Uffizii, not of pictures, as at Paris, nor of statues, as at

Florence, but of living creatures of all kinds, beautifully kept, and of which the contemplation should be granted only to well-educated and gentle people who would take the trouble to travel so far, and might be trusted to behave decently and kindly to any living creatures, wild or tame.

45. Under existing circumstances, however, the Zoological Gardens are still a place of extreme interest; and I have been able at different times to make memoranda of the ways of snakes there, which have been here enlarged for you by my friends, or by myself; and having been made always with reference to gesture or expression, show you, I believe, more of the living action than you will usually find in scientific drawings: the point which you have chiefly to recollect about the cobra being this curious one—that while the puffadder, and most other snakes, or snakelike creatures, swell when they are angry, the cobra flattens himself; and becomes, for four or five inches of his length, rather a hollow shell than a snake. The beautiful drawing made by Mr. Macdonald in enlarging my sketch from life shows you the gesture accurately, and especially the leveling of the head which gives it the chief terror. It is always represented with absolute truth in Egyptian painting and sculpture; one of the notablest facts to my mind in the entire history of the human race being the adoption by the Egyptians of this serpent for the type of their tyrannous monarchy, just as the cross or the lily was adopted for the general symbol of kingship by the monarchs of Christendom.

46. I would fain enlarge upon this point, but time forbids me: only please recollect this one vital fact, that the nature of Egyptian monarchy, however great its justice, is always that of government by cruel force; and that the nature of Christian monarchy is embodied in the cross or lily, which signify either an authority received by divine appointment, and maintained by personal suffering and sacrifice; or else a dominion consisting in recognized gentleness and beauty of character, loved long before it is obeyed.

47. And again, whatever may be the doubtful meanings

of the legends invented among all those nations of the earth who have ever seen a serpent alive, one thing is certain, that they all have felt it to represent to them, in a way quite inevitably instructive, the state of an entirely degraded and malignant human life. I have no time to enter on any analysis of the causes of expression in animals, but this is a constant law for them, that they are delightful or dreadful to us exactly in the degree in which they resemble the contours of the human countenance given to it by virtue and vice; and this head of the cerastes, and that of the rattlesnake, are in reality more terrific to you than the others, not because they are more snaky, but because they are more human,—because the one has in it the ghastliest expression of malignant avarice, and the other of malignant pride. In the deepest and most literal sense, to those who allow the temptations of our natural passions their full sway, the curse, fabulously (if you will) spoken on the serpent is fatally and to the full accomplished upon ourselves; and as for noble and righteous persons and nations, the words are forever true, “Thou art fairer than the children of *men*: full of grace are thy lips;” so for the ignoble and iniquitous, the saying is forever true, “Thou art fouler than the children of the Dust, and the poison of asps is under thy lips.”

48. Let me show you, in one constant manner of our national iniquity, how literally that is true. Literally, observe. In any good book, but especially in the Bible, you must always look for the literal meaning of everything first,—and act out that, then the spiritual meaning easily and securely follows. Now in the great Song of Moses, in which he foretells, before his death, the corruption of Israel, he says of the wicked race into which the Holy People are to change, “Their wine is the poison of dragons, and the cruel venom of asps.” Their wine,—that is to say, of course, not the wine they drink, but the wine they give to drink. So that, as our best duty to our neighbor is figured by the Samaritan who heals wounds by pouring in oil and wine, our worst sin against our neighbor is in envenoming his wounds by pouring

in gall and poison. "The cruel venom of *Asps*—of that brown gentleman you see there!

49. Now I am sure you would all be very much shocked, and think it extremely wrong, if you saw anybody deliberately poisoning so much as one person in that manner. Suppose even in the interests of science, to which you are all so devoted, I were myself to bring into this lecture-room a country lout of the stupidest,—the sort whom you produce by Church of England education, and then do all you can to get emigrated out of your way; fellows whose life is of no use to them, nor anybody else; and that—always in the interests of science—I were to lance just the least drop out of that beast's tooth into his throat, and let you see him swell, and choke, and get blue and blind, and gasp himself away—you wouldn't all sit quiet there, and have it so done—would you?—in the interests of science.

50. Well; but how then if in your own interests? Suppose the poor lout had his week's wages in his pocket—thirty shillings or so; and, after his inoculation, I were to pick his pocket of them; and then order in a few more louts, and lance their throats likewise, and pick their pockets likewise, and divide the proceeds of, say, a dozen of poisoned louts, among you all, after lecture: for the seven or eight hundred of you, I could perhaps get sixpence each out of a dozen of poisoned louts; yet you would still feel the proceedings painful to your feelings, and wouldn't take the sixpence—would you?

51. But how, if you constituted yourselves into a co-operative Egyptian Asp and Mississippi Rattlesnake Company, with an eloquent member of Parliament for the rattle at its tail? and if, brown asps getting scarce, you brewed your own venom of beautiful aspic brown, with a white head, and persuaded your louts to turn their own pockets inside-out to get it, giving you each sixpence a night,—seven pounds ten a year of lovely dividend!—How does the operation begin to look now? Commercial and amiable—does it not?

52. But how—to come to actual fact and climax—if, in-

stead of a Company, you were constituted into a College of reverend and scholarly persons, each appointed—like the King of Salem—to bring forth the bread and wine of healing knowledge; but that, instead of bread gratis, you gave stones for pay; and, instead of wine gratis, you gave asp-poison for pay,—how then? Suppose, for closer instance, that you became a College called of the Body of Christ, and with a symbolic pelican for its crest, but that this charitable pelican had begun to peck—not itself, but other people,—and become a vampire pelican, sucking blood instead of shedding,—how then? They say it's an ill bird that fouls its own nest. My own feeling is that a well-behaved bird will neither foul its own nest nor another's, but that, finding it in any wise foul, it will openly say so, and clean it.

53. Well, I know a village, some few miles from Oxford, numbering of inhabitants some four hundred louts, in which my own College of the Body of Christ keeps the public-house, and therein sells—by its deputy—such poisoned beer that the Rector's wife told me, only the day before yesterday, that she sent for some to take out a stain in a dress with, and couldn't touch the dress with it, it was so filthy with salt and acid, to provoke thirst; and that while the public-house was there she had no hope of doing any good to the men, who always prepared for Sunday by a fight on Saturday night. And that my own very good friend the Bursar, and we the Fellows, of Corpus, being appealed to again and again to shut up that tavern, the answer is always, "The College can't afford it: we can't give up that fifty pounds a year out of those peasant sots' pockets, and yet 'as a College' live."

Drive that nail home with your own hammers, for I've no more time; and consider the significance of the fact, that the gentlemen of England can't afford to keep up a college for their own sons but by selling death of body and soul to their own peasantry.

54. I come now to my last head of lecture—my caution concerning the wisdom which we buy at such a price. I had not intended any part of my talk to-night to be so grave; and

was forced into saying what I have now said by the appointment of Fors that the said village Rector's wife should come up to town to nurse her brother, Mr. Severn, who drew your diagrams for you. I had meant to be as cheerful as I could; and chose the original title of my lecture, 'A Caution to Snakes,' partly in play, and partly in affectionate remembrance of the scene in 'New Men and Old Acres,' in which the phrase became at once so startling and so charming, on the lips of my much-regarded friend, Mrs. Kendall.

But this one little bit of caution more I always intended to give, and to give earnestly.

55. What the best wisdom of the Serpent may be, I assume that you all possess;—and my caution is to be addressed to you in that brightly serpentine perfection. In all other respects as wise, in one respect let me beg you to be wiser than the Serpent, and not to eat your meat without tasting it,—meat of any sort, but above all the serpent-recommended meat of knowledge. Think what a delicate and delightful meat that used to be in old days, when it was not quite so common as it is now, and when young people—the best sort of them—really hungered and thirsted for it. *Then* a youth went up to Cambridge, or Padua, or Bonn, as to a feast of fat things, of wines on the lees, well-refined. But now, he goes only to swallow,—and, more's the pity, not even to swallow as a glutton does, with enjoyment; not even—forgive me the old Aristotelian Greek, ἡδόμενος τῆ ἀφῆ—pleased with the going down, but in the saddest and exactest way, as a constrictor does, tasting nothing all the time. You remember what Professor Huxley told you—most interesting it was, and new to me—of the way the great boa does not in any true sense swallow, but only hitches himself on to his meat like a coal sack;—well, that's the exact way you expect your poor modern student to hitch himself on to *his* meat, catching and notching his teeth into it, and dragging the skin of him tight over it,—till at last—you know I told you a little ago our artists didn't know a snake from a sausage,—but, Heaven help us, your University doctors are going on at

such a rate that it will be all we can do, soon, to know a *man* from a sausage.

56. Then think again, in old times what a delicious thing a book used to be in a chimney corner, or in the garden, or in the fields, where one used really to read a book, and nibble a nice bit here and there if it was a bride-cakey sort of book, and cut oneself a lovely slice—fat and lean—if it was a round-of-beef sort of book. But what do you do with a book now, be it ever so good? You give it to a reviewer, first to skin it, and then to bone it, and then to chew it, and then to lick it, and then to give it you down your throat like a handful of pilau. And when you've got it, you've no relish for it, after all. And, alas! this continually increasing deadness to the pleasures of literature leaves your minds, even in their most conscientious action, sensitive with agony to the sting of vanity, and at the mercy of the meanest temptations held out by the competition of the schools. How often do I receive letters from young men of sense and genius, lamenting the loss of their strength, and waste of their time, but ending always with the same saying, "I *must* take as high a class as I can, in order to please my father." And the fathers love the lads all the time, but yet, in every word they speak to them, prick the poison of the asp into their young blood, and sicken their eyes with blindness to all the true joys, the true aims, and the true praises of science and literature; neither do they themselves any more conceive what was once the faith of Englishmen; that the only path of honor is that of rectitude, and the only place of honor, the one that you are fit for. Make your children happy in their youth; let distinction come to them, if it will, after well-spent and well-remembered years; but let them now break and eat the bread of Heaven with gladness and singleness of heart, and send portions to them for whom nothing is prepared;—and so Heaven send you its grace—before meat, and after it.

CHAPTER II.

REVISION.

1. IF the reader will look back to the opening chapter of 'Deucalion,' he will see that the book was intended to be a collection of the notices of phenomena relating to geology which were scattered through my former works, systematized so far as might be possible, by such additional studies as time permitted me.

Hitherto, however, the scattered chapters have contained nothing else than these additional studies, which, so far from systematizing what preceded them, stand now greatly in need of arrangement themselves; and still more of some explanation of the incidental passages referring to matters of higher science than geology, in which I have too often assumed that the reader is acquainted with—and in some degree even prepared to admit—the modes of thought and reasoning which have been followed throughout the general body of my writings.

I have never given myself out for a philosopher; nor spoken of the teaching attempted in connection with any subject of inquiry, as other than that of a village showman's "Look—and you shall see." But, during the last twenty years, so many baseless semblances of philosophy have announced themselves; and the laws of decent thought and rational question have been so far transgressed (even in our universities, where the moral philosophy they once taught is now only remembered as an obscure tradition, and the natural science in which they are proud, presented only as an impious conjecture), that it is forced upon me, as the only means of making what I have said on these subjects permanently useful, to put into clear terms the natural philosophy and

natural theology to which my books refer, as accepted by the intellectual leaders of all past time.

2. To this end, I am republishing the second volume of 'Modern Painters,' which, though in affected language, yet with sincere and very deep feeling, expresses the first and foundational law respecting human contemplation of the natural phenomena under whose influence we exist,—that they can only be seen with their properly belonging joy, and interpreted up to the measure of proper human intelligence, when they are accepted as the work, and the gift, of a Living Spirit greater than our own.

3. Similarly, the moral philosophy which underlies all the appeals, and all the accusations, made in the course of my writings on political science, assumes throughout that the principles of Justice and Mercy which are fastened in the hearts of men, are also expressed in entirely consistent terms throughout the higher—(and even the inferior, when undefiled)—forms of all lovely literature and art; and enforced by the Providence of a Ruling and Judging Spiritual Power, manifest to those who desire its manifestation, and concealed from those who desire its concealment.

4. These two Faiths, in the creating Spirit, as the source of Beauty,—in the governing Spirit, as the founder and maintainer of Moral Law, are, I have said, *assumed* as the basis of all exposition and of all counsel, which have ever been attempted or offered in my books. I have never held it my duty, never ventured to think of it even as a permitted right, to proclaim or explain these faiths, except only by referring to the writings, properly called inspired, in which the good men of all nations and languages had concurrently—though at far distant and different times—declared them. But it has become now for many reasons, besides those above specified, necessary for me to define clearly the meaning of the words I have used—the scope of the laws I have appealed to, and, most of all, the nature of some of the feelings possible under the reception of these creeds, and impossible to those who refuse them.

5. This may, I think, be done with the best brevity and least repetition, by adding to those of my books still unfinished, 'Deucalion,' 'Proserpina,' 'Love's Meinie,' and 'Fors Clavigera,' explanatory references to the pieces of theology or natural philosophy which have already occurred in each, indicating their modes of connection, and the chiefly parallel passages in the books which are already concluded; among which I may name the 'Eagle's Nest' as already, if read carefully, containing nearly all necessary elements of interpretation for the others.

6. I am glad to begin with 'Deucalion,' for its title already implies, (and is directly explained in its fourth page as implying,) the quite first principle, with me, of historic reading in divinity, that all nations have been taught of God according to their capacity, and may best learn what farther they would know of Him by reverence for the impressions which He has set on the hearts of each, and all.

I said farther in the same place that I thought it well for the student first to learn the "myths of the Betrayal and Redemption" as they were taught to the heathen world; but I did not say what I meant by the 'Betrayal' and 'Redemption' in their universal sense, as represented alike by Christian and heathen legends.

7. The idea of contest between good and evil spirits for the soul and body of man, which forms the principal subject of all the imaginative literature of the world, has hitherto been the only explanation of its moral phenomena tenable by intellects of the highest power. It is no more a certain or sufficient explanation than the theory of gravitation is of the construction of the starry heavens; but it reaches farther towards analysis of the facts known to us than any other. By '*the Betrayal*' in the passage just referred to I meant the supposed victory, in the present age of the world, of the deceiving spiritual power, which makes the vices of man his leading motives of action, and his follies, its leading methods. By '*the Redemption*' I meant the promised final victory of the creating and true Spirit, in opening the blind eyes, in

making the crooked places straight and the rough plain, and restoring the power of His ministering angels, over a world in which there shall be no more tears.

8. The 'myths'—allegorical fables or stories—in which this belief is represented, were, I went on to say in the same place, "incomparably *truer*" than the Darwinian—or, I will add, any other conceivable materialistic theory—because they are the instinctive products of the natural human mind, conscious of certain facts relating to its fate and peace; and as unerring in that instinct as all other living creatures are in the discovery of what is necessary for their life: while the materialistic theories have been from their beginning products, in the words used in the passage I am explaining (page 4, line 11), of the '*half wits* of impertinent multitudes.' "They are half-witted because never entertained by any person possessing imaginative power,—and impertinent, because they are always announced as if the very defect of imagination constituted a superiority of discernment.

9. In one of the cleverest—(and, in description of the faults and errors of religious persons, usefulest)—books of this modern half-witted school, "*une cure du Docteur Pontalais*," of which the plot consists in the revelation by an ingenious doctor to an ingenuous priest that the creation of the world may be sufficiently explained by dropping oil with dexterity out of a pipe into a wineglass,—the assumption that '*la logique*' and '*la methode*' were never applied to theological subjects except in the Quartier Latin of Paris in the present blessed state of Parisian intelligence and morals, may be I hope received as expressing nearly the ultimate possibilities of shallow arrogance in these regions of thought; and I name the book as one extremely well worth reading, first as such; and secondly because it puts into the clearest form I have yet met with, the peculiar darkness of materialism, in its denial of the hope of immortality. The hero of it, who is a perfectly virtuous person, and inventor of the most ingenious and benevolent machines, is killed by the cruelties of an usurer and a priest; and in dying, the only consolation he

offers his wife and children is that the loss of one life is of no consequence in the progress of humanity.

This unselfish resignation to total death is the most heroic element in the Religion now in materialist circles called the Religion "of Humanity," and announced as if it were a new discovery of nineteenth-century sagacity, and able to replace in the system of its society, alike all former ideas of the power of God, and destinies of man.

10. But, in the first place, it is by no means a new discovery. The fact that the loss of a single life is of no consequence when the lives of many are to be saved, is, and always has been, the root of every form of beautiful courage; and I have again and again pointed out, in passages scattered through writings carefully limited in assertion, between 1860 and 1870, that the heroic actions on which the material destinies of this world depend are almost invariably done under the conception of death as a calamity, which is to be endured by one for the deliverance of many, and after which there is no personal reward to be looked for, but the gratitude or fame of which the victim anticipates no consciousness.

11. In the second place, this idea of self-sacrifice is no more sufficient for man than it is new to him. It has, indeed, strength enough to maintain his courage under circumstances of sharp and instant trial; but it has no power whatever to satisfy the heart in the ordinary conditions of social affection, or to console the spirit and invigorate the character through years of separation or distress. Still less can it produce the states of intellectual imagination which have hitherto been necessary for the triumphs of constructive art; and it is a distinctive essential point in the modes of examining the arts as part of necessary moral education, which have been constant in my references to them, that those of poetry, music, and painting, which the religious schools who have employed them usually regard only as stimulants or embodiments of faith, have been by me always considered as its *evidences*. Men do not sing themselves into love or faith; but they are incapable of true song, till they love, and believe.

12. The lower conditions of intellect which are concerned in the pursuit of natural science, or the invention of mechanical structure, are similarly, and no less intimately, dependent for their perfection on the lower feelings of admiration and affection which can be attached to material things: these also—the curiosity and ingenuity of man—live by admiration and by love; but they differ from the imaginative powers in that they are concerned with things seen—not with the evidences of things unseen—and it would be well for them if the understanding of this restriction prevented them in the present day as severely from speculation as it does from devotion.

13. Nevertheless, in the earlier and happier days of Linnæus, de Saussure, von Humboldt, and the multitude of quiet workers on whose secure foundation the fantastic expatiations of modern science depend for whatever good or stability there is in them, natural religion was always a part of natural science; it becomes with Linnæus a part of his definitions; it underlies, in serene modesty, the courage and enthusiasm of the great travelers and discoverers, from Columbus and Hudson to Livingstone; and it has saved the lives, or solaced the deaths, of myriads of men whose nobleness asked for no memorial but in the gradual enlargement of the realm of manhood, in habitation, and in social virtue.

14. And it is perhaps, of all the tests of difference between the majestic science of those days, and the wild theories or foul curiosities of our own, the most strange and the most distinct, that the practical suggestions which are scattered through the writings of the older naturalists tend always directly to the benefit of the general body of mankind; while the discoverers of modern science have, almost without exception, provoked new furies of avarice, and new tyrannies of individual interest; or else have directly contributed to the means of violent and sudden destruction, already incalculably too potent in the hands of the idle and the wicked.

15. It is right and just that the reader should remember, in reviewing the chapters of my own earlier writings on the

origin and sculpture of mountain form, that all the investigations undertaken by me at that time were connected in my own mind with the practical hope of arousing the attention of the Swiss and Italian mountain peasantry to an intelligent administration of the natural treasures of their woods and streams. I had fixed my thoughts on these problems where they are put in the most exigent distinctness by the various distress and disease of the inhabitants of the valley of the Rhone, above the lake of Geneva: a district in which the adverse influences of unequal temperatures, unwholesome air, and alternate or correlative drought and inundation, are all gathered in hostility against a race of peasantry, the Valaisan, by nature virtuous, industrious, and intelligent in no ordinary degree, and by the hereditary and natural adversities of their position, regarded by themselves as inevitable, reduced indeed, many of them, to extreme poverty and woeful disease; but never sunk into a vicious or reckless despair.

16. The practical conclusions at which I arrived, in studying the channels and currents of the Rhone, Ticino, and Adige, were stated first in the letters addressed to the English press on the subject of the great inundations at Rome in 1871 ('Arrows of the Chace,' volume ii.), and they are again stated incidentally in 'Fors' (Letter XIX.), with direct reference to the dangerous power of the Adige above Verona. Had those suggestions been acted upon, even in the most languid and feeble manner, the twentieth part of the sums since spent by the Italian government in carrying French Boulevards round Tuscan cities, and throwing down their ancient streets to find lines for steam tramways, would not only have prevented the recent inundations in North Italy, but rendered their recurrence forever impossible.

17. As it is thus the seal of rightly directed scientific investigation, to be sanctified by loving anxiety for instant practical use, so also the best sign of its completeness and symmetry is in the frankness of its communication to the general mind of well-educated persons.

The fixed relations of the crystalline planes of minerals,

first stated, and in the simplest mathematical terms expressed, by Professor Miller of Cambridge, have been examined by succeeding mineralogists with an ambitious intensity which has at last placed the diagrams of zone circles for quartz and calcite, given in Cloizeaux's mineralogy, both as monuments of research, and masterpieces of engraving, a place among the most remarkable productions of the feverish energies of the nineteenth century. But in the meantime, all the characters of minerals, except the optical and crystalline ones, which it required the best instruments to detect, and the severest industry to register, have been neglected;* the arrangement of collections in museums has been made unintelligibly scientific, without the slightest consideration whether the formally sequent specimens were in lights, or places, where they could be ever visible; the elements of mineralogy prepared for schools have been diversified by eight or ten different modes, nomenclatures, and systems of notation; and while thus the study of mineralogy at all has become impossible to young people, except as a very arduous branch of mathematics, that of its connection with the structure of the earth has been postponed by the leading members of the Geological Society, to inquire into the habits of animalculæ fortunately for the world invisible, and monsters fortunately for the world unregenerate. The race of old Swiss guides, who knew the flowers and crystals of their crags, has meanwhile been replaced by chapmen, who destroy the rarest living flowers of the Alps to raise the price of their herbaria, and pedestrian athletes in the pay of foolish youths; the result being that while fifty years ago there was a good and valuable

* Even the chemistry has been allowed to remain imperfect or doubtful, while the planes of crystals were being counted: thus for an extreme instance, the most important practical fact that the color of ultramarine is destroyed by acids, will not be found stated in the descriptions of that mineral by either Miller, Cloizeaux, or Dana; and no microscopic studies of refraction have hitherto informed the public why a ruby is red, a sapphire blue, or a flint black. On a large scale, the darkening of the metamorphic limestones, near the central ranges, remains unexplained.

mineral cabinet in every important mountain village, it is impossible now to find even at Geneva anything offered for sale but dyed agates from Oberstein; and the confused refuse of the cheap lapidary's wheel, working for the supply of Mr. Cook's tourists with 'Trifles from Chamouni.'

18. I have too long hoped to obtain some remedy for these evils by putting the questions about simple things which ought to be answered in elementary schoolbooks of science, clearly before the student. My own books have thus sometimes become little more than notes of interrogation, in their trust that some day or other the compassion of men of science might lead them to pause in their career of discovery, and take up the more generous task of instruction. But so far from this, the compilers of popular treatises have sought always to make them more salable by bringing them up to the level of last month's scientific news; seizing also invariably, of such new matter, that which was either in itself most singular, or in its tendencies most contradictory of former suppositions and credences: and I purpose now to redeem, so far as I can, the enigmatical tone of my own books, by collecting the sum of the facts they contain, partly by indices, partly in abstracts, and so leaving what I myself have seen or known, distinctly told, for what use it may plainly serve.

For a first step in the fulfillment of this intention, some explanation of the circumstances under which the preceding lecture (on the serpent) was prepared, and of the reasons for its insertion in 'Deucalion,' are due to the reader, who may have thought it either careless in its apparent jesting, or irrelevant in its position.

I happened to be present at the lecture given on the same subject, a few weeks before, by Professor Huxley, in which the now accepted doctrine of development was partly used in support of the assertion that serpents were lizards which had lost their legs; and partly itself supported reciprocally, by the probability which the lecturer clearly showed to exist, of their being so.

Without denying this probability, or entering at all into

the question of the links between the present generation of animal life and that preceding it, my own lecture was intended to exhibit another series, not of merely probable, but of observable, facts, in the relation of living animals to each other.

And in doing so, to define, more intelligibly than is usual among naturalists, the disputed idea of Species itself.

As I wrote down the several points to be insisted on, I found they would not admit of being gravely treated, unless at extreme cost of pains and time—not to say of weariness to my audience. Do what I would with them, the facts themselves were still superficially comic, or at least grotesque: and in the end I had to let them have their own way; so that the lecture accordingly became, apparently, rather a piece of badinage suggested by Professor Huxley's, than a serious complementary statement.

Nothing, however, could have been more seriously intended; and the entire lecture must be understood as a part, and a very important part, of the variously reiterated illustration, through all my writings, of the harmonies and intervals in the being of the existent animal creation—whether it be developed or undeveloped.

The nobly religious passion in which Linnæus writes the prefaces and summaries of the 'Systema Naturæ,' with the universal and serene philanthropy and sagacity of Humboldt, agree in leading them to the optimist conclusion, best, and unsurpassably, expressed forever in Pope's 'Essay on Man'; and with respect to lower creatures, epigrammatized in the four lines of George Herbert,—

“God's creatures leap not, but express a feast
Where all the guests sit close, and nothing wants.
Frogs marry fish and flesh;—bats, bird and beast,
Sponges, non-sense and sense, mines,* th' earth and plants.”

And the thoughts and feelings of these, and all other good, wise, and happy men, about the world they live in, are summed in the 104th Psalm.

* 'Mines' mean crystallized minerals.

On the other hand, the thoughts of cruel, proud, envious, and unhappy men, of the Creation, always issue out of, and gather themselves into, the shambles or the charnel house: the word 'shambles,' as I use it, meaning primarily the battle-field, and secondly, every spot where anyone rejoices in taking life; * and the 'charnel house' meaning collectively, the Morgue, brothel, and vivisection-room.

But, lastly, between these two classes, of the happy and the heartless, there is a mediate order of men both unhappy and compassionate, who have become aware of another form of existence in the world, and a domain of zoology extremely difficult of vivisection,—the diabolic. These men, of whom Byron, Burns, Goethe, and Carlyle are in modern days the chief, do not at all feel that the Nature they have to deal with expresses a Feast only; or that her mysteries of good and evil are reducible to a quite visible Kosmos, as they stand; but that there is another Kosmos, mostly invisible, yet perhaps tangible, and to be felt if not seen.†

Without entering, with Dr. Reville of Rotterdam, upon the question how men of this inferior quality of intellect become possessed either of the idea—or substance—of what they are in the habit of calling 'the Devil'; nor even into the more definite historical question, "how men lived who did seriously believe in the Devil"—(that is to say every saint and sinner who received a decent education between the first and the seventeenth centuries of the Christian era,)—I will merely advise my own readers of one fact respecting the above-named writers, of whom, and whose minds, I know somewhat more than Dr. Reville of Rotterdam,—that *they*, at least, do not use the word 'Devil' in any metaphorical, typical, or abstract sense, but—whether they believe or dis-

* Compare the Modern with the Ancient Mariner—gun versus cross-bow.—"A magnificent albatross was soaring about at a short distance astern, for some time in the afternoon, and was knocked over, but unfortunately not picked up." ('Natural History of the Strait of Magellan': Edmonston and Douglas, 1871, page 225.)

† 'The Devil his Origin Greatness and Decadence,' (*Sic*, without commas,) Williams and Norgate, 1871.

believe in what they say—in a distinctly personal one: and farther, that the conceptions or imaginations of these persons, or any other such persons, greater or less, yet of their species—whether they are a mere condition of diseased brains, or a perception of really existent external forces,—are nevertheless real *Visions*, described by them ‘from the life,’ as literally and straightforwardly as ever any artist of Rotterdam painted a sot—or his pot of beer: and farther—even were we at once to grant that all these visions—as for instance Zechariah’s, “I saw the Lord sitting on His Throne, and Satan standing at His right hand to resist Him,” are nothing more than emanations of the unphosphated nervous matter—still, these states of delirium are an essential part of human natural history: and the species of human Animal subject to them, with the peculiar characters of the phantoms which result from its diseases of the brain, are a much more curious and important subject of science than that which principally occupies the scientific mind of modern days—the species of vermin which are the product of peculiar diseases of the skin.

I state this, however, merely as a necessary Kosmic principle, without any intention of attempting henceforward to engage my readers in any department of Natural History which is outside of the ordinary range of Optics and Mechanics: but if they should turn back to passages of my earlier books which did so, it must always be understood that I am just as literal and simple in language as any of the writers above referred to: and that, for instance, when in the first volume of ‘Deucalion,’ p. 150, I say of the Mylodon—“This creature the Fiends delight to exhibit to you,” I don’t mean by ‘the Fiends’ my good and kind geological friends at the British Museum, nor even the architect who made the drain-pipes from the posteriors of its gargoyles the principal shafts in his design for the front of the new building,—be it far from me,—but I do mean, distinctly, Powers of supernatural Mischief, such as St. Dunstan, or St. Anthony, meant by the same expressions.

With which advice I must for the present end this bit of explanatory chapter, and proceed with some of the glacial investigations relating only to the Lakes—and not to the Inhabitants—whether of Coniston or Caina.

CHAPTER III.

BRUMA ARTIFEX.

1. THE frost of 9th March, 1879, suddenly recurrent and severe, after an almost Arctic winter, found the soil and rock of my little shaded hill garden, at Brantwood, chilled underneath far down; but at the surface, saturated through every cranny and pore with moisture, by masses of recently thawed snow.

The effect of the acutely recurrent frost on the surface of the gravel walks, under these conditions, was the tearing up of their surface as if by minutely and delicately explosive gases; leaving the heavier stones imbedded at the bottom of little pits fluted to their outline, and raising the earth round them in a thin shell or crust, sustained by miniature ranges of basaltic pillars of ice, one range set above another, with level plates or films of earth between; each tier of pillars some half-inch to an inch in height, and the storied architecture of them two or three inches altogether; the little prismatic crystals of which each several tier was composed being sometimes knit into close masses with radiant silky luster, and sometimes separated into tiny, but innumerable shafts, or needles, none more than the twentieth of an inch thick, and many terminating in needle-*points*, of extreme fineness.

2. The soft mold of the garden beds, and the crumbling earth in the banks of streams, were still more singularly divided. The separate clods,—often the separate *particles*,—were pushed up, or thrust asunder, by thread-like crystals, *contorted* in the most fantastic lines, and presenting every form usual in twisted and netted chalcedonies, except the definitely fluent or meltingly diffused conditions, here of

course impossible in crystallizations owing their origin to acute and steady frost. The coils of these minute fibers were also more parallel in their swathes and sheaves than chalcedony; and more lustrous in their crystalline surfaces: those which did not sustain any of the lifted clods, usually terminating in fringes of needle-points, melting beneath the breath before they could be examined under the lens.

3. The extreme singularity of the whole structure lay, to my mind, in the fact that there was nowhere the least vestige of *stellar* crystallization. No resemblance could be traced,—no connection imagined,—between these coiled sheaves, or pillared aisles, and the ordinary shootings of radiant films along the surface of calmly freezing water, or the symmetrical arborescence of hoar-frost and snow. Here was an ice-structure wholly of the earth, earthy; requiring for its development, the weight, and for its stimulus, the interference, of clods or particles of earth. In some places, a small quantity of dust, with a large supply of subterranean moisture, had been enough to provoke the concretion of masses of serpentine filaments three or four inches long; but where there was no dust, there were no filaments, and the ground, whether dry or moist, froze hard under the foot.

4. Greatly blaming myself for never having noticed this structure before, I have since observed it, with other modes of freezing shown in the streamlets of the best watered district of the British Islands,—with continually increasing interest: until nearly all the questions I have so long vainly asked myself and other people, respecting the *variable* formations of crystalline minerals, seem to me visibly answerable by the glittering, and softly by the voice, of even the least-thought-of mountain stream, as it relapses into its wintry quietness.

5. Thus, in the first place, the action of common opaque white quartz in filling veins, caused by settlement or desiccation, with transverse threads, imperfectly or tentatively crystalline, (those traversing the soft slates of the Buet and Col d'Anterne are peculiarly characteristic, owing to the

total absence of lustrous surface in the filaments, and the tortuous aggregation of their nearly solidified tiers or ranks,) cannot but receive some new rays of light in aid of its future explanation, by comparison with the agency here put forth, before our eyes, in the early hours of a single frosty morning; agency almost measurable in force and progress, resulting in the steady elevation of pillars of ice, bearing up an earthy roof, with strength enough entirely to conquer its adherence to heavier stones imbedded in it.

6. Again. While in its first formation, lake or pool ice throws itself always, on calm water, into stellar or plumose films, shot in a few instants over large surfaces; or, in small pools, filling them with spongy reticulation as the water is exhausted, the final structure of its compact mass is an aggregation of vertical prisms, easily separable, when thick ice is slowly thawing: prisms neither formally divided, like those of basalt, nor in any part of their structure founded on the primitive hexagonal crystals of the ice; but starch-like, and irregularly acute-angled.

7. Icicles, and all other such accretions of ice formed by additions at the surface, by flowing or dropping water, are always, when unaffected by irregular changes of temperature or other disturbing accidents, composed of exquisitely transparent vitreous ice, (the water of course being supposed transparent to begin with)—compact, flawless, absolutely smooth at the surface, and presenting on the fracture, to the naked eye, no evidence whatever of crystalline structure. They will inclose living leaves of holly, fern, or ivy, without disturbing one fold or fringe of them, in clear jelly (if one may use the word of anything frozen so hard), like the daintiest candyings by Parisian confectioner's art, over glacé fruit, or like the fixed juice of the white currant in the perfect confiture of Bar-le-Duc;—and the frozen gelatine melts, as it forms, stealthily, serenely, showing no vestige of its crystalline power; pushing nowhere, pulling nowhere; revealing in dissolution, no secrets of its structure; affecting flexile branches and foliage only by its weight, and letting them rise

when it has passed away, as they rise after being bowed under rain.

8. But ice, on the contrary, formed by an unfailing supply of running water over a rock surface, increases, not from above, but *from beneath*. The stream is never displaced by the ice, and forced to run over it, but the ice is always lifted by the stream; and the tiniest runlet of water keeps its own rippling way on the rock as long as the frost leaves it life to run with. In most cases, the tricklings which moisten large rock surfaces are supplied by deep under-drainage which no frost can reach; and then, the constant welling forth and wimpling down of the perennial rivulet, seen here and there under its ice, glittering in timed pulses, steadily, and with a strength according to the need, and practically infinite, heaves up the accumulated bulk of chalcedony it has formed, in masses a foot or a foot and a half thick, if the frost hold; but always more or less opaque in consequence of the action of the sun and wind, and the superficial additions by adhering snow or sleet; until the slowly nascent, silently uplifted, but otherwise motionless glaciers,—here taking casts of the crags, and fitted into their finest crannies with more than sculptor's care, and anon extended in rugged undulation over moss or shale, cover the oozy slopes of our moorlands with *statues* of cascades, where, even in the wildest floods of autumn, cascade is not.

9. Actual waterfalls, when their body of water is great, and much of it reduced to finely divided mist, build or block themselves up, during a hard winter, with disappointingly ponderous and inelegant incrustations,—I regret to say more like messes of dropped tallow than any work of water-nymphs. But a small cascade, falling lightly, and shattering itself only into *drops*, will always do beautiful things, and often incomprehensible ones. After some fortnight or so of clear frost in one of our recent hard winters at Coniston, a fall of about twenty-five feet in the stream of Leathes-water, beginning with general glass basket-making out of all the light grasses at its sides, built for itself at last a complete veil or vault of

finely interwoven ice, under which it might be seen, when the embroidery was finished, falling tranquilly: its strength being then too far subdued to spoil by over-loading or over-laboring the poised trceries of its incandescent canopy.

10. I suppose the component substance of this vault to have been that of ordinary icicle, varied only in direction by infinite accidents of impact in the flying spray. But without including any such equivocal structures, we have already counted five stages of ice familiar to us all, yet not one of which has been accurately described, far less explained. Namely,

(1) Common deep-water surface ice, increased from beneath, and floating, but, except in the degrees of its own expansion, not uplifted.

(2) Surface ice on pools of streams, *exhausting* the water as it forms, and adherent to the stones at its edge. Variously increased in crusts and films of spongy network.

(3) Ice deposited by external flow or fall of water in superadded layers—exogen ice,—on a small scale, vitreous, and perfectly compact, on a large one, coarsely stalagmitic, like impure carbonate of lime, but I *think* never visibly fibrous-radiant, as stalactitic lime is.

(4) Endogen ice, formed from beneath by tricklings over ground surface.

(5) Capillary ice, extant from pores in the ground itself, and carrying portions of it up with its crystals.

11. If to these five modes of slowly progressive formation, we add the swift and conclusive arrest of vapor or dew on a chilled surface, we shall have, in all, six different kinds of—terrestrial, it may be called as opposed to aerial—congelation of water: exclusive of all the atmospheric phenomena of snow, hail, and the aggregation of frozen or freezing particles of vapor in clouds. Inscrutable these, on our present terms of inquiry; but the six persistent conditions, formed before our eyes, may be examined with some chance of arriving at useful conclusions touching crystallization in general.

12. Of which, this universal principle is to be first under-

stood by young people;—that every crystalline substance has a brick of a particular form to build with, usually, in some angle or modification of angle, quite the mineral's own special property,—and if not absolutely peculiar to it, at least peculiarly used by it. Thus, though the brick of gold, and that of the ruby-colored oxide of copper, are alike cubes, yet gold grows trees with its bricks, and ruby copper weaves samite with them. Gold cannot plait samite, nor ruby copper branch into trees; and ruby itself, with a far more convenient and adaptable form of brick, does neither the one nor the other. But ice, which has the same form of bricks to build with as ruby, can, at its pleasure, bind them into branches, or weave them into wool; buttress a polar cliff with adamant, or flush a dome of Alp with light lovelier than the ruby's.

13. You see, I have written above, 'ruby,' as I write 'gold' or ice, not calling their separate crystals, rubies, or golds, or ices. For indeed the laws of structure hitherto ascertained by mineralogists have not shown us any essential difference between substances which crystallize habitually in symmetrical detached figures, seeming to be some favorite arrangement of the figures of their primary molecules; and those which, like ice, only under rare circumstances give clue to the forms of their true crystals, but habitually show themselves in accumulated mass, or complex and capricious involution. Of course the difference may be a question only of time; and the sea, cooled slowly enough, might build bergs of hexagonal ice-prisms as tall as Cleopatra's needle, and as broad as the tower of Windsor; but the time and temperature required, by any given mineral, for its successful constructions of form, are of course to be noted among the conditions of its history, and stated in the account of its qualities.

14. Neither, hitherto, has any sufficient distinction been made between properly crystalline and properly cleavage planes.* The first great laws of crystalline form are given by Miller as equally affecting both; but the conditions of substance which have only so much crystalline quality as to

* See vol. i., chap. xiv., §§ 20-22.

break in directions fixed at given angles, are manifestly to be distinguished decisively from those which imply an effort in the substance to collect itself into a form terminated at symmetrical distances from a given center. The distinction is practically asserted by the mineral itself, since it is seldom that any substance has a cleavage parallel to more than one or two of its planes: and it is forced farther on our notice by the ragged lustres of true cleavage planes like those of mica, opposed to the serene bloom of the crystalline surfaces formed by the edges of the folia.

15. Yet farther. The nature of cleavage planes in definitely crystalline minerals connects itself by imperceptible gradations with that of the surfaces produced by mechanical separation in their masses consolidating from fusion or solution. It is now thirty years, and more, since the question whether the forms of the gneissitic buttresses of Mont Blanc were owing to cleavage or stratification, became matter of debate between leading members of the Geological Society; and it remains to this day an undetermined one! In succeeding numbers of 'Deucalion,' I shall reproduce, according to my promise in the introduction, the chapters of 'Modern Painters' which first put this question into clear form; the drawings which had been previously given by de Saussure and other geologists having never been accurate enough to explain the niceties of rock structure to their readers, although, to their own eyes on this spot, the conditions of form had been perfectly clear. I see nothing to alter either in the text of these chapters, written during the years 1845 to 1850, or in the plates and diagrams by which they were illustrated; and hitherto, the course of geological discovery has given me, I regret to say, nothing to add to them: but the methods of microscopic research originated by Mr. Sorby, cannot but issue, in the hands of the next de Saussure, in some trustworthy interpretation of the great phenomena of Alpine form.

16. I have just enough space left in this chapter to give some illustrations of the modes of crystalline increment which are not properly subjects of mathematical definition; but are

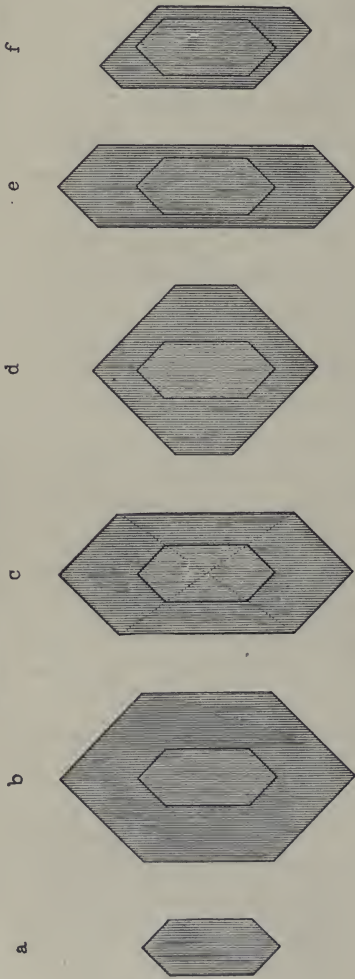


Fig. 1.



Fig. 2.

Plate X.

Modes of Crystalline Increment.

variable, as in the case of the formations of ice above described, by accidents of situation, and by the modes and quantities of material supply.

17. More than a third of all known minerals crystallize in forms developed from original molecules which can be arranged in cubes and octahedrons; and it is the peculiarity of these minerals that whatever the size of their crystals, so far as they are perfect, they are of equal diameter in every direction; they may be square blocks or round balls, but do not become pillars or cylinders. A diamond, from which the crystalline figure familiar on our playing cards has taken its popular name, be it large or small, is still a diamond, in figure as well as in substance, and neither divides into a star, nor lengthens into a needle.

18. But the remaining two-thirds of mineral bodies resolve themselves into groups, which, under many distinctive conditions, have this in common,—that they consist essentially of *pillars* terminating in pyramids at both ends. A diamond of ordinary octahedric type may be roughly conceived as composed of two pyramids set base to base; and nearly all minerals belonging to other systems than the cubic, as composed of two pyramids with a tower between them. The pyramids may be four-sided, six-sided, eight-sided; the tower may be tall, or short, or, though rarely, altogether absent, leaving the crystal a diamond of its own sort; nevertheless, the primal separation of the double pyramid from the true tower with pyramid at both ends, will hold good for all practice, and to all sound intelligence.

19. Now, so long as it is the law for a mineral, that however large it may be, its form shall be the same, we have only crystallographic questions respecting the modes of its increase. But when it has the choice whether it will be tall or short, stout or slender, and also whether it will grow at one end or the other, a number of very curious conditions present themselves, unconnected with crystallography proper, but bearing much on the formation and aspect of rocks.

20. Let *a*, fig. 1, plate X., be the section of a crystal

formed by a square tower one-third higher than it is broad, and having a pyramid at each end half as high as it is broad. Such a form is the simplest general type of average crystalline dimension, not cubic, that we can take to start with.

Now if, as at *b*, we suppose the crystal to be enlarged by the addition of equal thickness or depth of material on all its surfaces,—in the figure its own thickness is added to each side,—as the process goes on, the crystal will gradually lose its elongated shape, and approximate more and more to that of a regular hexagon. If it is to retain its primary shape, the additions to its substance must be made on the diagonal lines dotted across the angles, as at *c*, and be always more at the ends than at the flanks. But it may chance to determine the additions wholly otherwise, and to enlarge, as at *d*, on the flanks instead of the points; or, as at *e*, losing all relation to the original form, prolong itself at the extremities, giving little, or perhaps nothing, to its sides. Or, lastly, it may alter the axis of growth altogether, and build obliquely, as at *f*, on one or more planes in opposite directions.

21. All the effective structure and aspect of crystalline substances depend on these caprices of their aggregation. The crystal of amethyst of which a longitudinal section is given in plate X., fig. 2, is more visibly, (by help of its amethyst staining,) but not more frequently or curiously, modified by accident than any common prism of rough quartz will be usually found on close examination; but in this example, the various humors, advances, and pauses of the stone are all traced for us by its varying blush; and it is seen to have raised itself in successive layers above the original pyramid—always thin at the sides, and oblique at the summit, and apparently endeavoring to educate the rectilinear impulses of its being into compliance with a beautiful imaginary curve.

22. Of prisms more successful in this effort, and constructed finally with smoothly curved sides, as symmetrical in their entasis as a Greek pillar, it is easy to find examples in opaque quartz—(not in transparent*)—but no quartz

* Smoky quartz, or even Cairngorm, will sometimes curve the sides parallel to the axis, but (I think) pure white quartz never.

crystal ever *bends* the vertical axis as it grows, if the prismatic structure is complete; while yet in the imperfect and fibrous state above spoken of, § 5, and mixed with clay in the flammeate forms of jasper, undulation becomes a law of its being!

23. These habits, faculties, and disabilities of common quartz are of peculiar interest when compared with the totally different nature and disposition of ice, though belonging to the same crystalline system. The rigidly and limitedly mathematical mind of Cloizeaux passes without notice the mystery, and the marvel, implied in his own brief statement of its elementary form “Prisme hexagonal *regulier*.” Why ‘regular’? All crystals belonging to the hexagonal system are necessarily regular, in the equality of their angles. But ice is regular also in *dimensions*. A prism of quartz or calcite may be of the form *a* on the section, Fig. 6,* or of the



FIG. 6.

form *b*; but ice is always true—like *c*, as a bee’s cell—‘*prisme regulier*.’

So again, Cloizeaux tells us that ice habitually is formed in ‘*tables hexagonales minces*.’ But why thin?—and *how* thin? What proportion of surface to edge was in his mind as he wrote, undefined? The square plates of uranite, the hexagonal folia of mica, are ‘*minces*’ in a quite different sense. They can be seen separately, or in masses which are distinctly separable. But the “*prisme hexagonal mince, regulier*” of ice cannot be split into thinner plates—cannot be built into longer prisms; but, as we have seen, when it

* I think it best to number my wood-cuts consecutively through the whole work, as the plates also; but fig. 5 is a long way back, p. 121, vol. i. Some further notes on it will be found in the next chapter.

builds, is fantastic in direction, sudden in force, endlessly complex in form.

24. Here, for instance, fig. 7, is the outline of one of the spiculæ of incipient surface ice, formed by sharp frost on



FIG. 7.

calm water already cooled to the freezing point. I have seen literally clouds of surface ice woven of these barbed arrows, shot,—or breathed, across half a mile of lake in ten minutes. And every barb of them *itself* a miracle of structure, complex as an Alpine peak.

These spiculæ float with their barbs downwards, like keels, and form guiding ribs above like those of leaves, between which the entire surface of the water becomes laminated; but, as it does so, the spiculæ get pushed up into little mountain ridges, always steeper on one side than the other—barbed on the steep side, laminated on the other—and radiating more or less trigonally from little central cones, which are raised above the water-surface with hollow spaces underneath.

And it is all done with 'prismes hexagonales reguliers'!

25. Done,—and sufficiently explained, in Professor Tyndall's imagination, by the poetical conception of 'six poles' for every hexagon of ice.* Perhaps!—if one knew first what a pole was, itself—and how many, attractive, or repulsive, to the east and to the west, as well as to the north and the south—one might institute in imaginative science—at one's pleasure;—thus also allowing a rose five poles for its five petals, and a wallflower four for its four, and a lily three, and a hawkweed thirteen. In the meantime, we will return to the safer guidance of primal mythology.

26. The opposite plate (XI.) has been both drawn and engraved, with very happy success, from a small Greek coin, a drachma of Elis, by my good publisher's son, Hugh Allen.

* 'Forms of Water,' in the chapter on snow. The discovery is announced, with much self-applause, as an important step in science.



Plate XI.

The Olympian Lightning.

It is the best example I know of the Greek type of lightning, grasped or gathered in the hand of Zeus. In ordinary coins or gems, it is composed merely of three flames or forked rays, alike at both extremities. But in this Eleian thunderbolt, when the letters F. A. (the old form of beginning the name of the Eleian nation with the digamma) are placed upright, the higher extremity of the thunderbolt is seen to be twisted, in sign of the whirlwind of electric storm, while its lower extremity divides into three symmetrical lobes, like those of a flower, with spiral tendrils from the lateral points: as constantly the honeysuckle ornament on vases, and the other double groups of volute completed in the Ionic capital, and passing through minor forms into the earliest recognizable types of the fleur-de-lys.

27. The intention of the twisted rays to express the action of storm is not questionable—"tres imbris torti radios, et alitis austri." But there can also be little doubt that the tranquillities of line in the lower divisions of the symbol are intended to express the vital and formative power of electricity in its terrestrial currents. If my readers will refer to the chapter in 'Proserpina' on the roots of plants, they will find reasons suggested for concluding that the root is not merely a channel of material nourishment to the plant, but has a vital influence by mere contact with the earth, which the Greek probably thought of as depending on the conveyance of terrestrial electricity. We know, to this day, little more of the great functions of this distributed fire than he: nor how much, while we subdue or pervert it to our vulgar uses, we are in every beat of the heart and glance of the eye, dependent, with the herb of the field and the crystal of the hills, on the aid of its everlasting force. If less than this was implied by the Olympian art of olden time, we have at least, since, learned enough to read, for ourselves his symbol, into the higher faith, that, in the hand of the Father of heaven, the lightning is not for destruction only; but glows, with a deeper strength than the sun's heat or the stars' light, through all the forms of matter, to purify them, to direct, and to save.

THE COMPLETE WORKS

OF

JOHN RUSKIN

VOLUME XXII



MORNINGS IN FLORENCE

ST. MARK'S REST

LAWS OF FÉSOLE

MORNINGS IN FLORENCE

BEING

SIMPLE STUDIES OF CHRISTIAN ART

FOR

ENGLISH TRAVELERS.

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PREFACE

TO THE FIRST EDITION.

It seems to me that the real duty involved in my Oxford professorship cannot be completely done by giving lectures in Oxford only, but that I ought also to give what guidance I may to travelers in Italy.

The following letters are written as I would write to any of my friends who asked me what they ought preferably to study in limited time; and I hope they may be found of use if read in the places which they describe, or before the pictures to which they refer. But in the outset let me give my readers one piece of practical advice. If you can afford it, pay your custode or sacristan well. You may think it an injustice to the next comer; but your paying him ill is an injustice to *all* comers, for the necessary result of your doing so is that he will lock up or cover whatever he can, that he may get his penny fee for showing it; and that, thus exacting a small tax from everybody, he is thankful to none, and gets into a sullen passion if *you* stay more than a quarter of a minute to look at the object after it is uncovered. And you will not find it possible to examine anything properly under these circumstances. Pay your sacristan well, and make friends with him: in nine cases out of ten an Italian is really grateful for the money, and more than grateful for human courtesy; and will give you some true zeal and kindly feeling in return for a franc and a pleasant look. How very horrid of him to be grateful for money, you think! Well, I can only tell you that I know fifty people who will write me letters full of tender sentiment, for one who will give me ten-

pence; and I shall be very much obliged to you if you will give me tenpence for each of these letters of mine, though I have done more work than you [will ever] know of, to make them good ten-pennyworths to you.

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CONTENTS

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MORNINGS IN FLORENCE.

THE FIRST MORNING.

SANTA CROCE.

1. IF there be one artist, more than another, whose work it is desirable that you should examine in Florence, supposing that you care for old art at all, it is Giotto. You can, indeed, also see work of his at Assisi; but it is not likely you will stop there, to any purpose. At Padua there is much; but only of one period. At Florence, which is his birth-place, you can see pictures by him of every date, and every kind. But you had surely better see, first, what is of his best time and of the best kind. He painted very small pictures and very large—painted from the age of twelve to sixty—painted some subjects carelessly which he had little interest in—others, carefully with all his heart. You would surely like, and it would certainly be wise, to see him first in his strong and earnest work,—to see a painting by him, if possible, of large size, and wrought with his full strength, and of a subject pleasing to him. And if it were, also, a subject interesting to you yourself,—better still.

2. Now, if indeed you are interested in old art, you cannot but know the power of the thirteenth century. You know that the character of it was concentrated in, and to the full expressed by, its best king, St. Louis. You know St. Louis was a Franciscan; and that the Franciscans, for whom Giotto was continually painting under Dante's advice, were prouder of him than of any other of their royal brethren

or sisters. If Giotto ever would imagine anybody with care and delight, it would be St. Louis, if it chanced that anywhere he had St. Louis to paint.

Also, you know that he was appointed to build the Campanile of the Duomo, because he was then the best master of sculpture, painting, and architecture in Florence, and supposed in such business to be without superior in the world.* And that this commission was given him late in life, (of course he could not have designed the Campanile when he was a boy;) so therefore, if you find any of his figures niched under pure campanile architecture, and the architecture by his hand, you know, without other evidence, that the painting must be of his strongest time.

So if one wanted to find anything of his to begin with, specially, and could choose what it should be, one would say, "A fresco, life size, with campanile architecture behind it, painted in an important place: and if one might choose one's subject, perhaps the most interesting saint of all saints—for *him* to do for us—would be St. Louis."

3. Wait then for an entirely bright morning; rise with the sun, and go to Santa Croce, with a good opera-glass in your pocket, with which you shall for once, at any rate, see an 'opus'; and, if you have time, several opera. Walk straight to the chapel on the right of the choir ('k' in your Murray's Guide). When you first get into it, you will see nothing but a modern window of glaring glass, with a red-hot cardinal in one pane—which piece of modern manufacture takes away at least seven-eighths of the light (little enough before) by which you might have seen what is worth sight. Wait patiently till you get used to the gloom. Then, guarding your eyes from the accursed modern window as best you may, take your opera-glass, and look to the right, at the uppermost of the two figures beside it. It is St. Louis, under campanile

* "Cum in universo orbe non reperiri dicatur quenkum qui sufficien-
tior sit in his et aliis multis artibus magistro Giotto Bondonis de Florentiâ
pictore, et accipiendus sit in patriâ, velut magnus magister."—(Decree of
his appointment, quoted by Lord Lindsay, vol. ii., p. 247.)

architecture, painted by—Giotto? or the last Florentine painter who wanted a job—over Giotto? That is the first question you have to determine; as you will have henceforward, in every case in which you look at a fresco.

Sometimes there will be no question at all. These two gray frescoes at the bottom of the walls on your right and left, for instance, have been entirely got up for your better satisfaction, in the last year or two—over Giotto's half-effaced lines. But that St. Louis? Repainted or not, it is a lovely thing,—there can be no question about that; and we must look at it, after some preliminary knowledge gained, not inattentively.

4. Your Murray's Guide tells you that this chapel of the Bardi della Libertà, in which you stand, is covered with frescoes by Giotto; that they were whitewashed, and only laid bare in 1853; that they were painted between 1296 and 1304; that they represent scenes in the life of St. Francis; and that on each side of the window are paintings of St. Louis of Toulouse, St. Louis, king of France, St. Elizabeth of Hungary, and St. Claire,—“all much restored and repainted.” Under such recommendation, the frescoes are not likely to be much sought after; and accordingly, as I was at work in the chapel this morning, Sunday, 6th September, 1874, two nice-looking Englishmen, under guard of their valet de place, passed the chapel without so much as looking in.

You will perhaps stay a little longer in it with me, good reader, and find out gradually where you are. Namely, in the most interesting and perfect little Gothic chapel in all Italy—so far as I know or can hear. There is no other of the great time which has all its frescoes in their place. The Arena, though far larger, is of earlier date—not pure Gothic, nor showing Giotto's full force. The lower chapel at Assisi is not Gothic at all, and is still only of Giotto's middle time. You have here, developed Gothic, with Giotto in his consummate strength, and nothing lost, in form, of the complete design.

By restoration—judicious restoration, as Mr. Murray usu-

ally calls it—there is no saying how much you have lost. Putting the question of restoration out of your mind, however, for a while, think where you are, and what you have got to look at.

5. You are in the chapel next the high altar of the great Franciscan church of Florence. A few hundred yards west of you, within ten minutes' walk, is the Baptistery of Florence. And five minutes' walk west of that, is the great Dominican church of Florence, Santa Maria Novella.

Get this little bit of geography, and architectural fact, well into your mind. There is the little octagon Baptistery in the middle; here, ten minutes' walk east of it, the Franciscan church of Holy Cross; there, five minutes' walk west of it, the Dominican church of St. Mary.

Now, that little octagon Baptistery stood where it now stands (and was finished, though the roof has been altered since) in the eighth century. It is the central building of Etrurian Christianity,—of European Christianity.

From the day it was finished, Christianity went on doing her best, in Etruria and elsewhere, for four hundred years,—and her best seemed to have come to very little,—when there rose up two men who vowed to God it should come to more. And they made it come to more, forthwith; of which the immediate sign in Florence was that she resolved to have a fine new cross-shaped cathedral instead of her quaint old little octagon one; and a tower beside it that should beat Babel:—which two buildings you have also within sight.

6. But your business is not at present with them; but with these two earlier churches of Holy Cross and St. Mary. The two men who were the effectual builders of these were the two great religious Powers and Reformers of the thirteenth century;—St. Francis, who taught Christian men how they should behave, and St. Dominic, who taught Christian men what they should think. In brief, one the Apostle of Works; the other of Faith. Each sent his little company of disciples to teach and preach in Florence: St. Francis in 1212; St. Dominic in 1220.

The little companies were settled—one, ten minutes' walk east of the old Baptistery; the other, five minutes' walk west of it. And after they had stayed quietly in such lodgings as were given them, preaching and teaching through most of the century; and had got Florence, as it were, heated through, she burst out into Christian poetry and architecture, of which you have heard much talk:—burst into bloom of Arnolfo, Giotto, Dante, Orcagna, and the like persons, whose works you profess to have come to Florence that you may see and understand.

Florence then, thus heated through, first helped her teachers to build finer churches. The Dominicans, or White Friars, the Teachers of Faith, began their church of St. Mary's in 1279. The Franciscans, or Black Friars, the Teachers of Works, laid the first stone of this church of the Holy Cross in 1294. And the whole city laid the foundations of its new cathedral in 1298. The Dominicans designed their own building; but for the Franciscans and the town worked the first great master of Gothic art, Arnolfo; with Giotto at his side, and Dante looking on, and whispering sometimes a word to both.

7. And here you stand beside the high altar of the Franciscans' church, under a vault of Arnolfo's building, with at least some of Giotto's color on it still fresh; and in front of you, over the little altar, is a reportedly authentic portrait of St. Francis, taken from life by Giotto's master. Yet I can hardly blame my two English friends for never looking in. Except in the early morning light, not one touch of all this art can be seen. And in any light, unless you understand the relations of Giotto to St. Francis, and of St. Francis to humanity, it will be of little interest.

Observe, then, the special character of Giotto among the great painters of Italy is his being a practical person. Whatever other men dreamed of, he did. He could work in mosaic; he could work in marble; he could paint; and he could build; and all thoroughly: a man of supreme faculty, supreme common sense. Accordingly, he ranges himself at

once among the disciples of the Apostle of Works, and spends most of his time in the same apostleship.

Now the gospel of Works, according to St. Francis, lay in three things. You must work without money, and be poor. You must work without pleasure, and be chaste. You must work according to orders, and be obedient.

Those are St. Francis's three Articles of Italian opera. By which grew the many pretty things you have come to see here.

8. And now if you will take your opera-glass and look up to the roof above Arnolfo's building, you will see it is a pretty Gothic cross vault, in four quarters, each with a circular medallion, painted by Giotto. That over the altar has the picture of St. Francis himself. The three others, of his Commanding Angels. In front of him, over the entrance arch, Poverty. On his right hand, Obedience. On his left, Chastity.

Poverty, in a red patched dress, with gray wings, and a square nimbus of glory above her head, is flying from a black hound, whose head is seen at the corner of the medallion.

Chastity, veiled, is imprisoned in a tower, while angels watch her.

Obedience bears a yoke on her shoulders, and lays her hand on a book.

Now, this same quatrefoil, of St. Francis and his three Commanding Angels, was also painted, but much more elaborately, by Giotto, on the cross vault of the lower church of Assisi, and it is a question of interest which of the two roofs was painted first.

Your Murray's Guide tells you the frescoes in this chapel were painted between 1296 and 1304. But as they represent, among other personages, St. Louis of Toulouse, who was not canonized till 1317, that statement is not altogether tenable. Also, as the first stone of the church was only laid in 1294, when Giotto was a youth of eighteen, it is little likely that either it would have been ready to be painted, or he ready with his scheme of practical divinity, two years later.

Farther, Arnolfo, the builder of the main body of the church, died in 1310. And as St. Louis of Toulouse was not a saint till seven years afterwards, and the frescoes therefore beside the window not painted in Arnolfo's day, it becomes another question whether Arnolfo left the chapels or the church at all, in their present form.

9. On which point—now that I have shown you where Giotto's St. Louis is—I will ask you to think a while, until you are interested; and then I will try to satisfy your curiosity. Therefore, please leave the little chapel for the moment, and walk down the nave, till you come to two sepulchral slabs near the west end, and then look about you and see what sort of a church Santa Croce is.

Without looking about you at all, you may find, in your Murray, the useful information that it is a church which "consists of a very wide nave and lateral aisles, separated by seven fine pointed arches." And as you will be—under ordinary conditions of tourist hurry—glad to learn so much, *without* looking, it is little likely to occur to you that this nave and two rich aisles required also, for your complete present comfort, walls at both ends, and a roof on the top. It is just possible, indeed, you may have been struck, on entering, by the curious disposition of painted glass at the east end;—more remotely possible that, in returning down the nave, you may this moment have noticed the extremely small circular window at the west end; but the chances are a thousand to one that, after being pulled from tomb to tomb round the aisles and chapels, you should take so extraordinary an additional amount of pains as to look up at the roof,—unless you do it now, quietly. It will have had its effect upon you, even if you don't, without your knowledge. You will return home with a general impression that Santa Croce is, somehow, the ugliest Gothic church you ever were in. Well—that is really so; and now, will you take the pains to see why?

10. There are two features, on which, more than on any others, the grace and delight of a fine Gothic building depends; one is the springing of its vaultings, the other the

proportion and fantasy of its traceries. *This* church of Santa Croce has no vaultings at all, but the roof of a farm-house barn. And its windows are all of the same pattern,—the exceedingly prosaic one of two pointed arches, with a round hole above, between them.

And to make the simplicity of the roof more conspicuous, the aisles are successive sheds, built at every arch. In the aisles of the Campo Santo of Pisa, the unbroken flat roof leaves the eye free to look to the traceries; but here, a succession of up-and-down sloping beam and lath gives the impression of a line of stabling rather than a church aisle. And lastly, while, in fine Gothic buildings, the entire perspective concludes itself gloriously in the high and distant apse, here the nave is cut across sharply by a line of ten chapels, the apse being only a tall recess in the midst of them, so that, strictly speaking, the church is not of the form of a cross, but of a letter T.

Can this clumsy and ungraceful arrangement be indeed the design of the renowned Arnolfo?

Yes, this is purest Arnolfo-Gothic; not beautiful by any means; but deserving, nevertheless, our thoughtfulest examination. We will trace its complete character another day: just now we are only concerned with this pre-Christian form of the letter T, insisted upon in the lines of chapels.

11. Respecting which you are to observe, that the first Christian churches in the catacombs took the form of a blunt cross naturally; a square chamber having a vaulted recess on each side; then the Byzantine churches were structurally built in the form of an equal cross; while the heraldic and other ornamental equal-armed crosses are partly signs of glory and victory, partly of light, and divine spiritual presence.*

But the Franciscans and Dominicans saw in the cross no sign of triumph, but of trial.† The wounds of their Master

* See, on this subject generally, Mr. R. St. J. Tyrwhitt's "Art-Teaching of the Primitive Church." S.P.C.K., 1874.

† I have never obtained time for any right study of early Christian

were to be their inheritance. So their first aim was to make what likeness to the cross their church might present, distinctly that of the actual instrument of death.

And they did this most effectually by using the form of the letter T, that of the Furca or Gibbet,—not the sign of peace.

Also, their churches were meant for use; not show, nor self-glorification, nor town-glorification. They wanted places for preaching, prayer, sacrifice, burial; and had no intention of showing how high they could build towers, or how widely they could arch vaults. Strong walls, and the roof of a barn,—these your Franciscan asks of his Arnolfo. These Arnolfo

church-discipline,—nor am I sure to how many other causes the choice of the form of the basilica may be occasionally attributed, or by what other communities it may be made. Symbolism, for instance, has most power with the Franciscans, and convenience for preaching with the Dominicans; but in all cases, and in all places, the transition from the close tribune to the brightly-lighted apse, indicates the change in Christian feeling between regarding a church as a place for public judgment or teaching, or a place for private prayer and congregational praise. The following passage from the Dean of Westminster's perfect history of his Abbey ought to be read also in the Florentine church:—"The nearest approach to Westminster Abbey in this aspect is the church of Santa Croce at Florence. There, as here, the present destination of the building was no part of the original design, but was the result of various converging causes. As the church of one of the two great preaching orders, it had a nave large beyond all proportion to its choir. That order being the Franciscan, bound by vows of poverty, the simplicity of the worship preserved the whole space clear from any adventitious ornaments. The popularity of the Franciscans, especially in a convent hallowed by a visit from St. Francis himself, drew to it not only the chief civic festivals, but also the numerous families who gave alms to the friars, and whose connection with their church was, for this reason, in turn encouraged by them. In those graves, piled with standards and achievements of the noble families of Florence, were successively interred—not because of their eminence, but as members or friends of those families—some of the most illustrious personages of the fifteenth century. Thus it came to pass, as if by accident, that in the vault of the Buonarotti was laid Michael Angelo; in the vault of the Viviani the preceptor of one of their house, Galileo. From those two burials the church gradually became the recognized shrine of Italian genius."

gives,—thoroughly and wisely built; the successions of gable roof being a new device for strength, much praised in its day.

12. This stern humor did not last long. Arnolfo himself had other notions; much more Cimabue and Giotto; most of all, Nature and Heaven. Something else had to be taught about Christ than that He was wounded to death. Nevertheless, look how grand this stern form would be, restored to its simplicity. It is not the old church which is in itself unimpressive. It is the old church defaced by Vasari, by Michael Angelo, and by modern Florence. See those huge tombs on your right hand and left, at the sides of the aisles, with their alternate gable and round tops, and their paltriest of all possible sculpture, trying to be grand by bigness, and pathetic by expense. Tear them all down in your imagination; fancy the vast hall with its massive pillars,—not painted calomel-pill color, as now, but of their native stone, with the rough, true wood for roof,—and a people praying beneath them, strong in abiding, and pure in life, as their rocks and olive forests. That was Arnolfo's Santa Croce. Nor did his work remain long without grace.

That very line of chapels in which we found our St. Louis, shows signs of change in temper. *They* have no pent-house roofs, but true Gothic vaults: our four-square code of Franciscan Law colored on one of them.

It is probable, then, that these chapels may be later than the rest—even in their stonework. In their decoration, they are so, assuredly; belonging already to the time when the story of St. Francis was becoming a passionate tradition, told and painted everywhere with delight.

And that high recess, taking the place of apse, in the center,—see how noble it is in the colored shade surrounding and joining the glow of its windows, though their form be so simple. You are not to be amused here by mere patterns in balanced stone, as a French or English architect would amuse you, says Arnolfo. “You are to read and think, under these severe walls of mine; immortal hands will write

upon them." We will go back, therefore, into this line of manuscript chapels presently; but first, look at the two sepulchral slabs by which you are standing. That farther of the two from the west end is one of the most beautiful pieces of fourteenth century sculpture in this world: and it contains simple elements of excellence, by your understanding of which you may test your power of understanding the more difficult ones you will have to deal with presently.

13. It represents an old man, in the high deeply-folded cap worn by scholars and gentlemen in Florence from 1300 to 1500, lying dead, with a book on his breast, over which his hands are folded. At his feet is this inscription: "Temporibus hic suis phylosophye atq. medicine culmen fuit Galileus de Galileis olim Bonajutis qui etiam summo in magistratu miro quodam modo rempublicam dilexit, cujus sancte memorie bene acte vite pie benedictus filius hunc tumulum patri sibi suisq. posteris edidit."

Mr. Murray tells you that the effigies "in low relief" (alas, yes, low enough now—worn mostly into flat stones, with a trace only of the deeper lines left, but originally in very bold relief,) with which the floor of Santa Croce is inlaid, of which this by which you stand is characteristic, are "interesting from the costume," but that, "except in the case of John Ketterick, Bishop of St. David's, few of the other names have any interest beyond the walls of Florence." As, however, you are at present within the walls of Florence, you may perhaps condescend to take some interest in this ancestor or relation of the Galileo whom Florence indeed left to be externally interesting, and would not allow within her walls.*

I am not sure if I rightly place or construe the phrase in the above inscription, "cujus sancte memorie bene acte"; but, in main purport, the legend runs thus: "This Galileo of the Galilei was, in his times, the head of philosophy and medicine; who also in the highest magistracy loved the repub-

* "Seven years a prisoner at the city gate,
Let in but in his grave-clothes."

Rogers' "Italy."

lie marvelously; whose son, blessed in inheritance of his holy memory and well-passed and pious life, appointed this tomb for his father, for himself, and for his posterity."

There is no date; but the slab immediately behind it, near the western door, is of the same style, but of later and inferior work, and bears date—I forget now of what early year in the fifteenth century.

But Florence was still in her pride; and you may observe, in this epitaph, on what it was based. That her philosophy was studied *together with useful arts*, and as a part of them; that the masters in these became naturally the masters in public affairs; that in such magistracy, they loved the State, and neither cringed to it nor robbed it; that the sons honored their fathers, and received their fathers' honor as the most blessed inheritance. Remember the phrase "*vite pie benedictus filius*," to be compared with the "*nos nequiores*" of the declining days of all states,—chiefly now in Florence, France, and England.

14. Thus much for the local interest of name. Next for the universal interest of the art of this tomb.

It is the crowning virtue of all great art that, however little is left of it by the injuries of time, that little will be lovely. As long as you can see anything, you can see—almost all;—so much the hand of the master will suggest of his soul.

And here you are well quit, for once, of restoration. No one cares for this sculpture; and if Florence would only thus put all her old sculpture and painting under her feet, and simply use them for gravestones and oilcloth, she would be more merciful to them than she is now. Here, at least, what little is left is true.

And, if you look long, you will find it is not so little. That worn face is still a perfect portrait of the old man, though like one struck out at a venture, with a few rough touches of a master's chisel. And that falling drapery of his cap is, in its few lines, faultless, and subtle beyond description.

And now, here is a simple but most useful test of your

capacity for understanding Florentine sculpture or painting. If you can see that the lines of that cap are both right, and lovely; that the choice of the folds is exquisite in its ornamental relations of line; and that the softness and ease of them is complete,—though only sketched with a few dark touches,—then you can understand Giotto's drawing, and Botticelli's;—Donatello's carving, and Luca's. But if you see nothing in *this* sculpture, you will see nothing in theirs, *of* theirs. Where they choose to imitate flesh, or silk, or to play any vulgar modern trick with marble—(and they often do)—whatever, in a word, is French, or American, or Cockney, in their work, you can see; but what is Florentine, and for ever great—unless you can see also the beauty of this old man in his citizen's cap—you will see never.

15. There is more in this sculpture, however, than its simple portraiture and noble drapery. The old man lies on a piece of embroidered carpet; and, protected by the higher relief, many of the finer lines of this are almost uninjured; in particular, its exquisitely wrought fringe and tassels are nearly perfect. And if you will kneel down and look long at the tassels of the cushion under the head, and the way they fill the angles of the stone, you will—or may—know, from this example alone, what noble decorative sculpture is, and was, and must be, from the days of earliest Greece to those of latest Italy.

'Exquisitely sculptured fringe!' and you have just been abusing sculptors who play tricks with marble! Yes, and you cannot find a better example, in all the museums of Europe, of the work of a man who does *not* play tricks with it—than this tomb. Try to understand the difference: it is a point of quite cardinal importance to all your future study of sculpture.

I *told* you, observe, that the old Galileo was lying on a piece of embroidered carpet. I don't think, if I had not told you, that you would have found it out for yourself. It is not so like a carpet as all that comes to.

But had it been a modern trick-sculpture, the moment you

came to the tomb you would have said, "Dear me! how wonderfully that carpet is done,—it doesn't look like stone in the least,—one longs to take it up and beat it, to get the dust off."

Now whenever you feel inclined to speak so of a sculptured drapery, be assured, without more ado, the sculpture is base, and bad. You will merely waste your time and corrupt your taste by looking at it. Nothing is so easy as to imitate drapery in marble. You may cast a piece any day; and carve it with such subtlety that the marble shall be an absolute image of the folds. But that is not sculpture. That is mechanical manufacture.

No great sculptor, from the beginning of art to the end of it, has ever carved, or ever will, a deceptive drapery. He has neither time nor will to do it. His mason's lad may do that, if he likes. A man who can carve a limb or a face never finishes inferior parts, but either with a hasty and scornful chisel, or with such grave and strict selection of their lines as you know at once to be imaginative, not imitative.

16. But if, as in this case, he wants to oppose the simplicity of his central subject with a rich background,—a labyrinth of ornamental lines to relieve the severity of expressive ones,—he will carve you a carpet, or a tree, or a rose thicket, with their fringes and leaves and thorns, elaborated as richly as natural ones; but always for the sake of the ornamental form, never of the imitation; yet, seizing the natural character in the lines he gives, with twenty times the precision and clearness of sight that the mere imitator has. Examine the tassels of the cushion, and the way they blend with the fringe, thoroughly; you cannot possibly see finer ornamental sculpture. Then, look at the same tassels in the same place of the slab next the west end of the church, and you will see a scholar's rude imitation of a master's hand, though in a fine school. (Notice, however, the folds of the drapery at the feet of this figure: they are cut so as to show the hem of the robe within as well as without, and are fine.) Then, as you go back to Giotto's chapel, keep to the left, and

just beyond the north door in the aisle is the much-celebrated tomb of C. Marsuppini, by Desiderio of Settignano. It is very fine of its kind; but there the drapery is chiefly done to cheat you, and chased delicately to show how finely the sculptor could chisel it. It is wholly vulgar and mean in cast of fold. Under your feet, as you look at it, you will tread another tomb of the fine time, which, looking last at, you will recognize the difference between false and true art, as far as there is capacity in you at present to do so. And if you really and honestly like the low-lying stones, and see more beauty in them, you have also the power of enjoying Giotto, into whose chapel we will return to-morrow;—not to-day, for the light must have left it by this time; and now that you have been looking at these sculptures on the floor, you had better traverse nave and aisle across and across, and get some idea of that sacred field of stone. In the north transept you will find a beautiful knight, the finest in chiseling of all these tombs, except one by the same hand in the south aisle just where it enters the south transept. Examine the lines of the Gothic niches traced above them; and what is left of arabesque on their armor. They are far more beautiful and tender in chivalric conception than Donatello's St. George, which is merely a piece of vigorous naturalism founded on these older tombs. If you will drive in the evening to the Chartreuse in Val d'Enna, you may see there an uninjured example of such a slab-tomb by Donatello himself: very beautiful; but not so perfect as the earlier ones on which it is founded. And you may see some fading light and shade of monastic life, among which if you stay till the fireflies come out in the twilight, and thus get to sleep when you come home, you will be better prepared for to-morrow morning's walk—if you will take another with me—than if you go to a party, to talk sentiment about Italy, and hear the last news from London and New York.

THE SECOND MORNING.

THE GOLDEN GATE.

17. TO-DAY, as early as you please, and at all events before doing anything else, let us go to Giotto's own parish-church, Santa Maria Novella. If, walking from the Strozzi Palace, you look on your right for the 'Way of the Beautiful Ladies,' it will take you quickly there.

Do not let anything in the way of acquaintance, sacristan, or chance sight, stop you in doing what I tell you. Walk straight up the church, into the apse of it;—(you may let your eyes rest, as you walk, on the glow of its glass, only mind the step, half-way;)—and lift the curtain; and go in behind the grand marble altar, giving anybody who follows you anything they want, to hold their tongues, or go away.

You know, most probably, already, that the frescoes on each side of you are Ghirlandajo's. You have been told they are very fine, and if you know anything of painting, you know the portraits in them are so. Nevertheless, somehow, you don't really enjoy these frescoes, nor come often here, do you?

The reason of which is, that if you are a nice person, they are not nice enough for you; and if a vulgar person, not vulgar enough. But, if you are a nice person, I want you to look carefully, to-day, at the two lowest, next the windows, for a few minutes, that you may better feel the art you are really to study, by its contrast with these.

On your left hand is represented the birth of the Virgin. On your right, her meeting with Elizabeth.

18. You can't easily see better pieces—(nowhere more pompous pieces)—of flat goldsmith's work. Ghirlandajo was to the end of his life a mere goldsmith, with a gift of portraiture. And here he has done his best, and has put a long wall in wonderful perspective, and the whole city of Florence behind Elizabeth's house in the hill-country; and a splendid bas-relief, in the style of Luca della Robbia, in St. Anne's bedroom; and he has carved all the pilasters, and embroidered all the dresses, and flourished and trumpeted into every corner; and it is all done, within just a point, as well as it can be done; and quite as well as Ghirlandajo could do it. But the point in which it *just* misses being as well as it can be done, is the vital point. And it is all simply—good for nothing.

Extricate yourself from the goldsmith's rubbish of it, and look full at the Salutation. You will say, perhaps, at first, 'What grand and graceful figures!' Are you sure they are graceful? Look again, and you will see their draperies hang from them exactly as they would from two clothes-pegs. Now, fine drapery, really well drawn, as it hangs from a clothes-peg, is always rather impressive, especially if it be disposed in large breadths and deep folds; but that is the only grace of their figures.

Secondly. Look at the Madonna, carefully. You will find she is not the least meek—only stupid—as all the other women in the picture are.

'St. Elizabeth, you think, is nice'? Yes. 'And she says, "Whence is this to me, that the mother of my Lord should come to me?" really with a great deal of serious feeling'? Yes, with a great deal. Well, you have looked enough at those two. Now—just for another minute—look at the birth of the Virgin. 'A most graceful group, (your Murray's Guide tells you,) in the attendant servants.' Extremely so. Also, the one holding the child is rather pretty. Also, the servant pouring out the water does it from a great height, without splashing, most cleverly. Also, the lady coming to ask for St. Anne, and see the baby, walks majesti-

cally, and is very finely dressed. And as for that bas-relief in the style of Luca della Robbia, you might really almost think it *was* Luca! The very best plated goods, Master Ghirlandajo, no doubt—always on hand, at your shop.

19. Well, now you must ask for the Sacristan, who is civil and nice enough; and get him to let you into the green cloister, and then into the less cloister opening out of it on the right, as you go down the steps; and you must ask for the tomb of the Marchesa Strozzi Ridolfi; and in the recess behind the Marchesa's tomb—very close to the ground, and in excellent light, if the day is fine,—you will see two small frescoes, only about four feet wide each, in odd-shaped bits of wall—quarters of circles; representing—that on the left, the Meeting of Joachim and Anna at the Golden Gate; and that on the right, the Birth of the Virgin.

No flourish of trumpets here, at any rate, you think! No gold on the gate; and, for the birth of the Virgin—is this all! Goodness!—nothing to be seen, whatever, of bas-reliefs, nor fine dresses, nor graceful pourings out of water, nor processions of visitors?

No. But there's one thing you can see, here, which you didn't in Ghirlandajo's fresco, unless you were very clever and looked hard for it—the Baby! And you are never likely to see a more true piece of Giotto's work in this world.

A round-faced, small-eyed little thing, tied up in a bundle!

Yes, Giotto was of opinion she must have appeared really not much else than that. But look at the servant who has just finished dressing her;—awestruck, full of love and wonder, putting her hand softly on the child's head, who has never cried. The nurse, who has just taken her, is—the nurse, and no more: tidy in the extreme, and greatly proud and pleased; but would be as much so with any other child.

Chirlandajo's St. Anne (I ought to have told you to notice that,—you can, afterwards) is sitting strongly up in bed, watching, if not directing, all that is going on. Giotto's, lying down on the pillow, leans her face on her hand; partly exhausted, partly in deep thought. She knows that all will

be well done for the child, either by the servants, or God; she need not look after anything.

At the foot of the bed is the midwife, and a servant who has brought drink for St. Anne. The servant stops, seeing her so quiet; asking the midwife, "Shall I give it her now?" The midwife, her hands lifted under her robe, in the attitude of thanksgiving, (with Giotto distinguishable always, though one doesn't know how, from that of prayer,) answers, with her look, "Let be—she does not want anything."

At the door a single acquaintance is coming in, to see the child. Of ornament, there is only the entirely simple outline of the vase which the servant carries; of color, two or three masses of sober red, and pure white, with brown and gray.

That is all. And if you can be pleased with this, you can see Florence. But if not,—by all means amuse yourself there, if you find it amusing, as long as you like; you can never see it.

20. But if indeed you are pleased, ever so little, with this fresco, think what that pleasure means. I brought you, on purpose, round, through the richest overture, and farrago of tweedledum and tweedledee, I could find in Florence; and here is a tune of four notes, on a shepherd's pipe, played by the picture of nobody; and yet you like it! You know what music is, then. Here is another little tune, by the same player, and sweeter. I let you hear the simplest first.

The fresco on the left hand, with the bright blue sky, and the rosy figures! Why, anybody might like that!

Yes; but, alas, all the blue sky is repainted. It *was* blue always, however, and bright too; and I dare say, when the fresco was first done, anybody *did* like it.

You know the story of Joachim and Anna, I hope? Not that I do, myself, quite in the ins and outs; and if you don't, I'm not going to keep you waiting while I tell it. All you need know, and you scarcely, before this fresco, need know so much, is, that here are an old husband and old wife, meeting again by surprise, after losing each other, and being each in great fear;—meeting at the place where they were told

by God each to go, without knowing what was to happen there.

‘So they rushed into one another’s arms, and kissed each other.’

No, says Giotto,—not that.

‘They advanced to meet, in a manner conformable to the strictest laws of composition; and with their draperies cast into folds which no one until Raphael could have arranged better.’

No, says Giotto,—not that.

St. Anne has moved quickest; her dress just falls into folds sloping backwards enough to tell you so much. She has caught St. Joachim by his mantle, and draws him to her, softly, by that. St. Joachim lays his hand under her arm, seeing she is like to faint, and holds her up. They do not kiss each other—only look into each other’s eyes. And God’s angel lays his hand on their heads.

21. Behind them, there are two rough figures, busied with their own affairs,—two of Joachim’s shepherds; one, bare-headed, the other wearing the wide Florentine cap with the falling point behind, which is exactly like the tube of a larkspur or violet; both carrying game, and talking to each other about—Greasy Joan and her pot, or the like. Not at all the sort of persons whom you would have thought in harmony with the scene;—by the laws of the drama, according to Racine or Voltaire.

No, but according to Shakespeare, or Giotto, these are just the kind of persons likely to be there: as much as the angel is likely to be there also, though you will be told nowadays that Giotto was absurd for putting *him* into the sky, of which an apothecary can always produce the similar blue, in a bottle. And now that you have had Shakespeare, and sundry other men of head and heart, following the track of this shepherd lad, *you* can forgive him his grotesques in the corner. But that he should have forgiven them to himself, after the training he had had, this is the wonder! *We* have seen simple pictures enough in our day; and therefore we think that of

course shepherd boys will sketch shepherds: what wonder is there in that?

22. I can show you how in *this* shepherd boy it was very wonderful indeed, if you will walk for five minutes back into the church with me, and up into the chapel at the end of the south transept,—at least if the day is bright, and you get the Sacristan to undraw the window-curtain in the transept itself. For then the light of it will be enough to show you the entirely authentic and most renowned work of Giotto's master; and you will see through what schooling the lad had gone.

A good and brave master he was, if ever boy had one; and, as you will find when you know really who the great men are, the master is half their life; and well they know it—always naming themselves from their master, rather than their families. See then what kind of work Giotto had been first put to. There is, literally, not a square inch of all that panel—some ten feet high by six or seven wide—which is not wrought in gold and color with the fineness of a Greek manuscript. There is not such an elaborate piece of ornamentation in the first page of any Gothic king's missal, as you will find in that Madonna's throne;—the Madonna herself is meant to be grave and noble only; and to be attended only by angels.

And here is this saucy imp of a lad declares his people must do without gold, and without thrones; nay, that the Golden Gate itself shall have no gilding, that St. Joachim and St. Anne shall have only one angel between them; and their servants shall have their joke, and nobody say them nay!

23. It is most wonderful! and would have been impossible, had Cimabue been a common man, though ever so great in his own way. Nor could I in any of my former thinking understand how it was, till I saw Cimabue's own work at Assisi; in which he shows himself, at heart, as independent of his gold as Giotto,—even more intense, capable of higher things than Giotto, though of none, perhaps, so keen or sweet. But to this day, among all the Mater Dolorosas of Christianity, Cimabue's at Assisi is the noblest; nor did any painter after him add one link to the chain of thought with which he

summed the creation of the earth, and preached its redemption.

He evidently never checked the boy, from the first day he found him. Showed him all he knew: talked with him of many things he felt himself unable to paint: made him a workman and a gentleman,—above all, a Christian,—yet left him—a shepherd. And Heaven had made him such a painter, that, at his height, the words of his epitaph are in nowise overwrought: “*Ille ego sum, per quem pictura extincta revixit.*”

24. A word or two, now, about the repainting by which *this pictura extincta* has been revived to meet existing taste. The sky is entirely daubed over with fresh blue; yet it leaves with unusual care the original outline of the descending angel, and of the white clouds about his body. This idea of the angel laying his hands on the two heads—(as a bishop at Confirmation does, in a hurry; and I’ve seen one sweep four together, like Arnold de Winkelried),—partly in blessing, partly as a symbol of their being brought together to the same place by God,—was afterwards repeated again and again: there is one beautiful little echo of it among the old pictures in the schools of Oxford. This is the first occurrence of it that I know in pure Italian painting; but the idea is Etruscan-Greek, and is used by the Etruscan sculptors of the door of the Baptistery of Pisa, of the *evil* angel, who ‘lays the heads together’ of two very different persons from these—Herodias and her daughter.

Joachim, and the shepherd with the larkspur cap, are both quite safe: the other shepherd a little reinforced: the black bunches of grass, hanging about, are retouches. They were once bunches of plants drawn with perfect delicacy and care;—you may see one left, faint, with heart-shaped leaves, on the highest ridge of rock above the shepherds. The whole landscape is, however, quite undecipherably changed and spoiled.

25. You will be apt to think, at first, that if anything has been restored, surely the ugly shepherd’s uglier feet have.

No, not at all. Restored feet are always drawn with entirely orthodox and academical toes, like the Apollo Belvedere's. You would have admired them very much. These are Giotto's own doing, every bit; and a precious business he has had of it, trying again and again—in vain. Even hands were difficult enough to him, at this time; but feet, and bare legs! Well, he'll have a try, he thinks, and gets really a fair line at last, when you are close to it; but, laying the light on the ground afterwards, he dare not touch this precious and dear-bought outline. Stops all round it, a quarter of an inch off,* with such effect as you see. But if you want to know what sort of legs and feet he *can* draw, look at our *lambs*, in the corner of the fresco under the arch on your left!

And there is yet one on your right, though more repainted—the little Virgin presenting herself at the Temple,—about which I could also say much. The stooping figure, kissing the hem of her robe without her knowing, is, as far as I remember, first in this fresco; the origin, itself, of the main design in all the others you know so well; (and with its steps, by the way, in better perspective already than most of them).

“*This* the original one!” you will be inclined to exclaim, if you have any general knowledge of subsequent art. “*This* Giotto! why, it's a cheap rechauffé of Titian!” No, my friend. The boy who tried so hard to draw those steps in perspective had been carried down others, to his grave, two hundred years before Titian ran alone at Cadore. But, as surely as Venice looks on the sea, Titian looked upon this, and caught the reflected light of it forever.

26. What kind of boy is this, think you, who can make Titian his copyist,—Dante his friend? What new power is here which is to change the heart of Italy?—can you see it, feel it, writing before you these words on the faded wall?

“You shall see things—as they Are.”

“And the least with the greatest, because God made them.”

* Perhaps it is only the restorer's white on the ground that stops; but I think a restorer would never have been so wise, but have gone right up to the outline, and spoiled all.

“And the greatest with the least, because God made *you*, and gave you eyes and a heart.”

I. You shall see things—as they Are. So easy a matter that, you think? So much more difficult and sublime to paint grand processions and golden thrones, than St. Anne faint on her pillow, and her servants at pause?

Easy or not, it is all the sight that is required of you in this world,—to see things, and men, and yourself,—as they are.

II. And the least with the greatest, because God made them,—shepherd, and flock, and grass of the field, no less than the Golden Gate.

III. But also the golden gate of Heaven itself, open, and the angels of God coming down from it.

These three things Giotto taught, and men believed, in his day. Of which Faith you shall next see brighter work; only, before we leave the cloister, I want to sum for you one or two of the instant and evident technical changes produced in the school of Florence by this teaching.

27. One of quite the first results of Giotto's simply looking at things as they were, was his finding out that a red thing was red, and a brown thing brown, and a white thing white—all over.

The Greeks had painted anything anyhow,—gods black, horses red, lips and cheeks white; and when the Etruscan vase expanded into a Cimabue picture, or a Tafi mosaic, still—except that the Madonna was to have a blue dress, and everything else as much gold on it as could be managed,—there was very little advance in notions of color. Suddenly, Giotto threw aside all the glitter, and all the conventionalism; and declared that he saw the sky blue, the tablecloth white, and angels, when he dreamed of them, rosy. And he simply founded the schools of color in Italy—Venetian and all, as I will show you to-morrow morning, if it is fine. And what is more, nobody discovered much about color after him.

But a deeper result of his resolve to look at things as they were, was his getting so heartily interested in them that he

couldn't miss their decisive *moment*. There is a decisive instant in all matters; and if you look languidly, you are sure to miss it. Nature seems always, somehow, trying to make you miss it. 'I will see that through,' you must say, 'without turning my head'; or you won't see the trick of it at all. And the most significant thing in all his work, you will find hereafter, is his choice of moments. I will give you at once two instances in a picture which, for other reasons, you should quickly compare with these frescoes. Return by the Via delle Belle Donne; keep the Casa Strozzi on your right; and go straight on, through the market. The Florentines think themselves so civilized, forsooth, for building a nuovo Lung-Arno, and three manufactory chimneys opposite it; and yet sell butcher's meat, dripping red, peaches, and anchovies, side by side: it is a sight to be seen. Much more, Luca della Robbia's Madonna in the circle above the chapel door. Never pass near the market without looking at it; and glance from the vegetables underneath to Luca's leaves and lilies, that you may see how honestly he was trying to make his clay like the garden-stuff. But to-day, you may pass quickly on to the Uffizi, which will be just open; and when you enter the great gallery, turn to the right, and there, the first picture you come at will be No. 6, Giotto's "Agony in the Garden."

28. I used to think it so dull, that I could not believe it was Giotto's. That is partly from its dead color, which is the boy's way of telling you it is night:—more, from the subject being one quite beyond his age, and which he felt no pleasure in trying at. You may see he was still a boy, for he not only cannot draw feet yet, in the least, and scrupulously hides them therefore; but is very hard put to it for the hands, being obliged to draw them mostly in the same position,—all the four fingers together. But in the careful bunches of grass and weeds you will see what the fresco foregrounds were, before they got spoiled; and there are some things he can understand already, even about that Agony, thinking of it in his own fixed way. Some things,—not

altogether to be explained by the old symbol of the angel with the cup. He will try if he cannot explain them better in those two little pictures below; which nobody ever looks at; the great Roman sarcophagus being put in front of them, and the light glancing on the new varnish so that you must twist about like a lizard to see anything. Nevertheless, you may make out what Giotto meant.

“The cup which my Father hath given me, shall I not drink it?” ‘In what was its bitterness?’—thought the boy. ‘Crucifixion?—Well, it hurts, doubtless; but the thieves had to bear it too, and many poor human wretches have to bear worse, on our battlefields. But’—and he thinks, and thinks, and then he paints his two little pictures, for the predella.

29. They represent, of course, the sequence of the time in Gethsemane; but see what choice the youth made of his moments, having two panels to fill. Plenty of choice for him—in pain. The Flagellation—the Mocking—the Bearing the Cross;—all habitually given by the Margheritones, and their school, as extremes of pain.

‘No,’ thinks Giotto. ‘There was worse than all that. Many a good man has been mocked, spitefully entreated, spitted on, slain. But who was ever so betrayed? Who ever saw such a sword thrust in his mother’s heart?’

He paints, first, the laying hands on Him in the garden, but with only two principal figures,—Judas and Peter, of course; Judas and Peter were always principal in the old Byzantine composition,—Judas giving the kiss—Peter cutting off the servant’s ear. But the two are here, not merely principal, but almost alone in sight, all the other figures thrown back; and Peter is not at all concerned about the servant, or his struggle with him. He has got him down,—but looks back suddenly at Judas giving the kiss. What!—*you* are the traitor, then—you!

‘Yes,’ says Giotto; ‘and you, also, in an hour more.’

The other picture is more deeply felt, still. It is of Christ brought to the foot of the cross. There is no wringing of

hands or lamenting crowd—no haggard signs of fainting or pain in His body. Scourging or fainting, feeble knee and torn wound,—he thinks scorn of all that, this shepherd-boy. One executioner is hammering the wedges of the cross harder down. The other—not ungently—is taking Christ's red robe off His shoulders. And St. John, a few yards off, is keeping His mother from coming nearer. She looks *down*, not at Christ; but tries to come.

30. And now you may go on for your day's seeings through the rest of the gallery, if you will—Fornarina, and the wonderful cobbler, and all the rest of it. I don't want you any more, till to-morrow morning.

But if, meantime, you will sit down,—say, before Sandro Botticelli's "Fortitude," which I shall want you to look at, one of these days; (No. 1299, innermost room from the Tribune,) and there read this following piece of one of my Oxford lectures on the relation of Cimabue to Giotto, you will be better prepared for our work to-morrow morning in Santa Croce; and may find something to consider of, in the room you are in. Where, by the way, observe that No. 1288 is a most true early Lionardo, of extreme interest; and the savants who doubt it are—never mind what; but sit down at present at the feet of Fortitude; and read.

31. Those of my readers who have been unfortunate enough to interest themselves in that most profitless of studies—the Philosophy of art—have been at various times teased or amused by disputes respecting the relative dignity of the contemplative and dramatic schools.

Contemplative, of course, being the term attached to the system of painting things only for the sake of their own niceness—a lady because she is pretty, or a lion because he is strong: and the dramatic school being that which cannot be satisfied unless it sees something going on; which can't paint a pretty lady unless she is being made love to, or being murdered; and can't paint a stag or a lion, unless they are being hunted, or shot, or the one eating the other.

You have always heard me—or, if not, will expect by the very tone of this sentence to hear me, now, on the whole recommend you to prefer the Contemplative school. But the comparison is always an imperfect and unjust one, unless quite other terms are introduced.

The real greatness or smallness of schools is not in their preference of inactivity to action, nor of action to inactivity. It is in their preference of worthy things to unworthy, in rest; and of kind action to unkind, in business.

A Dutchman can be just as solemnly and entirely contemplative of a lemon pip and a cheese paring, as an Italian of the Virgin in Glory. An English squire has pictures, purely contemplative, of his favorite horse—and a Parisian lady, pictures, purely contemplative, of the back and front of the last dress proposed to her in *La Mode Artistique*. All these works belong to the same school of silent admiration;—the vital question concerning them is, ‘What do you admire?’

32. Now, therefore, when you hear me so often saying that the Northern races—Norman and Lombard,—are active, or dramatic, in their art; and that the Southern races—Greek and Arabian—are contemplative, you ought instantly to ask farther, Active in what? Contemplative of what? And the answer is, The active art—Lombardic,—rejoices in hunting and fighting; the contemplative art—Byzantine,—contemplates the mysteries of the Christian faith.

And at first, on such answer, one would be apt at once to conclude—All grossness must be in the Lombard; all good in the Byzantine. But again we should be wrong,—and extremely wrong. For the hunting and fighting did practically produce strong, and often virtuous, men; while the perpetual and inactive contemplation of what it was impossible to understand, did not on the whole render the contemplative persons stronger, wiser, or even more amiable. So that, in the twelfth century, while the Northern art was only in need of direction, the Southern was in need of life. The North was indeed spending its valor and virtue on ignoble objects;

but the South disgracing the noblest objects by its want of valor and virtue.

Central stood Etruscan Florence—her root in the earth, bound with iron and brass—wet with the dew of heaven. Agricultural in occupation, religious in thought, she accepted, like good ground, the good; refused, like the Rock of Fésole, the evil; directed the industry of the Northman into the arts of peace; kindled the dreams of the Byzantine with the fire of charity. Child of her peace, and exponent of her passion, her Cimabue became the interpreter to mankind of the meaning of the Birth of Christ.

33. We hear constantly, and think naturally, of him as of a man whose peculiar genius in painting suddenly reformed its principles; who suddenly painted, out of his own gifted imagination, beautiful instead of rude pictures; and taught his scholar Giotto to carry on the impulse; which we suppose thenceforward to have enlarged the resources and bettered the achievements of painting continually, up to our own time,—when the triumphs of art having been completed, and its uses ended, something higher is offered to the ambition of mankind; and Watt and Faraday initiate the Age of Manufacture and Science, as Cimabue and Giotto instituted that of Art and Imagination.

In this conception of the History of Mental and Physical culture, we much overrate the influence, though we cannot overrate the power, of the men by whom the change seems to have been effected. We cannot overrate their power,—for the greatest men of any age, those who become its leaders when there is a great march to be begun, are indeed separated from the average intellects of their day by a distance which is immeasurable in any ordinary terms of wonder.

But we far overrate their influence; because the apparently sudden result of their labor or invention is only the manifested fruit of the toil and thought of many who preceded them, and of whose names we have never heard. The skill of Cimabue cannot be extolled too highly; but no Madonna by his hand could ever have rejoiced the soul of Italy, unless

Figures 6 to 9 represent the structure and effect of polarized light in a lake-agate of more distinctly crystalline structure; and Figures 10 to 13, the orbicular concretions of volcanic Indian chalcedony. But before entering farther on the description of these definitely concretionary bands, I think it will be desirable to take note of some facts regarding the larger bands of our Westmoreland mountains, which become to me, the more I climb them, mysterious to a point scarcely tolerable; and only the more so, in consequence of their recent more accurate survey.

17. Leaving their pebbles, therefore, for a little while, I will ask my readers to think over some of the conditions of their crags and pools, explained as best I could, in the following lecture, to the Literary and Scientific Society of the town of Kendal. For indeed, beneath the evermore blessed Kendal-green of their sweet meadows and moors, the secrets of hill-structure remain, for all the work spent on them, in colorless darkness; and indeed, "So dark, Hal, that thou could'st not see thine hand."

CHAPTER XII.

YEWDALE AND ITS STREAMLETS.

Lecture delivered before the Members of the Literary and Scientific Institution, Kendal, 1st October, 1877.

1. I FEAR that some of my hearers may think an apology due to them for having brought, on the first occasion of my being honored by their audience, a subject before them which they may suppose unconnected with my own special work, past or present. But the truth is, I knew mountains long before I knew pictures; and these mountains of yours, before any other mountains. From this town, of Kendal, I went out, a child, to the first joyful excursions among the Cumberland lakes, which formed my love of landscape and of painting: and now, being an old man, I find myself more and more glad to return—and pray you to-night to return with me—from shadows to the reality.

I do not, however, believe that one in a hundred of our youth, or of our educated classes, out of directly scientific circles, take any real interest in geology. And for my own part, I do not wonder,—for it seems to me that geology tells us nothing really interesting. It tells us much about a world that once was. But, for my part, a world that only was, is as little interesting as a world that only is to be. I no more care to hear of the forms of mountains that crumbled away a million of years ago to leave room for the town of Kendal, than of forms of mountains that some future day may swallow up the town of Kendal in the cracks of them. I am only interested—so ignoble and unspeculative is my disposition—in knowing how God made the Castle Hill of Kendal, for the

You had then the Norman and Lombard races coming down on this: kings, and hunters—splendid in war—insatiable of action. You had the Greek and Arabian races flowing from the east, bringing with them the law of the City, and the dream of the Desert.

Cimabue—Etruscan born, gave, we saw, the life of the Norman to the tradition of the Greek: eager action to holy contemplation. And what more is left for his favorite shepherd boy Giotto to do, than this, except to paint with ever-increasing skill? We fancy he only surpassed Cimabue—eclipsed by greater brightness.

36. Not so. The sudden and new applause of Italy would never have been won by mere increase of the already-kindled light. Giotto had wholly another work to do. The meeting of the Norman race with the Byzantine is not merely that of action with repose—not merely that of war with religion,—it is the meeting of *domestic* life with *monastic*, and of practical household sense with unpractical Desert insanity.

I have no other word to use than this last. I use it reverently, meaning a very noble thing; I do not know how far I ought to say—even a divine thing. Decide that for yourselves. Compare the Northern farmer with St. Francis; the palm hardened by stubbing Thornaby waste, with the palm softened by the imagination of the wounds of Christ. To my own thoughts, both are divine: decide that for yourselves; but assuredly, and without possibility of other decision, one is, humanly speaking, healthy; the other *unhealthy*; one sane, the other—insane.

To reconcile Drama with Dream, Cimabue's task was comparatively an easy one. But to reconcile Sense with—I still use even this following word reverently—Non-sense, is not so easy; and he who did it first,—no wonder he has a name in the world.

I must lean, however, still more distinctly on the word 'domestic.' For it is not Rationalism and commercial competition—Mr. Stuart Mill's 'other career for woman than

that of wife and mother'—which are reconcilable, by Giotto, or by anybody else, with divine vision. But household wisdom, labor of love, toil upon earth according to the law of Heaven—*these* are reconcilable, in one code of glory, with revelation in cave or island, with the endurance of desolate and loveless days, with the repose of folded hands that wait Heaven's time.

Domestic, and monastic. He was the first of Italians—the first of Christians—who *equally* knew the virtue of both lives; and who was able to show it in the sight of men of all ranks,—from the prince to the shepherd; and of all powers,—from the wisest philosopher to the simplest child.

37. For, note the way in which the new gift of painting, bequeathed to him by his great master, strengthened his hands. Before Cimabue, no beautiful rendering of human form was possible; and the rude or formal types of the Lombard and Byzantine, though they would serve in the tumult of the chase, or as the recognized symbols of creed, could not represent personal and domestic character. Faces with goggling eyes and rigid lips might be endured with ready help of imagination, for gods, angels, saints, or hunters—or for anybody else in scenes of recognized legend; but would not serve for pleasant portraiture of one's own self—or of the incidents of gentle, actual life. And even Cimabue did not venture to leave the sphere of conventionally revered dignity. He still painted—though beautifully—only the Madonna, and the St. Joseph, and the Christ. These he made living,—Florence asked no more: and “Credette Cimabue nella pittura tener lo campo.”

But Giotto came from the field; and saw with his simple eyes a lowlier worth. And he painted—the Madonna, and St. Joseph, and the Christ,—yes, by all means, if you choose to call them so, but essentially,—Mamma, Papa, and the Baby. And all Italy threw up its cap,—“Ora ha Giotto il grido.”

For he defines, explains, and exalts, every sweet incident

of human nature; and makes dear to daily life every mystic imagination of natures greater than our own. He reconciles, while he intensifies, every virtue of domestic and monastic thought. He makes the simplest household duties sacred; and the highest religious passions, serviceable, and just.

THE THIRD MORNING.

BEFORE THE SOLDAN.

38. I PROMISED some note of Sandro's Fortitude, before whom I asked you to sit and read the end of my last letter; and I've lost my own notes about her, and forget, now, whether she has a sword, or a mace;—it does not matter. What is chiefly notable in her is—that you would not, if you had to guess who she was, take her for Fortitude at all. Everybody else's Fortitudes announce themselves clearly and proudly. They have tower-like shields, and lion-like helmets—and stand firm astride on their legs,—and are confidently ready for all comers.

Yes;—that is your common Fortitude. Very grand, though common. But not the highest, by any means.

Ready for all comers, and a match for them,—thinks the universal Fortitude;—no thanks to her for standing so steady, then!

But Botticelli's Fortitude is no match, it may be, for any that are coming. Worn, somewhat; and not a little weary, instead of standing ready for all comers, she is sitting,—apparently in reverie, her fingers playing restlessly and idly—nay, I think—even nervously, about the hilt of her sword.

For her battle is not to begin to-day; nor did it begin yesterday. Many a morn and eve have passed since it began; and now—is this to be the ending day of it? And if this—by what manner of end?

That is what Sandro's Fortitude is thinking, and the playing fingers about the sword-hilt would fain let it fall, if it might be: and yet, how swiftly and gladly will they close on it, when the far-off trumpet blows, which she will hear through all her reverie!

39. There is yet another picture of Sandro's here, which you must look at before going back to Giotto: the small Judith in the room next the Tribune, as you return from this outer one. It is just under Lionardo's Medusa. She is returning to the camp of her Israel, followed by her maid carrying the head of Holofernes. And she walks in one of Botticelli's light dancing actions, her drapery all on flutter, and her hand, like Fortitude's, light on the sword-hilt, but daintily—not nervously, the little finger laid over the cross of it.

And at the first glance—you will think the figure merely a piece of fifteenth-century affectation. 'Judith, indeed!—say rather the daughter of Herodias, at her mincingest.'

Well, yes—Botticelli *is* affected, in the way that all men in that century necessarily were. Much euphuism, much studied grace of manner, much formal assertion of scholarship, mingling with his force of imagination. And he likes twisting the fingers of hands about, just as Correggio does. But he never does it like Correggio, without cause.

Look at Judith again,—at her face, not her drapery,—and remember that when a man is base at the heart, he blights his virtues into weaknesses; but when he is true at the heart, he sanctifies his weaknesses into virtues. It is a weakness of Botticelli's, this love of dancing motion and waved drapery; but why has he given it full flight here?

Do you happen to know anything about Judith yourself, except that she cut off Holofernes' head; and has been made the high light of about a million of vile pictures ever since, in which the painters thought they could surely attract the public to the double show of an execution, and a pretty woman,—especially with the added pleasure of hinting at previously ignoble sin?

40. When you go home to-day, take the pains to write out for yourself, in the connection I here place them, the verses underneath numbered from the book of Judith; you will probably think of their meaning more carefully as you write.

Begin thus:

“Now at that time, Judith heard thereof, which was the

daughter of Merari, * * * the son of Simeon, the son of Israel." And then write out consecutively, these pieces—

Chapter viii., verses 2 to 8 (always inclusive), and read the whole chapter.

Chapter ix., verses 1 and 5 to 7, beginning this piece with the previous sentence, "Oh God, oh my God, hear me also, a widow."

Chapter	ix.	verses	11	to	14.
"	x.	"	1	"	5.
"	xiii.	"	6	"	10.
"	xv.	"	11	"	13.
"	xvi.	"	1	"	6.
"	xvi.	"	11	"	15.
"	xvi.	"	18	and	19.
"	xvi.	"	23	to	25.

Now, as in many other cases of noble history, apocryphal and other, I do not in the least care how far the literal facts are true. The conception of facts, and the idea of Jewish womanhood, are there, grand and real as a marble statue,—possession for all ages. And you will feel, after you have read this piece of history, or epic poetry, with honorable care, that there is somewhat more to be thought of and pictured in Judith, than painters have mostly found it in them to show you: that she is not merely the Jewish Delilah to the Assyrian Samson; but the mightiest, purest, brightest type of high passion in severe womanhood offered to our human memory. Sandro's picture is but slight; but it is true to her, and the only one I know that is; and after writing out these verses, you will see why he gives her that swift, peaceful motion, while you read in her face only sweet solemnity of dreaming thought. "My people delivered, and by my hand; and God has been gracious to His handmaid!" The triumph of Miriam over a fallen host, the fire of exulting mortal life in an immortal hour, the purity and severity of a guardian angel—all are here; and as her servant follows, carrying indeed the head, but invisible—(a mere thing to be carried—no more to be so much as thought of)—she looks only at her mistress,

with intense, servile, watchful love. Faithful, not in these days of fear only, but hitherto in all her life, and afterwards forever.

41. After you have seen it enough, look also for a little while at Angelico's Marriage and Death of the Virgin, in the same room; you may afterwards associate the three pictures always together in your mind. And, looking at nothing else to-day in the Uffizi, let us go back to Giotto's chapel.

We must begin with this work on our left hand, the Death of St. Francis; for it is the key to all the rest. Let us hear first what Mr. Crowe directs us to think of it. "In the composition of this scene, Giotto produced a masterpiece, which served as a model but too often feebly imitated by his successors. Good arrangement, variety of character and expression in the heads, unity and harmony in the whole, make this an exceptional work of its kind. As a composition, worthy of the fourteenth century, Ghirlandajo and Benedetto da Majano both imitated, without being able to improve it. No painter ever produced its equal except Raphael; nor could a better be created except in so far as regards improvement in the mere rendering of form."

To these inspiring observations by the rapturous Crowe, more cautious Cavalcasella * appends a refrigerating note, saying, "The St. Francis in the glory is new, but the angels are in part preserved. The rest has all been more or less retouched; and no judgment can be given as to the color of this—or any other (!)—of these works."

You are, therefore—instructed reader—called upon to admire a piece of art which no painter ever produced the equal of except Raphael; but it is unhappily deficient, according to Crowe, in the "mere rendering of form"; and, according to Signor Cavalcasella, "no opinion can be given as to its color."

* I venture to attribute the wiser note to Signor Cavalcasella, because I have every reason to put real confidence in his judgment. But it was impossible for any man engaged as he is to go over all the ground covered by so extensive a piece of critical work as these three volumes contain, with effective attention.

42. Warned thus of the extensive places where the ice is dangerous, and forbidden to look here either for form or color, you are to admire "the variety of character and expression in the heads." I do not myself know how these are to be given without form or color; but there appears to me, in my innocence, to be only one head in the whole picture, drawn up and down in different positions.

The "unity and harmony" of the whole—which make this an exceptional work of its kind—mean, I suppose, its general look of having been painted out of a scavenger's cart; and so we are reduced to the last article of our creed according to Crowe,—

"In the composition of this scene Giotto produced a masterpiece."

Well, possibly. The question is, what you mean by 'composition.' Which, putting modern criticism now out of our way, I will ask the reader to think, in front of this wreck of Giotto, with some care.

Was it, in the first place, to Giotto, think you, the "composition of a scene," or the conception of a fact? You probably, if a fashionable person, have seen the apotheosis of Margaret in 'Faust'? You know what care is taken, nightly, in the composition of that scene,—how the draperies are arranged for it; the lights turned off, and on; the fiddlestrings taxed for their utmost tenderness; the bassoons exhorted to a grievous solemnity.

You don't believe, however, that any real soul of a Margaret ever appeared to any mortal in that manner?

Here is an apotheosis also. Composed!—yes; figures high on the right and left, low in the middle, etc., etc., etc.

43. But the important questions seem to me, Was there ever a St. Francis?—*did* he ever receive stigmata?—*did* his soul go up to heaven—did any monk see it rising—and did Giotto mean to tell us so? If you will be good enough to settle these few small points in your mind first, the "composition" will take a wholly different aspect to you, according to your answer.

Nor does it seem doubtful to me what your answer, after investigation made, must be.

There assuredly was a St. Francis, whose life and works you had better study than either to-day's Galignani, or whatever, this year, may supply the place of the Tichborne case, in public interest.

His reception of the stigmata is, perhaps, a marvelous instance of the power of imagination over physical conditions; perhaps an equally marvelous instance of the swift change of metaphor into tradition; but assuredly, and beyond dispute, one of the most influential, significant, and instructive traditions possessed by the Church of Christ. And, that, if ever soul rose to heaven from the dead body, his soul did so rise, is equally sure.

And, finally, Giotto believed that all he was called on to represent, concerning St. Francis, really had taken place, just as surely as you, if you are a Christian, believe that Christ died and rose again; and he represents it with all fidelity and passion: but, as I just now said, he is a man of supreme common sense;—has as much humor and clearness of sight as Chaucer, and as much dislike of falsehood in clergy, or in professedly pious people: and in his gravest moments he will still see and say truly that what is fat, is fat—and what is lean, lean—and what is hollow, empty.

44. His great point, however, in this fresco, is the assertion of the reality of the stigmata against all question. There is not only one St. Thomas to be convinced; there are five;—one to each wound. Of these, four are intent only on satisfying their curiosity, and are peering or probing; one only kisses the hand he has lifted. The rest of the picture never was much more than a gray drawing of a noble burial service; of all concerned in which, one monk, only, is worthy to see the soul taken up to heaven; and he is evidently just the monk whom nobody in the convent thought anything of. (His face is all repainted; but one can gather this much, or little, out of it, yet.)

Of the composition, or "unity and harmony of the whole,"

as a burial service, we may better judge after we have looked at the brighter picture of St. Francis's Birth—birth spiritual, that is to say, to his native heaven; the uppermost, namely, of the three subjects on this side of the chapel. It is entirely characteristic of Giotto; much of it by his hand—all of it beautiful. All important matters to be known of Giotto you may know from this fresco.

“But we can't see it, even with our opera-glasses, but all foreshortened and spoiled. What is the use of lecturing us on this?”

That is precisely the first point which is essentially Giottesque in it; its being so out of the way! It is this which makes it a perfect specimen of the master. I will tell you next something about a work of his which you can see perfectly, just behind you on the opposite side of the wall; but that you have half to break your neck to look at this one, is the very first thing I want you to feel.

45. It is a characteristic—(as far as I know, quite a universal one)—of the greatest masters, that they never expect you to look at them;—seem always rather surprised if you want to; and not overpleased. Tell them you are going to hang their picture at the upper end of the table at the next great City dinner, and that Mr. So-and-so will make a speech about it; you produce no impression upon them whatever, or an unfavorable one. The chances are ten to one they send you the most rubbishy thing they can find in their lumber-room. But send for one of them in a hurry, and tell him the rats have gnawed a nasty hole behind the parlor door, and you want it plastered and painted over;—and he does you a masterpiece which the world will peep behind your door to look at forever.

I have no time to tell you why this is so; nor do I know why, altogether; but so it is.

Giotto, then, is sent for, to paint this high chapel: I am not sure if he chose his own subjects from the life of St. Francis: I think so,—but of course can't reason on the guess

securely. At all events, he would have much of his own way in the matter.

46. Now you must observe that painting a Gothic chapel rightly is just the same thing as painting a Greek vase rightly. The chapel is merely the vase turned upside down, and outside in. The principles of decoration are exactly the same. Your decoration is to be proportioned to the size of your vase; to be together delightful when you look at the cup, or chapel, as a whole; to be various and entertaining when you turn the cup round; (you turn *yourself* round in the chapel;) and to bend its heads and necks of figures about, as it best can, over the hollows, and ins and outs, so that anyhow, whether too long or too short—possible or impossible—they may be living, and full of grace. You will also please take it on my word to-day—in another morning walk you shall have proof of it—that Giotto was a pure Etruscan-Greek of the thirteenth century: converted indeed to worship St. Francis instead of Heracles; but as far as vase-painting goes, precisely the Etruscan he was before. This is nothing else than a large, beautiful, colored Etruscan vase you have got, inverted over your heads like a diving-bell.*

* I observe that recent criticism is engaged in proving all Etruscan vases to be of late manufacture, in imitation of archaic Greek. And I therefore must briefly anticipate a statement which I shall have to enforce in following letters. Etruscan art remains in its own Italian valleys, of the Arno and upper Tiber, in one unbroken series of work, from the seventh century before Christ, to this hour, when the country white-washer still scratches his plaster in Etruscan patterns. All Florentine work of the finest kind—Luca della Robbia's, Ghiberti's, Donatello's, Filippo Lippi's, Botticelli's, Fra Angelico's—is absolutely pure Etruscan, merely changing its subjects, and representing the Virgin instead of Athena, and Christ instead of Jupiter. Every line of the Florentine chisel in the fifteenth century is based on national principles of art which existed in the seventh century before Christ; and Angelico, in his convent of St. Dominic at the root of the hill of Fésolo, is as true an Etruscan as the builder who laid the rude stones of the wall along its crest—of which modern civilization has used the only arch that remained for cheap building stone. Luckily, I sketched it in 1845; but alas, too carelessly, —never conceiving of the brutalities of modern Italy as possible.

Accordingly, after the quatrefoil ornamentation of the top of the bell, you get two spaces at the sides under arches, very difficult to cramp one's picture into, if it is to be a picture only; but entirely provocative of our old Etruscan instinct of ornament. And, spurred by the difficulty, and pleased by the national character of it, we put our best work into these arches, utterly neglectful of the public below,—who will see the white and red and blue spaces, at any rate, which is all they will want to see, thinks Giotto, if he ever looks down from his scaffold.

47. Take the highest compartment, then, on the left, looking towards the window. It was wholly impossible to get the arch filled with figures, unless they stood on each other's heads; so Giotto ekes it out with a piece of fine architecture. Raphael, in the *Sposalizio*, does the same, for pleasure.

Then he puts two dainty little white figures, bending, on each flank, to stop up his corners. But he puts the taller inside on the right, and outside on the left. And he puts his Greek chorus of observant and moralizing persons on each side of his main action.

Then he puts one Choragus—or leader of chorus, supporting the main action—on each side. Then he puts the main action in the middle—which is a quarrel about that white bone of contention in the center. Choragus on the right, who sees that the bishop is going to have the best of it, backs him serenely. Choragus on the left, who sees that his impetuous friend is going to get the worst of it, is pulling him back, and trying to keep him quiet. The subject of the picture, which, after you are quite sure it is good as a decoration, but not till then, you may be allowed to understand, is the following. One of St. Francis's three great virtues being Obedience, he begins his spiritual life by quarreling with his father. He, I suppose in modern terms I should say, 'commercially invests' some of his father's goods in charity. His father objects to that investment; on which St. Francis runs away, taking what he can find about the house along with him. His father follows to claim his property, but finds it is all gone, al-

ready; and that St. Francis has made friends with the Bishop of Assisi. His father flies into an indecent passion, and declares he will disinherit him; on which St. Francis then and there takes all his clothes off, throws them frantically in his father's face, and says he has nothing more to do with clothes or father. The good Bishop, in tears of admiration, embraces St. Francis, and covers him with his own mantle.

48. I have read the picture to you as, if Mr. Spurgeon knew anything about art, Mr. Spurgeon would read it,—that is to say, from the plain, common-sense, Protestant side. If you are content with that view of it, you may leave the chapel, and, as far as any study of history is concerned, Florence also; for you can never know anything either about Giotto, or her.

Yet do not be afraid of my re-reading it to you from the mystic, nonsensical, and Papistical side. I am going to read it to you—if after many and many a year of thought, I am able—as Giotto meant it; Giotto being, as far as we know, then the man of strongest brain and hand in Florence; the best friend of the best religious poet of the world; and widely differing, as his friend did also, in his views of the world, from either Mr. Spurgeon, or Pius IX.

The first duty of a child is to obey its father and mother; as the first duty of a citizen is to obey the laws of his state. And this duty is so strict that I believe the only limits to it are those fixed by Isaac and Iphigenia. On the other hand, the father and mother have also a fixed duty to the child—not to provoke it to wrath. I have never heard this text explained to fathers and mothers from the pulpit, which is curious. For it appears to me that God will expect the parents to understand their duty to their children, better even than children can be expected to know their duty to their parents.

49. But farther. A *child's* duty is to obey its parents. It is never said anywhere in the Bible, and never was yet said in any good or wise book, that a man's, or woman's, is. *When*, precisely, a child becomes a man or a woman, it can

no more be said, than when it should first stand on its legs. But a time assuredly comes when it should. In great states, children are always trying to remain children, and the parents wanting to make men and women of them. In vile states, the children are always wanting to be men and women, and the parents to keep them children. It may be—and happy the house in which it is so—that the father's at least equal intellect, and older experience, may remain to the end of his life a law to his children, not of force, but of perfect guidance, with perfect love. Rarely it is so; not often possible. It is as natural for the old to be prejudiced as for the young to be presumptuous; and, in the change of centuries, each generation has something to judge of for itself.

But this scene, on which Giotto has dwelt with so great force, represents, not the child's assertion of his independence, but his adoption of another Father.

50. You must not confuse the desire of this boy of Assisi to obey God rather than man, with the desire of our young cockney Hopeful to have a latch-key, and a separate allowance. No point of duty has been more miserably warped and perverted by false priests, in all churches, than this duty of the young to choose whom they will serve. But the duty itself does not the less exist; and if there be any truth in Christianity at all, there will come, for all true disciples, a time when they have to take that saying to heart, "He that loveth father or mother more than me, is not worthy of me."

'*Loveth*'—observe. There is no talk of disobeying fathers or mothers whom you do *not* love, or of running away from a home where you would rather not stay. But to leave the home which is your peace, and to be at enmity with those who are most dear to you,—this, if there be meaning in Christ's words, one day or other will be demanded of His true followers.

And there *is* meaning in Christ's words. Whatever misuse may have been made of them,—whatever false prophets—and Heaven knows there have been many—have called the young children to them, not to bless, but to curse, the

assured fact remains, that if you will obey God, there will come a moment when the voice of man will be raised, with all its holiest natural authority, against you. The friend and the wise adviser—the brother and the sister—the father and the master—the entire voice of your prudent and keensighted acquaintance—the entire weight of the scornful stupidity of the vulgar world—for *once*, they will be against you, all at one. You have to obey God rather than man. The human race, with all its wisdom and love, all its indignation and folly, on one side,—God alone on the other. You have to choose.

That is the meaning of St. Francis's renouncing his inheritance; and it is the beginning of Giotto's gospel of Works. Unless this hardest of deeds be done first,—this inheritance of mammon and the world cast away,—all other deeds are useless. You cannot serve, cannot obey, God and mammon. No charities, no obediences, no self-denials, are of any use, while you are still at heart in conformity with the world. You go to church, because the world goes. You keep Sunday, because your neighbors keep it. But you dress ridiculously, because your neighbors ask it; and you dare not do a rough piece of work, because your neighbors despise it. You must renounce your neighbor, in his riches and pride, and remember him in his distress. That is St. Francis's 'disobedience.'

51. And now you can understand the relation of subjects throughout the chapel, and Giotto's choice of them.

The roof has the symbols of the three virtues of labor—Poverty, Chastity, Obedience.

A. Highest on the left side, looking to the window. The life of St. Francis begins in his renunciation of the world.

B. Highest on the right side. His new life is approved and ordained by the authority of the Church.

C. Central on the left side. He preaches to his own disciples.

D. Central on the right side. He preaches to the heathen.

E. Lowest on the left side. His burial.

F. Lowest on the right side. His power after death.

Besides these six subjects, there are, on the sides of the window, the four great Franciscan saints, St. Louis of France, St. Louis of Toulouse, St. Claire, and St. Elizabeth of Hungary.

So that you have in the whole series this much given you to think of: first, the law of St. Francis's conscience; then, his own adoption of it; then, the ratification of it by the Christian Church; then, his preaching it in life; then, his preaching it in death; and then, the fruits of it in his disciples.

52. I have only been able myself to examine, or in any right sense to see, of this code of subjects, the first, second, fourth, and the St. Louis and Elizabeth. I will ask *you* only to look at two more of them, namely, St. Francis before the Soldan, midmost on your right, and St. Louis.

The Soldan, with an ordinary opera-glass, you may see clearly enough; and I think it will be first well to notice some technical points in it.

If the little virgin on the stairs of the temple reminded you of one composition of Titian's, this Soldan should, I think, remind you of all that is greatest in Titian; so forcibly, indeed, that for my own part, if I had been told that a careful early fresco by Titian had been recovered in Santa Croce, I could have believed both report and my own eyes, more quickly than I have been able to admit that this is indeed by Giotto. It is so great that—had its principles been understood—there was in reality nothing more to be taught of art in Italy; nothing to be invented afterwards, except Dutch effects of light.

That there is no 'effect of light' here arrived at, I beg you at once to observe as a most important lesson. The subject is St. Francis challenging the Soldan's Magi,—fire-worshippers—to pass with him through the fire, which is blazing red at his feet. It is so hot that the two Magi on the other side of the throne shield their faces. But it is represented simply as a red mass of writhing forms of flame; and casts no fire-light whatever. There is no ruby color on anybody's nose;

there are no black shadows under anybody's chin; there are no Rembrandtesque gradations of gloom, or glitterings of sword-hilt and armor.

53. Is this ignorance, think you, in Giotto, and pure artlessness? He was now a man in middle life, having passed all his days in painting, and professedly, and almost contentiously, painting things as he saw them. Do you suppose he never saw fire cast firelight?—and he the friend of Dante! who of all poets is the most subtle in his sense of every kind of effect of light—though he has been thought by the public to know that of fire only. Again and again, his ghosts wonder that there is no shadow cast by Dante's body; and is the poet's friend, *because* a painter, likely, therefore, not to have known that mortal substance casts shadow, and terrestrial flame, light? Nay, the passage in the 'Purgatorio' where the shadows from the morning sunshine make the flames redder, reaches the accuracy of Newtonian science; and does Giotto, think you, all the while, see nothing of the sort?

The fact was, he saw light so intensely that he never for an instant thought of painting it. He knew that to paint the sun was as impossible as to stop it; and he was no trickster, trying to find out ways of seeming to do what he did not. I can paint a rose,—yes; and I will. I can't paint a red-hot coal; and I won't try to, nor seem to. This was just as natural and certain a process of thinking with *him*, as the honesty of it, and true science, were impossible to the false painters of the sixteenth century.

54. Nevertheless, what his art can honestly do to make you feel as much as he wants you to feel, about this fire, he will do; and that studiously. That the fire be *luminous* or not, is no matter just now. But that the fire is *hot*, he would have you to know. Now, will you notice what colors he has used in the whole picture? First, the blue background, necessary to unite it with the other three subjects, is reduced to the smallest possible space. St. Francis must be in gray, for that is his dress; also the attendant of one of the Magi is

in gray; but so warm, that, if you saw it by itself, you would call it brown. The shadow behind the throne, which Giotto knows he *can* paint, and therefore does, is gray also. The rest of the picture * in at least six-sevenths of its area—is either crimson, gold, orange, purple, or white, all as warm as Giotto could paint them; and set off by minute spaces only of intense black,—the Soldan's fillet at the shoulders, his eyes, beard, and the points necessary in the golden pattern behind. And the whole picture is one glow.

55. A single glance round at the other subjects will convince you of the special character in this; but you will recognize also that the four upper subjects, in which St. Francis's life and zeal are shown, are all in comparatively warm colors, while the two lower ones—of the death, and the visions after it—have been kept as definitely sad and cold.

Necessarily, you might think, being full of monks' dresses. Not so. Was there any need for Giotto to have put the priest at the foot of the dead body, with the black banner stooped over it in the shape of a grave? Might he not, had he chosen, in either fresco, have made the celestial visions brighter? Might not St. Francis have appeared in the center of a celestial glory to the dreaming Pope, or his soul been seen of the poor monk, rising through more radiant clouds? Look, however, how radiant, in the small space allowed out of the blue, they are in reality. You cannot anywhere see a lovelier piece of Giottesque color, though here, you have to mourn over the smallness of the piece, and its isolation. For the face of St. Francis himself is repainted, and all the blue sky; but the clouds and four sustaining angels are hardly retouched at all, and their iridescent and exquisitely graceful wings are left with really very tender and delicate care by the restorer of the sky. And no one but Giotto or Turner could have painted them.

56. For in all his use of opalescent and warm color, Giotto is exactly like Turner, as, in his swift expressional power, he

* The floor has been repainted; but though its gray is now heavy and cold, it cannot kill the splendor of the rest.

is like Gainsborough. All the other Italian religious painters work out their expression with toil; he only can give it with a touch. All the other great Italian colorists see only the beauty of color, but Giotto also its brightness. And none of the others, except Tintoret, understood to the full its symbolic power; but with those—Giotto and Tintoret—there is always, not only a color harmony, but a color secret. It is not merely to make the picture glow, but to remind you that St. Francis preaches to a fire-worshipping king, that Giotto covers the wall with purple and scarlet;—and above, in the dispute at Assisi, the angry father is dressed in red, varying like passion; and the robe with which his protector embraces St. Francis, blue, symbolizing the peace of Heaven. Of course certain conventional colors were traditionally employed by all painters; but only Giotto and Tintoret invent a symbolism of their own for every picture. Thus in Tintoret's picture of the fall of the manna, the figure of God the Father is entirely robed in white, contrary to all received custom: in that of Moses striking the rock, it is surrounded by a rainbow. Of Giotto's symbolism in color at Assisi, I have given account elsewhere.*

You are not to think, therefore, the difference between the color of the upper and lower frescoes unintentional. The life of St. Francis was always full of joy and triumph; his death, in great suffering, weariness, and extreme humility. The tradition of him reverses that of Elijah: living, he is seen in the chariot of fire; dying, he submits to more than the common sorrow of death.

57. There is, however, much more than a difference in color between the upper and lower frescoes. There is a difference in manner which I cannot account for; and above all, a very singular difference in skill,—indicating, it seems to me, that the two lower were done long before the others, and afterwards united and harmonized with them. It is of no interest to the general reader to pursue this question; but one point he can notice quickly, that the lower frescoes

* 'Fors Clavigera' for September, 1874.

depend much on a mere black or brown outline of the features, while the faces above are evenly and completely painted in the most accomplished Venetian manner:—and another, respecting the management of the draperies, contains much interest for us.

Giotto never succeeded, to the very end of his days, in representing a figure lying down, and at ease. It is one of the most curious points in all his character. Just the thing which he could study from nature without the smallest hindrance, is the thing he never can paint; while subtleties of form and gesture, which depend absolutely on their momentariness, and actions in which no model can stay for an instant, he seizes with infallible accuracy.

Not only has the sleeping Pope, in the right-hand lower fresco, his head laid uncomfortably on his pillow, but all the clothes on him are in awkward angles, even Giotto's instinct for lines of drapery failing him altogether when he has to lay it on a reposing figure. But look at the folds of the Soldan's robe over his knees. None could be more beautiful or right; and it is to me wholly inconceivable that the two paintings should be within even twenty years of each other in date—the skill in the upper one is so supremely greater. We shall find, however, more than mere truth in its casts of drapery, if we examine them.

58. They are so simply right, in the figure of the Soldan, that we do not think of them;—we see him only, not his dress. But we see dress first, in the figures of the discomfited Magi. Very fully draped personages these, indeed,—with trains, it appears, four yards long, and bearers of them.

The one nearest the Soldan has done his devoir as bravely as he could; would fain go up to the fire, but cannot; is forced to shield his face, though he has not turned back. Giotto gives him full sweeping breadth of fold; what dignity he can;—a man faithful to his profession, at all events.

The next one has no such courage. Collapsed altogether, he has nothing more to say for himself or his creed. Giotto hangs the cloak upon him, in Ghirlandajo's fashion, as from

a peg, but with ludicrous narrowness of fold. Literally, he is a 'shut-up' Magus—closed like a fan. He turns his head away, hopelessly. And the last Magus shows nothing but his back, disappearing through the door.

Opposed to them, in a modern work, you would have had a St. Francis standing as high as he could in his sandals, contemptuous, denunciatory; magnificently showing the Magi the door. No such thing, says Giotto. A somewhat mean man; disappointing enough in presence—even in feature; I do not understand his gesture, pointing to his forehead—perhaps meaning, 'my life, or my head, upon the truth of this.' The attendant monk behind him is terror-struck; but will follow his master. The dark Moorish servants of the Magi show no emotion—will arrange their masters' trains as usual, and decorously sustain their retreat.

59. Lastly, for the Soldan himself. In a modern work, you would assuredly have had him staring at St. Francis with his eyebrows up, or frowning thunderously at his Magi with them bent as far down as they would go. Neither of these aspects does he bear, according to Giotto. A perfect gentleman and king, he looks on his Magi with quiet eyes of decision; he is much the noblest person in the room—though an infidel, the true hero of the scene, far more than St. Francis. It is evidently the Soldan whom Giotto wants you to think of mainly, in this picture of Christian missionary work.

He does not altogether take the view of the Heathen which you would get in an Exeter Hall meeting. Does not expatiate on their ignorance, their blackness, or their nakedness. Does not at all think of the Florentine Islington and Pentonville, as inhabited by persons in every respect superior to the kings of the East; nor does he imagine every other religion but his own to be log-worship. Probably the people who really worship logs—whether in Persia or Pentonville—will be left to worship logs to their hearts' content, thinks Giotto. But to those who worship *God*, and who have obeyed the laws of heaven written in their hearts, and numbered the

stars of it visible to them,—to these, a nearer star may rise; and a higher God be revealed.

You are to note, therefore, that Giotto's Soldan is the type of all noblest religion and law, in countries where the name of Christ has not been preached. There was no doubt what king or people should be chosen: the country of the three Magi had already been indicated by the miracle of Bethlehem; and the religion and morality of Zoroaster were the purest, and in spirit the oldest, in the heathen world. Therefore, when Dante, in the nineteenth and twentieth books of the *Paradise*, gives his final interpretation of the law of human and divine justice in relation to the gospel of Christ—the lower and enslaved body of the heathen being represented by St. Philip's convert, ("Christians like these the Ethiop shall condemn")—the noblest state of heathenism is at once chosen, as by Giotto: "What may the *Persians* say unto *your* kings?" Compare also Milton,—

" At the Soldan's chair,
Defied the best of Paynim chivalry."

60. And now, the time is come for you to look at Giotto's St. Louis, who is the type of a Christian king.

You would, I suppose, never have seen it at all, unless I had dragged you here on purpose. It was enough in the dark originally—is trebly darkened by the modern painted glass—and dismissed to its oblivion contentedly by Mr. Murray's "Four saints, all much restored and repainted," and Messrs. Crowe and Cavalcasella's serene "The St. Louis is quite new."

Now, I am the last person to call any restoration whatever judicious. Of all destructive manias, that of restoration is the frightfullest and foolishhest. Nevertheless, what good, in its miserable way, it can bring, the poor art scholar must now apply his common sense to take; there is no use, because a great work has been restored, in now passing it by altogether, not even looking for what instruction we may still find in its design, which will be more intelligible, if the restorer has

had any conscience at all, to the ordinary spectator, than it would have been in the faded work. When, indeed, Mr. Murray's Guide tells you that a *building* has been 'magnificently restored,' you may pass the building by in resigned despair; for *that* means that every bit of the old sculpture has been destroyed, and modern vulgar copies put up in its place. But a restored picture of fresco will often be, to *you*, more useful than a pure one; and in all probability—if an important piece of art—it will have been spared in many places, cautiously completed in others, and still assert itself in a mysterious way—as Lionardo's Cenacolo does—through every phase of reproduction.*

* For a test of your feeling in the matter, having looked well at these two lower frescoes in this chapel, walk round into the next, and examine the lower one on your left hand as you enter that. You will find in your Murray that the frescoes in this chapel "were also, till lately, (1862) covered with whitewash"; but I happen to have a long critique of this particular picture written in the year 1845, and I see no change in it since then. Mr. Murray's critic also tells you to observe in it that "the daughter of Herodias playing on a violin is not unlike Perugino's treatment of similar subjects." By which Mr. Murray's critic means that the male musician playing on a violin, whom, without looking either at his dress, or at the rest of the fresco, he took for the daughter of Herodias, has a broad face. Allowing you the full benefit of this criticism,—there is still a point or two more to be observed. This is the only fresco near the ground in which Giotto's work is untouched, at least by the modern restorer. So felicitously safe it is, that you may learn from it at once and forever, what good fresco painting is—how quiet—how delicately clear—how little coarsely or vulgarly attractive—how capable of the most tender light and shade, and of the most exquisite and enduring color.

In this latter respect, this fresco stands almost alone among the works of Giotto; the striped curtain behind the table being wrought with a variety and fantasy of playing color which Paul Veronese could not better at his best.

You will find, without difficulty, in spite of the faint tints, the daughter of Herodias in the middle of the picture—slowly *moving*, not dancing, to the violin music—she herself playing on a lyre. In the farther corner of the picture, she gives St. John's head to her mother; the face of Herodias is almost entirely faded, which may be a farther guarantee to you of the safety of the rest. The subject of the Apocalypse, highest on the right, is one of the most interesting mythic pictures in Florence; nor do I know

61. But I can assure you, in the first place, that the St. Louis is by no means altogether new. I have been up at it, and found most lovely and true color left in many parts; the crown, which you will find, after our mornings at the Spanish chapel, is of importance, nearly untouched; the lines of the features and hair, though all more or less reproduced, still of definite and notable character; and the junction throughout of added color so careful, that the harmony of the whole, if not delicate with its old tenderness, is at least, in its coarser way, solemn and unbroken. Such as the figure remains, it still possesses extreme beauty—profoundest interest. And, as you can see it from below with your glass, it leaves little to be desired, and may be dwelt upon with more profit than nine out of ten of the renowned pictures of the Tribune or the Pitti. You will enter into the spirit of it better if I first translate for you a little piece from the *Fioretti di San Francesco*.

62. "*How St. Louis, King of France, went personally in the guise of a pilgrim, to Perugia, to visit the holy Brother Giles.*—St. Louis, King of France, went on pilgrimage to visit the sanctuaries of the world: and hearing the most great fame of the holiness of Brother Giles, who had been among the first companions of St. Francis, put it in his heart, and determined assuredly that he would visit him personally; wherefore he came to Perugia, where was then staying the said brother. And coming to the gate of the place of the Brothers, with few companions, and being unknown, he asked with great earnestness for Brother Giles, telling nothing to the porter who he was that asked. The porter, therefore, goes to Brother Giles, and says that there is a pilgrim asking for him at the gate. And by God it was inspired in him and revealed that it was the King of France; whereupon quickly with great fervor he left his cell and ran to the gate, and with-

any other so completely rendering the meaning of the scene between the woman in the wilderness, and the Dragon enemy. But it cannot be seen from the floor level; and I have no power of showing its beauty in words.

out any question asked, or ever having seen each other before, kneeling down together with greatest devotion, they embraced and kissed each other with as much familiarity as if for a long time they had held great friendship; but all the while neither the one nor the other spoke, but stayed, so embraced, with such signs of charitable love, in silence. And so having remained for a great while, they parted from one another, and St. Louis went on his way, and Brother Giles returned to his cell. And the King being gone, one of the brethren asked of his companion who he was, who answered that he was the King of France. Of which the other brothers being told, were in the greatest melancholy because Brother Giles had never said a word to him; and murmuring at it, they said, 'Oh, Brother Giles, wherefore hadst thou so country manners that to so holy a king, who had come from France to see thee and hear from thee some good word, thou hast spoken nothing?'

"Answered Brother Giles: 'Dearest brothers, wonder not ye at this, that neither I to him, nor he to me, could speak a word; for so soon as we had embraced, the light of the divine wisdom revealed and manifested, to me, his heart, and to him, mine; and so by divine operation we looked each in the other's heart on what we would have said to one another, and knew it better far than if we had spoken with the mouth, and with more consolation, because of the defect of the human tongue, which cannot clearly express the secrets of God, and would have been for discomfort rather than comfort. And know, therefore, that the King parted from me marvelously content, and comforted in his mind.'"

63. Of all which story, not a word, of course, is credible by any rational person.

Certainly not: the spirit, nevertheless, which created the story, is an entirely indisputable fact in the history of Italy and of mankind. Whether St. Louis and Brother Giles ever knelt together in the street of Perugia matters not a whit. That a king and a poor monk could be conceived to have thoughts of each other which no words could speak; and that

indeed the King's tenderness and humility made such a tale credible to the people,—this is what you have to meditate on here.

Nor is there any better spot in the world,—whencesoever your pilgrim feet may have journeyed to it, wherein to make up so much mind as you have in you for the making, concerning the nature of Kinghood and Princedom generally; and of the forgeries and mockeries of both which are too often manifested in their room. For it happens that this Christian and this Persian King are better painted here by Giotto than elsewhere by any one, so as to give you the best attainable conception of the Christian and Heathen powers which have both received, in the book which Christians profess to reverence, the same epithet as the King of the Jews Himself; anointed, or Christos:—and as the most perfect Christian Kinghood was exhibited in the life, partly real, partly traditional, of St. Louis, so the most perfect Heathen Kinghood was exemplified in the life, partly real, partly traditional, of Cyrus of Persia, and in the laws for human government and education which had chief force in his dynasty. And before the images of these two Kings I think therefore it will be well that you should read the charge to Cyrus, written by Isaiah. The second clause of it, if not all, will here become memorable to you—literally illustrating, as it does, the very manner of the defeat of the Zoroastrian Magi, on which Giotto founds his Triumph of Faith. I write the leading sentences continuously; what I omit is only their amplification, which you can easily refer to at home. (Isa. xlv. 24 to xlv. 13.)

64. “ Thus saith the Lord, thy Redeemer, and he that formed thee from the womb. I the Lord that maketh all; that stretcheth forth the heavens, alone; that spreadeth abroad the earth, alone; *that turneth wise men backward, and maketh their knowledge, foolish; that confirmeth the word of his Servant, and fulfilleth the counsel of his messengers:* that saith of Cyrus, He is my Shepherd, and shall perform

all my pleasure, even saying to Jerusalem, 'thou shalt be built,' and to the temple, 'thy foundations shall be laid.'

"Thus saith the Lord to his Christ;—to Cyrus, whose right hand I have holden, to subdue nations before him, and I will loose the loins of Kings.

"I will go before thee, and make the crooked places straight; I will break in pieces the gates of brass, and cut in sunder the bars of iron; and I will give *thee* the treasures of darkness, and hidden riches of secret places, that thou mayest know that I the Lord, which call thee by thy name, am the God of Israel.

"For Jacob my servant's sake, and Israel mine elect, I have even called thee by thy name; I have surnamed thee, though thou hast not known me.

"I am the Lord, and there is none else; there is no God beside me. I girded thee, though thou hast not known me. That they may know, from the *rising of the sun*, and from the west, that there is none beside me; I am the Lord, and there is none else. *I form the light*, and create darkness; I make peace and create evil. I the Lord do all these things.

"I have raised him up in Righteousness, and will direct all his ways; he shall build my city, and let go my captives, not for price nor reward, saith the Lord of Nations."

65. To this last verse, add the ordinance of Cyrus in fulfilling it, that you may understand what is meant by a King's being "raised up in Righteousness," and notice, with respect to the picture under which you stand, the Persian King's thought of the Jewish Temple.

"In the first year of the reign of Cyrus,* King Cyrus commanded that the house of the Lord at Jerusalem should be built again, *where they do service with perpetual fire;*" (the italicized sentence is Darius's, quoting Cyrus's decree—the decree itself worded thus,) "Thus saith Cyrus, King of Persia: † The Lord God of heaven hath given me all the kingdoms of the earth, and he hath charged me to build him an house at Jerusalem.

* 1st Esdras vi. 24.

† Ezra i. 3 and 2d Esdras ii. 3.

“Who is there among you of all his people?—his God be with him, and let him go up to Jerusalem which is in Judah, and let the men of his place help him with silver and with gold, and with goods and with beasts.”

Between which “bringing the prisoners out of captivity” and modern liberty, free trade, and anti-slavery eloquence, there is no small interval.

66. To these two ideals of Kinghood, then, the boy has reached, since the day he was drawing the lamb on the stone, as Cimabue passed by. You will not find two other such, that I know of, in the west of Europe; and yet there has been many a try at the painting of crowned heads,—and King George III. and Queen Charlotte, by Sir Joshua Reynolds, are very fine, no doubt. Also your black-muzzled kings of Velasquez, and Vandyke’s long-haired and white-handed ones; and Rubens’ riders—in those handsome boots. Pass such shadows of them as you can summon, rapidly before your memory—then look at this St. Louis.

His face—gentle, resolute, glacial-pure, thin-cheeked; so sharp at the chin that the entire head is almost of the form of a knight’s shield—the hair short on the forehead, falling on each side in the old Greek-Etruscan curves of simplest line, to the neck; I don’t know if you can see without being nearer, the difference in the arrangement of it on the two sides—the mass of it on the right shoulder bending inwards, while that on the left falls straight. It is one of the pretty changes which a modern workman would never dream of—and which assures me the restorer has followed the old lines rightly.

He wears a crown formed by an hexagonal pyramid, beaded with pearls on the edges; and walled round, above the brow, with a vertical fortress-parapet, as it were, rising into sharp-pointed spines at the angles: it is chasing of gold with pearl—beautiful in the remaining work of it; the Soldan wears a crown of the same general form; the hexagonal outline signifying all order, strength, and royal econ-

omy. We shall see farther symbolism of this kind, soon, by Simon Memmi, in the Spanish chapel.

67. I cannot tell you anything definite of the two other frescoes—for I can only examine one or two pictures in a day; and never begin with one till I have done with another; and I had to leave Florence without looking at these—even so far as to be quite sure of their subjects. The central one on the left is either the twelfth subject of Assisi—St. Francis in Ecstasy;* or the eighteenth—the Apparition of St. Francis at Arles;† while the lowest on the right may admit choice between two subjects in each half of it: my own reading of them would be—that they are the twenty-first and twenty-fifth subjects of Assisi, the Dying Friar‡ and Vision of Pope Gregory IX.;§ but Crowe and Cavalcasella may be right in their different interpretation;|| in any case, the meaning of the entire system of work remains unchanged, as I have given it above.

* “Represented” (next to St. Francis before the Soldan, at Assisi) “as seen one night by the brethren, praying, elevated from the ground, his hands extended like the cross, and surrounded by a shining cloud.”—*Lord Lindsay*.

† “St. Anthony of Padua was preaching at a general chapter of the order, held at Arles, in 1224, when St. Francis appeared in the midst, his arms extended, and in an attitude of benediction.”—*Lord Lindsay*.

‡ “A brother of the order, lying on his deathbed, saw the spirit of St. Francis rising to heaven, and springing forward, cried, ‘Tarry, Father, I come with thee!’ and fell back dead.”—*Lord Lindsay*.

§ “He hesitated, before canonizing St. Francis; doubting the celestial infliction of the stigmata. St. Francis appeared to him in a vision, and with a severe countenance reproving his unbelief, opened his robe, and, exposing the wound in his side, filled a vial with the blood that flowed from it, and gave it to the Pope, who awoke and found it in his hand.”—*Lord Lindsay*.

|| “As St. Francis was carried on his bed of sickness to St. Maria degli Angeli, he stopped at an hospital on the roadside, and ordering his attendants to turn his head in the direction of Assisi, he rose in his litter and said, ‘Blessed be thou amongst cities; may the blessing of God cling to thee, oh holy place, for by thee shall many souls be saved;’ and having said this, he lay down and was carried on to St. Maria degli Angeli. On the evening of the 4th of October his death was revealed at the very hour to the bishop of Assisi on Mount Sarzana.”—*Crowe and Cavalcasella*.

THE FOURTH MORNING.

THE VAULTED BOOK.

68. As early as may be this morning, let us look for a minute or two into the cathedral:—I was going to say, entering by one of the side doors of the aisles;—but we can't do anything else, which perhaps might not strike you unless you were thinking specially of it. There are no transept doors; and one never wanders round to the desolate front.

From either of the side doors, a few paces will bring you to the middle of the nave, and to the point opposite the middle of the third arch from the west end; where you will find yourself—if well in the mid-nave—standing on a circular slab of green porphyry, which marks the former place of the grave of the bishop Zenobius. The larger inscription, on the wide circle of the floor outside of you, records the translation of his body; the smaller one round the stone at your feet—“*quiescimus, domum hanc quum adimus ultimam*”—is a painful truth, I suppose, to travelers like us, who never rest anywhere now, if we can help it.

69. Resting here, at any rate, for a few minutes, look up to the whitewashed vaulting of the compartment of the roof next the west end.

You will see nothing whatever in it worth looking at. Nevertheless, look a little longer.

But the longer you look, the less you will understand why I tell you to look. It is nothing but a whitewashed ceiling: vaulted indeed,—but so is many a tailor's garret window, for that matter. Indeed, now that you have looked steadily for a minute or so, and are used to the form of the arch, it seems to become so small that you can almost fancy it the ceiling of a good-sized lumber-room in an attic.

Having attained to this modest conception of it, carry your eyes back to the similar vault of the second compartment, nearer you. Very little further contemplation will reduce that also to the similitude of a moderately-sized attic. And then, resolving to bear, if possible—for it is worth while,—the cramp in your neck for another quarter of a minute, look right up to the third vault, over your head; which, if not, in the said quarter of a minute, reducible in imagination to a tailor's garret, will at least sink, like the two others, into the semblance of a common arched ceiling, of no serious magnitude or majesty.

70. Then, glance quickly down from it to the floor, and round at the space, (included between the four pillars,) which that vault covers.

It is sixty feet square,*—four hundred square yards of pavement,—and I believe you will have to look up again more than once or twice, before you can convince yourself that the mean-looking roof is swept indeed over all that twelfth part of an acre. And still less, if I mistake not, will you, without slow proof, believe, when you turn yourself round towards the east end, that the narrow niche (it really looks scarcely more than a niche) which occupies, beyond the dome, the position of our northern choirs, is indeed the unnarrowed elongation of the nave, whose breadth extends round you like a frozen lake. From which experiments and comparisons, your conclusion, I think, will be, and I am sure it ought to be, that the most studious ingenuity could not produce a design for the interior of a building which should more completely hide its extent, and throw away every common advantage of its magnitude, than this of the Duomo of Florence.

Having arrived at this, I assure you, quite securely tenable conclusion, we will quit the cathedral by the western door, for once; and, as quickly as we can walk, return to the Green cloister of Sta. Maria Novella; and place ourselves on the

* Approximately. Thinking I could find the dimensions of the Duomo anywhere, I only paced it myself,—and cannot, at this moment, lay my hand on English measurements of it.

south side of it, so as to see as much as we can of the entrance, on the opposite side, to the so-called 'Spanish Chapel.'

There is, indeed, within the opposite cloister, an arch of entrance, plain enough. But no chapel, whatever, externally manifesting itself as worth entering. No walls, or gable, or dome, raised above the rest of the outbuildings—only two windows with traceries opening into the cloister; and one story of inconspicuous building above. You can't conceive there should be any effect of *magnitude* produced in the interior, however it has been vaulted or decorated. It may be pretty, but it cannot possibly look large.

71. Entering it, nevertheless, you will be surprised at the effect of height, and disposed to fancy that the circular window cannot surely be the same you saw outside, looking so low. I had to go out again, myself, to make sure that it was.

And gradually, as you let the eye follow the sweep of the vaulting arches, from the small central keystone-boss, with the Lamb carved on it, to the broad capitals of the hexagonal pillars at the angles, there will form itself in your mind, I think, some impression not only of vastness in the building, but of great daring in the builder; and at last, after closely following out the lines of a fresco or two, and looking up and up again to the colored vaults, it will become to you literally one of the grandest places you ever entered, roofed without a central pillar. You will begin to wonder that human daring ever achieved anything so magnificent.

But just go out again into the cloister, and recover knowledge of the facts. It is nothing like so large as the blank arch which at home we filled with brickbats or leased for a gin-shop under the last railway we made to carry coals to Newcastle. And if you pace the floor it covers, you will find it is three feet less one way, and thirty feet less the other, than that single square of the cathedral which was roofed like a tailor's loft,—accurately, for I did measure here, myself, the floor of the Spanish chapel is fifty-seven feet by thirty-two.

72. I hope, after this experience, that you will need no

farther conviction of the first law of noble building, that grandeur depends on proportion and design—not, except in a quite secondary degree, on magnitude. Mere size has, indeed, under all disadvantage, some definite value; and so has mere splendor. Disappointed as you may be, or at least ought to be, at first, by St. Peter's, in the end you will feel its size,—and its brightness. These are all you *can* feel in it—it is nothing more than the pump-room at Leamington built bigger;—but the bigness tells at last: and Corinthian pillars whose capitals alone are ten feet high, and their acanthus leaves three feet six long, give you a serious conviction of the infallibility of the Pope, and the fallibility of the wretched Corinthians, who invented the style indeed, but built with capitals no bigger than hand-baskets.

Vastness *has* thus its value. But the glory of architecture is to be—whatever you wish it to be,—lovely, or grand, or comfortable,—on such terms as it can easily obtain. Grand, by proportion—lovely, by imagination—comfortable, by ingenuity—secure, by honesty: with such materials and in such space as you have got to give it.

Grand—by proportion, I said; but ought to have said by *disproportion*. Beauty is given by the relation of parts—size, by their comparison. The first secret in getting the impression of size in this chapel is the *disproportion* between pillar and arch. You take the pillar for granted,—it is thick, strong, and fairly high above your head. You look to the vault springing from it—and it soars away, nobody knows where.

73. Another great, but more subtle secret is in the *inequality* and *immeasurability* of the curved lines; and the *hiding* of the form by the color.

To begin, the room, I said, is fifty-seven feet wide, and only thirty-two deep. It is thus nearly one-third larger in the direction across the line of entrance, which gives to every arch, pointed and round, throughout the roof, a different spring from its neighbors.

The vaulting ribs have the simplest of all profiles—that of

a chamfered beam. I call it simpler than even that of a square beam; for in barking a log you cheaply get your chamfer, and nobody cares whether the level is alike on each side: but you must take a larger tree, and use much more work to get a square. And it is the same with stone.

And this profile is—fix the conditions of it, therefore, in your mind—venerable in the history of mankind as the origin of all Gothic tracery-moldings; venerable in the history of the Christian Church as that of the roof ribs, both of the lower church of Assisi, bearing the scroll of the precepts of St. Francis, and here at Florence, bearing the scroll of the faith of St. Dominic. If you cut it out in paper, and cut the corners off farther and farther at every cut, you will produce a sharper profile of rib, connected in architectural use with differently treated styles. But the entirely venerable form is the massive one in which the angle of the beam is merely, as it were, secured and completed in stability by removing its too sharp edge.

74. Well, the vaulting ribs, as in Giotto's vault, then, have here, under their painting, this rude profile: but do not suppose the vaults are simply the shells cast over them. Look how the ornamental borders fall on the capitals! The plaster receives all sorts of indescribably accommodating shapes—the painter contracting and stopping his design upon it as it happens to be convenient. You can't measure anything; you can't exhaust; you can't grasp,—except one simple ruling idea, which a child can grasp, if it is interested and intelligent: namely, that the room has four sides with four tales told upon them; and the roof four quarters, with another four tales told on those. And each history in the sides has its correspondent history in the roof. Generally, in good Italian decoration, the roof represents constant, or essential facts; the walls, consecutive histories arising out of them, or leading up to them. Thus here, the roof represents in front of you, in its main quarter, the Resurrection—the cardinal fact of Christianity; opposite (above behind you), the Ascension; on your left hand, the descent of the Holy Spirit;

on your right, Christ's perpetual presence with His Church, symbolized by His appearance on the Sea of Galilee to the disciples in the storm.

The correspondent walls represent: under the first quarter (the Resurrection), the story of the Crucifixion; under the second quarter (the Ascension), the preaching after that departure, that Christ will return—symbolized here in the Dominican church by the consecration of St. Dominic; under the third quarter (the Descent of the Holy Spirit), the disciplining power of human virtue and wisdom; under the fourth quarter (St. Peter's Ship), the authority and government of the State and Church.

75. The order of these subjects, chosen by the Dominican monks themselves, was sufficiently comprehensive to leave boundless room for the invention of the painter. The execution of it was first intrusted to Taddeo Gaddi, the best architectural master of Giotto's school, who painted the four quarters of the roof entirely, but with no great brilliancy of invention, and was beginning to go down one of the sides, when, luckily, a man of stronger brain, his friend, came from Siena. Taddeo thankfully yielded the room to him; he joined his own work to that of his less able friend in an exquisitely pretty and complimentary way; throwing his own greater strength into it, not competitively, but gradually and helpfully. When, however, he had once got himself well joined, and softly, to the more simple work, he put his own force on with a will; and produced the most noble piece of pictorial philosophy * and divinity existing in Italy.

This pretty, and, according to all evidence by me attainable, entirely true, tradition has been all but lost, among the ruins of fair old Florence, by the industry of modern mason-critics—who, without exception, laboring under the primal (and necessarily unconscious) disadvantage of not knowing

* There is no philosophy *taught* either by the school of Athens, or Michael Angelo's 'Last Judgment'; and the 'Disputa' is merely a graceful assemblage of authorities, the effects of such authority not being shown.

good work from bad, and never, therefore, knowing a man by his hand or his thoughts, would be in any case sorrowfully at the mercy of mistakes in a document; but are tenfold more deceived by their own vanity, and delight in overthrowing a received idea, if they can.

76. Farther; as every fresco of this early date has been retouched again and again, and often painted half over,—and as, if there has been the least care or respect for the old work in the restorer, he will now and then follow the old lines and match the old colors carefully in some places, while he puts in clearly recognizable work of his own in others,—two critics, of whom one knows the first man's work well, and the other the last's, will contradict each other to almost any extent on the securest grounds. And there is then no safe refuge for an uninitiated person but in the old tradition, which, if not literally true, is founded assuredly on some root of fact which you are likely to get at, if ever, through *it* only. So that my general directions to all young people going to Florence or Rome would be very short: "Know your first volume of Vasari, and your two first books of Livy; look about you, and don't talk, nor listen to talking."

77. On those terms, you may know, entering this chapel, that in Michael Angelo's time, all Florence attributed these frescoes to Taddeo Gaddi and Simon Memmi.

I have studied neither of these artists myself with any speciality of care, and cannot tell you, positively, anything about them or their works. But I know good work from bad, as a cobbler knows leather, and I can tell you positively the quality of these frescoes, and their relation to contemporary panel pictures; whether authentically ascribed to Gaddi, Memmi, or any one else, it is for the Florentine Academy to decide.

The roof, and the north side, down to the feet of the horizontal line of sitting figures, were originally third-rate work of the school of Giotto; the rest of the chapel was originally, and most of it is still, magnificent work of the school of Siena. The roof and north side have been heavily repainted

in many places; the rest is faded and injured, but not destroyed in its most essential qualities. And now, farther, you must bear with just a little bit of tormenting history of painters.

There were two Gaddis, father and son—Taddeo and Angelo. And there were two Memmis, brothers—Simon and Philip.

78. I dare say you will find, in the modern books, that Simon's real name was Peter, and Philip's real name was Bartholomew; and Angelo's real name was Taddeo, and Taddeo's real name was Angelo; and Memmi's real name was Gaddi, and Gaddi's real name was Memmi. You may find out all that at your leisure, afterwards, if you like. What it is important for you to know here, in the Spanish Chapel, is only this much that follows:—There were certainly two persons once called Gaddi, both rather stupid in religious matters and high art; but one of them, I don't know or care which, a true decorative painter of the most exquisite skill, a perfect architect, an amiable person, and a great lover of pretty domestic life. Vasari says this was the father, Taddeo. He built the Ponte Vecchio; and the old stones of it—which if you ever look at anything on the Ponte Vecchio but the shops, you may still see (above those wooden pent-houses) with the Florentine shield—were so laid by him that they are unshaken to this day.

He painted an exquisite series of frescoes at Assisi from the Life of Christ; in which,—just to show you what the man's nature is,—when the Madonna has given Christ into Simeon's arms, she can't help holding out her own arms to him, and saying, (visibly,) “Won't you come back to mamma?” The child laughs his answer—“I love *you*, mamma; but I'm quite happy just now.”

Well; he, or he and his son together, painted these four quarters of the roof of the Spanish Chapel. They were very probably much retouched afterwards by Antonio Veneziano, or whomsoever Messrs. Crowe and Cavalcasella please; but that architecture in the Descent of the Holy Ghost is by the

man who painted the north transept of Assisi, and there need be no more talk about the matter,—for you never catch a restorer doing his old architecture right again. And farther, the ornamentation of the vaulting ribs is by the man who painted the Entombment, No. 31 in the Galerie des Grands Tableaux, in the catalogue of the Academy for 1874. Whether that picture is Taddeo Gaddi's or not, as stated in the catalogue, I do not know; but I know the vaulting ribs of the Spanish Chapel are painted by the same hand.

79. Again: of the two brothers Memmi, one or other, I don't know or care which, had an ugly way of turning the eyes of his figures up and their mouths down; of which you may see an entirely disgusting example in the four saints attributed to Filippo Memmi on the cross wall of the north (called always in Murray's Guide the south, because he didn't notice the way the church was built) transept of Assisi. You may, however, also see the way the mouth goes down in the much repainted, but still characteristic No. 9 in the Uffizi.*

Now I catch the wring and verjuice of this brother again and again, among the minor heads of the lower frescoes in this Spanish Chapel. The head of the Queen beneath Noah, in the Limbo (see below), is unmistakable.

Farther: one of the two brothers, I don't care which, had a way of painting leaves; of which you may see a notable example in the rod in the hand of Gabriel in that same picture of the Annunciation in the Uffizi. No Florentine painter, or any other, ever painted leaves as well as that, till you get down to Sandro Botticelli, who did them much better. But the man who painted that rod in the hand of Gabriel, painted the rod in the right hand of Logic in the

* This picture bears the inscription (I quote from the French catalogue, not having verified it myself), "Simon Martini, et Lippus Memmi de Senis me pinxerunt." I have no doubt whatever, myself, that the two brothers worked together on these frescoes of the Spanish Chapel: but that most of the Limbo is Philip's, and the Paradise, scarcely with his interference, Simon's.

Spanish Chapel,—and nobody else in Florence, or the world, *could*.

80. Farther (and this is the last of the antiquarian business): you see that the frescoes on the roof are, on the whole, dark, with much blue and red in them, the white spaces coming out strongly. This is the characteristic coloring of the partially defunct school of Giotto, becoming merely decorative, and passing into a colorist school which connected itself afterwards with the Venetians. There is an exquisite example of all its specialities in the little Annunciation in the Uffizi, No. 14, attributed to Angelo Gaddi, in which you see the Madonna is stupid, and the angel stupid, but the color of the whole, as a piece of painted glass, lovely; and the execution exquisite,—at once a painter's and jeweler's; with subtle sense of chiaroscuro underneath; (note the delicate shadow of the Madonna's arm across her breast).

The head of this school was (according to Vasari) Taddeo Gaddi; and henceforward, without further discussion, I shall speak of him as the painter of the roof of the Spanish Chapel,—not without suspicion, however, that his son Angelo may hereafter turn out to have been the better decorator, and the painter of the frescoes from the life of Christ in the north transept of Assisi,—with such assistance as his son or scholars might give—and such change or destruction as time, Antonio Veneziano, or the last operations of the Tuscan railroad company, may have effected on them.

81. On the other hand, you see that the frescoes on the walls are of paler colors, the blacks coming out of these clearly, rather than the whites; but the pale colors, especially, for instance, the whole of the Duomo of Florence in that on your right, very tender and lovely. Also, you may feel a tendency to express much with outline, and draw, more than paint, in the most interesting parts; while in the duller ones, nasty green and yellow tones come out, which prevent the effect of the whole from being very pleasant. These characteristics belong, on the whole, to the school of Siena; and they indicate here the work *assuredly* of a man of vast power

and most refined education, whom I shall call without further discussion, during the rest of this and the following morning's study, Simon Memmi.

82. And of the grace and subtlety with which he joined his work to that of the Gaddis, you may judge at once by comparing the Christ standing on the fallen gate of the Limbo, with the Christ in the Resurrection above. Memmi has retained the dress and imitated the general effect of the figure in the roof so faithfully that you suspect no difference of mastership—nay, he has even raised the foot in the same awkward way: but you will find Memmi's foot delicately drawn—Taddeo's hard and rude: and all the folds of Memmi's drapery cast with unbroken grace and complete gradations of shade, while Taddeo's are rigid and meager; also in the heads, generally Taddeo's type of face is square in feature, with massive and inelegant clusters or volutes of hair and beard; but Memmi's, delicate and long in feature, with much divided and flowing hair, often arranged with exquisite precision, as in the finest Greek coins. Examine successively in this respect only the heads of Adam, Abel, Methuselah, and Abraham, in the Limbo, and you will not confuse the two designers any more. I have not had time to make out more than the principal figures in the Limbo, of which indeed the entire dramatic power is centered in the Adam and Eve. The latter dressed as a nun, in her fixed gaze on Christ, with her hands clasped, is of extreme beauty: and however feeble the work of any early painter may be, in its descent and grave inoffensiveness it guides the imagination unerringly to a certain point. How far you are yourself capable of filling up what is left untold, and conceiving, as a reality, Eve's first look on this her child, depends on no painter's skill, but on your own understanding. Just above Eve is Abel, bearing the lamb: and behind him, Noah, between his wife and Shem: behind them, Abraham, between Isaac and Ishmael, (turning from Ishmael to Isaac); behind these, Moses, between Aaron and David. I have not identified the others, though I find the white-bearded figure behind Eve called Me-

thuselah in my notes: I know not on what authority. Looking up from these groups, however, to the roof painting, you will at once feel the imperfect grouping and ruder features of all the figures; and the greater depth of color. We will dismiss these comparatively inferior paintings at once.

83. The roof and walls must be read together, each segment of the roof forming an introduction to, or portion of, the subject on the wall below. But the roof must first be looked at alone, as the work of Taddeo Gaddi, for the artistic qualities and failures of it.

I. In front, as you enter, is the compartment with the subject of the Resurrection. It is the traditional Byzantine composition: the guards sleeping, and the two angels in white saying to the women, "He is not here," while Christ is seen rising with the flag of the Cross.

But it would be difficult to find another example of the subject, so coldly treated—so entirely without passion or action. The faces are expressionless; the gestures powerless. Evidently the painter is not making the slightest effort to conceive what really happened, but merely repeating and spoiling what he could remember of old design, or himself supply of commonplace for immediate need. The "Noli me tangere," on the right, is spoiled from Giotto, and others before him; a peacock, wofully plumeless and colorless, a fountain, an ill-drawn toy-horse, and two toy-children gathering flowers, are emaciate remains of Greek symbols. He has taken pains with the vegetation, but in vain. Yet Taddeo Gaddi was a true painter, a very beautiful designer, and a very amiable person. How comes he to do that Resurrection so badly?

In the first place, he was probably tired of a subject which was a great strain to his feeble imagination: and gave it up as impossible: doing simply the required figures in the required positions. In the second, he was probably at the time despondent and feeble because of his master's death. See Lord Lindsay, II. 273, where also it is pointed out that in the effect of the light proceeding from the figure of Christ,

Taddeo Gaddi indeed was the first of the Giottisti who showed true sense of light and shade. But until Lionardo's time the innovation did not materially affect Florentine art.

84. II. The Ascension (opposite the Resurrection, and not worth looking at, except for the sake of making more sure our conclusions from the first fresco). The Madonna is fixed in Byzantine stiffness, without Byzantine dignity.

III. The Descent of the Holy Ghost, on the left hand. The Madonna and disciples are gathered in an upper chamber: underneath are the Parthians, Medes, Elamites, etc., who hear them speak in their own tongues.

Three dogs are in the foreground—their mythic purpose the same as that of the two verses which affirm the fellowship of the dog in the journey and return of Tobias: namely, to mark the share of the lower animals in the gentleness given by the outpouring of the Spirit of Christ.

IV. The Church sailing on the Sea of the World. St. Peter coming to Christ on the water.

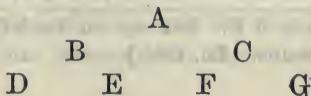
I was too little interested in the vague symbolism of this fresco to examine it with care,—the rather that the subject beneath, the literal contest of the Church with the world, needed more time for study in itself alone than I had for all Florence.

85. On this, and the opposite side of the chapel, are represented, by Simon Memmi's hand, the teaching power of the Spirit of God, and the saving power of the Christ of God, in the world, according to the understanding of Florence in his time.

We will take the side of Intellect first, beneath the pouring forth of the Holy Spirit.

In the point of the arch beneath, are the three Evangelical Virtues. Without these, says Florence, you can have no science. Without Love, Faith, and Hope—no intelligence.

Under these are the four Cardinal Virtues, the entire group being thus arranged:—



A, Charity; flames issuing from her head and hands.

B, Faith; holds cross and shield, quenching fiery darts. This symbol, so frequent in modern adaptation from St. Paul's address to personal faith, is rare in older art.

C, Hope, with a branch of lilies.

D, Temperance; bridles a black fish, on which she stands.

E, Prudence, with a book.

F, Justice, with crown and baton.

G, Fortitude, with tower and sword.

Under these are the great prophets and apostles: on the left,* David, St. Paul, St. Mark, St. John; on the right, St. Matthew, St. Luke, Moses, Isaiah, Solomon. In the midst of the Evangelists, St. Thomas Aquinas, seated on a Gothic throne.

86. Now observe, this throne, with all the canopies below it, and the complete representation of the Duomo of Florence opposite, are of finished Gothic of Orcagna's school—later than Giotto's Gothic. But the building in which the apostles are gathered at the Pentecost is of the early Romanesque mosaic school, with a wheel window from the Duomo of Assisi, and square windows from the Baptistery of Florence. And this is always the type of architecture used by Taddeo Gaddi: while the finished Gothic could not possibly have been drawn by him, but is absolute evidence of the later hand.

Under the line of prophets, as powers summoned by their voices, are the mythic figures of the seven theological or spiritual, and the seven geological or natural sciences: and under the feet of each of them, the figure of its Captain-teacher to the world.

The Seven Earthly Sciences begin with Grammar, on the right, farthest from the window, and are to be read towards the window, thus:—

1. Grammar.	(Under her)	Priscian.
2. Rhetoric.	“	Cicero.
3. Logic.	“	Aristotle.

* I can't find my note of the first one on the left; answering to Solomon, opposite. [It is Job. Ed. 1894.]

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|----------------|-------------|------------------------|
| 4. Music. | (Under her) | Tubal-Cain. |
| 5. Astronomy. | “ | Atlas, king of Fésolé. |
| 6. Geometry. | “ | Euclid. |
| 7. Arithmetic. | “ | Pythagoras. |

Then follow, read from right to left, the Heavenly Sciences, thus:—

- | | | |
|----------------------------|-------------|---------------------------|
| 1. Civil Law. | (Under her) | The Emperor Justinian. |
| 2. Canon Law. | “ | Pope Clement V. |
| 3. Practical Theology. | “ | Peter Lombard. |
| 4. Contemplative Theology. | “ | Boethius. |
| 5. Dogmatic Theology. | “ | Dionysius the Areopagite. |
| 6. Mystic Theology. | “ | St. John Damascene. |
| 7. Polemic Theology. | “ | St. Augustine. |

87. Here, then, you have pictorially represented, the system of manly education, supposed in old Florence to be that necessarily instituted in great earthly kingdoms or republics, animated by the Spirit shed down upon the world at Pentecost. How long do you think it will take you, or ought to take, to see such a picture? We were to get to work this morning, as early as might be: you have probably allowed half an hour for Santa Maria Novella; half an hour for San Lorenzo; an hour for the museum of sculpture at the Bargello; an hour for shopping; and then it will be lunch time, and you mustn't be late, because you are to leave by the afternoon train, and must positively be in Rome to-morrow morning. Well, of your half-hour for Santa Maria Novella,—after Ghirlandajo's choir, Orcagna's transept, and Cimabue's Madonna, and the painted windows, have been seen properly, there will remain, suppose, at the utmost, a quarter of an hour for the Spanish Chapel. That will give you two minutes and a half for each side, two for the ceiling, and three for studying Murray's explanations or mine. Two minutes and a half you have got, then—(and I observed, during my five weeks' work in the chapel, that English visitors seldom gave so much)—to read this scheme given you by Simon Memmi of human spiritual education. In order to understand the purport of it, in any the smallest degree, you must summon to your memory, in the course of these two

minutes and a half, what you happen to be acquainted with of the doctrines and characters of Pythagoras, Aristotle, Dionysius the Areopagite, St. Augustine, and the emperor Justinian, and having further observed the expressions and actions attributed by the painter to these personages, judge how far he has succeeded in reaching a true and worthy ideal of them, and how large or how subordinate a part in his general scheme of human learning he supposes their peculiar doctrines properly to occupy. For myself, being, to my much sorrow, now an old person, and, to my much pride, an old-fashioned one, I have not found my powers either of reading or memory in the least increased by any of Mr. Stephenson's or Mr. Wheatstone's inventions; and though indeed I came here from Lucca in three hours instead of a day, which it used to take, I do not think myself able, on that account, to see any picture in Florence in less time than it took formerly, or even obliged to hurry myself in any investigations connected with it.

88. Accordingly, I have myself taken five weeks to see the quarter of this picture of Simon Memmi's: and can give you a fairly good account of that quarter, and some partial account of a fragment or two of those on the other walls: but, alas! only of their pictorial qualities in either case; for I don't myself know anything whatever, worth trusting to, about Pythagoras, or Dionysius the Areopagite; and have not had, and never shall have, probably, any time to learn much of them; while in the very feeblest light only,—in what the French would express by their excellent word 'lueur,'—I am able to understand something of the characters of Atlas, Aristotle, and Justinian. But this only increases in me the reverence with which I ought to stand before the work of a painter, who was not only a master of his own craft, but so profound a scholar and theologian as to be able to conceive this scheme of picture, and write the divine law by which Florence was to live. Which Law, written in the northern page of this Vaulted Book, we will begin quiet interpretation of, if you care to return hither, to-morrow morning.

THE FIFTH MORNING.

THE STRAIT GATE.

[I have revised the text of this edition with care; holding it one of the most important minor letters I have written, in its aphorisms of principle with respect to education. Some valuable observations and corrections, made for me by Mr. G. Collingwood, at Florence, this year, are subjoined in the notes at the bottom of the pages.—J. RUSKIN. *Lucca, October 12th, 1882.*] *

89. As you return this morning to St. Mary's, you may as well observe—the matter before us being concerning gates,—that the western façade of the church is of two periods. Your Murray refers it all to the latest of these,—I forget when, and do not care,—in which the largest flanking columns, and the entire effective mass of the walls, with their ribboned mosaics and high pediment, were built in front of, and above, what the barbarian renaissance designer chose to leave of the pure old Dominican church. You may see his ungainly jointing at the pedestals of the great columns, running through the pretty, parti-colored base, which with the 'Strait' Gothic doors, and the entire lines of the fronting and flanking tombs, (where not restored by the devil-begotten brood of modern Florence), is of pure, and exquisitely severe and refined, fourteenth-century Gothic, with superbly carved bearings on its shields. The small detached line of tombs on the left, untouched in its sweet color and living weed ornament, I would fain have painted, stone by stone: but one can never draw in front of a church in these republican days; for all the blackguard children of the neighborhood come to howl,

* These notes are signed G. C.; while those added by the author are marked by brackets [*sic*].

and throw stones, on the steps, and the ball or stone play against these sculptured tombs, as a dead wall adapted for that purpose only, is incessant in the fine days when I could have worked.*

If you enter by the door most to the left, or north, and turn immediately to the right, on the interior of the wall of the façade is an Annunciation, visible enough because well preserved, though in the dark; and extremely pretty in its way,—of the decorated and ornamental school following Giotto:—I can't guess by whom, nor does it much matter; but it is well to look at it by way of contrast with the delicate, intense, slightly decorated design of Memmi,—in which, when you return into the Spanish Chapel, you will feel the dependence for its effect on broad masses of white and pale amber, where the decorative school would have had mosaic of red, blue, and gold.

90. Our first business this morning must be to read and understand the writing on the book held open by St. Thomas Aquinas, for that informs us of the meaning of the whole picture.

It is this text from the book of Wisdom VII. 6.

“ Optavi, et datus est mihi sensus.
Invocavi, et venit in me Spiritus Sapientiae,
Et preposui illam regnis et sedibus.”

“ I willed, and Sense was given me.
I prayed, and the Spirit of Wisdom came upon me,
And I set her before (preferred her to) kingdoms and thrones.”

The common translation in our English Apocrypha loses the entire meaning of this passage, which—not only as the statement of the experience of Florence in her own education, but as universally descriptive of the process of all noble education whatever—we had better take pains to understand.

First, says Florence, “ I willed, (in sense of resolutely

[* I have since bought for St. George's Museum a drawing of these three arches, carried out with more patience than I possessed, by Mr. Henry R. Newman.]

desiring,) and Sense was given me." You must begin your education with the distinct *resolution* to know what is true, and choice of the strait and rough road to such knowledge. This choice is offered to every youth and maid at some moment of their life; choice between the easy downward road, so broad that we can dance down it in companies, and the steep narrow way, which we must enter alone.* Then, and for many a day afterwards, they need that form of persistent Option, and Will: but day by day, the 'Sense' of the rightness of what they have done, deepens on them, not in consequence of the effort, but by gift granted in reward of it. And the Sense of difference between right and wrong, and between beautiful and unbeautiful things, is confirmed in the heroic, and fulfilled in the industrious, soul.

That is the process of education in the earthly sciences, and the morality connected with them. Reward given to faithful *Volition*.

91. Next, when Moral and Physical senses are perfect, comes the desire for education in the higher world, where the senses are no more our Teachers, but the Maker of the senses. And that teaching, we cannot get by labor, but only by petition.

"Invocavi, et venit in me Spiritus Sapientiæ"—"I prayed, and the Spirit of Wisdom," (not, you observe, *was given*, † but,) "*came* upon me." The *personal* power of Wisdom: the "*σοφία*" or Santa Sophia, to whom the first great Christian temple was dedicated. This higher wisdom, governing by her presence, all earthly conduct, and by her teaching, all earthly art, Florence tells you, she obtained only by prayer.

92. And these two Earthly and Divine sciences are expressed beneath, in the symbols of their divided powers;—

[* "Alone" is too strong a word for what I meant—namely, that, however helped or guided by our friends, masters, and predecessors, each of us determines for himself, in the critical moments, what his life is to be, when it is right. To the wrong, we may always flow with the stream.]

[† I, in careless error, wrote "was given" in 'Fors Clavigera.']

Seven terrestrial, seven Celestial, whose names have been already indicated to you:—in which figures I must point out one or two technical matters before attempting their interpretation. They are all by Simon Memmi originally; but repainted, many of them all over, some hundred years later,—(certainly after the discovery of America, as you will see *)—by an artist of considerable power, and some feeling for the general action of the figures; but of no refinement or carefulness. He dashes paint in huge spaces over the subtle old work; puts in his own chiaro-oscuro where all had been shadeless, and his own violent color where all had been pale; and repaints the faces, so as to make them, to his notion, prettier and more human: some of this upper work has, however, come away since, and the original outline, at least, is traceable; while in the face of the Logic, the Music, and one or two others, the original work is very pure. Being most interested myself in the earthly sciences, I had a scaffolding put up, made on a level with them, and examined them inch by inch, and the following report will be found accurate until next repainting.

For interpretation of them, you must always take the central figure of the Science, with the little medallion above it, and the figure below, all together. Which I proceed to do, reading first from left to right for the earthly sciences, and then from right to left the heavenly ones, to the center, where their two highest powers sit, side by side.

93. We begin, then, with the first in the list given above, (Vaulted Book, § 86): Grammar, in the corner farthest from the window.

SECTION I.

The Seven Earthly Sciences; read from right to left, from the corner opposite the window, to the center of the side wall.

I. GRAMMAR: more properly Grammaticè, “Grammatic Art,” the Art of *Letters* or “Literature,” or—using the word which to some English ears will carry most weight with it,—

* See *post*, § 110. Ed.

“Scripture,” and its use. The Art of faithfully reading what has been written for our learning; and of clearly writing what we would make immortal of our thoughts. Power which consists first in recognizing letters; secondly, in forming them; thirdly, in the understanding and choice of words which, errorless, shall express our thought. Severe exercises all, reaching—very few living persons know, how far; beginning properly in childhood, and then only to be truly acquired. It is wholly impossible—this I say from too sorrowful experience—to conquer by any effort of time, habits of the hand (much more of head, and soul,) with which the vase of flesh has been formed and filled in youth,—the law of God being that parents *shall compel * the child in the day of its obedience into habits of hand, and eye, and soul, which, when it is old, shall not, by any strength, or any weakness, be departed from.*

“Enter ye in,” therefore, says Grammaticè, “at the Strait Gate.” She points through it with her rod, holding a fruit (?) for reward, in her left hand. The gate is very strait indeed—her own waist no less so,† her hair fastened close. She had once a white veil binding it, which is lost. Not a gushing form of literature, this,—or in any wise disposed to subscribe to Mudie’s, my English friends—or even patronize Tauchnitz editions of—what is the last new novel you see ticketed up to-day in Mr. Goodban’s window? She looks kindly down, nevertheless, to the three children whom she is teaching—two boys and a girl: (Qy. Does this mean that one girl out of every two should not be able to read or write? I am quite willing to accept that inference, for my own part,—should perhaps even say, two girls out of three). This girl is of the highest classes, crowned,‡ her golden hair fall-

[* I italicize this primary sentence: the word ‘compel’ may be read in its mildest sense by really good parents, whose steps their children follow in pure love.]

† I don’t see that her waist is straighter than other people’s; and she has neither stays nor girdle.—(G. C.)

‡ The crown has been since effaced by advancing decay.—(G. C.)

ing behind her, the Florentine girdle round her hips—(not waist, the object being to leave the lungs full play; but to keep the dress always well down in dancing or running). The boys are of good birth also, the nearest one with luxuriant curly hair—only the profile of the farther one seen. All reverent and eager. Above, the medallion is of a figure looking at a fountain. Underneath, Lord Lindsay says, Priscian, and is, I doubt not, right.

94. *Technical Points.*—The figure is said by Crowe to be entirely repainted. The *dress* is so, throughout,—both the hands also;—the fruit, and rod. But the eyes, mouth, hair above the forehead, and outline of the rest, with the faded veil, and happily, the traces left of the children, are genuine; the strait gate perfectly so, in the color underneath, though reinforced; and the action of the entire figure is well preserved: but there is a curious question about both the rod and fruit. Seen close, the former perfectly assumes the shape of folds of dress gathered up over the raised right arm, and I am not absolutely sure that the restorer has not mistaken the folds—at the same time changing a pen or style into a rod. The fruit also I have doubts of, as fruit is not so rare at Florence that it should be made a reward. It is entirely and roughly repainted, and is oval in shape. In Giotto's *Charity*, luckily not restored, at Assisi, the guide-books have always mistaken the heart she holds for an apple:—and my own belief is that originally, the *Grammaticè* of Simon Memmi made with her right hand the sign which said, "Enter ye in at the Strait Gate," and with her left, the sign which said, "My son, give me thine Heart."

95. II. RHETORIC. Next to learning how to read and write, you are to learn to speak; and, young ladies and gentlemen, observe,—to speak as little as possible, it is farther implied, till you *have* learned.

In the streets of Florence at this day you may hear much of what some people would call "rhetoric"—very passionate speaking indeed, and quite "from the heart"—such hearts

as the people have got.* That is to say, you never hear a word uttered but in a rage, either just ready to burst, or for the most part, explosive instantly: everybody—man, woman, or child—roaring out their incontinent, foolish, infinitely contemptible opinions and wills, on every smallest occasion, with flashing eyes, hoarsely shrieking and wasted voices,—insane hope to drag by vociferation whatever they would have, out of man and God.

Now consider Simon Memmi's Rhetoric. The science of *Speaking*; primarily of making oneself *heard* therefore: which is not to be done by shouting. She alone, of all the sciences, carries a scroll: and although a speaker, gives you something to read. It is not thrust forward at you at all, but held quietly down with her beautiful depressed right hand; her left hand set coolly and strongly on her side.

And you will find that, thus, she alone of all the sciences *needs no use of her hands*. All the others have some important business for them;—she, none. She can do all with her lips, holding scroll, or bridle, or what you will, with her right hand, her left on her side.

Again, look at the talkers in the streets of Florence, and see how, being essentially *unable* to talk, they try to make lips of their fingers! How they poke, wave, flourish, point, jerk, shake finger and fist at their antagonists—dumb essentially, all the while, if they knew it; unpersuasive and ineffectual, as the shaking of tree branches in the wind.

96. You will at first think her figure ungainly and stiff. It is so, partly; the dress being more coarsely repainted than in any other of the series. But she is meant to be both stout and strong. What she has to say is indeed to persuade you, if possible; but assuredly to overpower you. And *she* has not the Florentine girdle, for she does not want to move. She has her girdle broad at the waist—of all the sciences, you would at first have thought, the one that most needed breath!

[* Very noble hearts the *people*,—meaning the peasantry,—have: but the streets of the great cities bring all evil to the surface, and continually multiply and reverberate its power.]

No, says Simon Memmi. You want breath to run, or dance, or fight with. But to speak!—If you know *how*, you can do your work with few words; very little of this pure Florentine air will be enough, if you shape it rightly.

Note, also, that calm setting of her hand against her side. You think Rhetoric should be glowing, fervid, impetuous? No, says Simon Memmi. Above all things,—*cool*.

And now let us read what is written on her scroll:—*Mulceo, dum loquor, varios induta colores.*

Her chief function, to melt; make soft, thaw the hearts of men with kind fire; to overpower with peace; and bring rest, with rainbow colors. The chief mission of all words that they should be of comfort.

You think the function of words is to excite? Why, a red rag will do that, or a blast through a brass pipe. But to give calm and gentle *heat*; to be as the south wind, and the iridescent rain, to all bitterness of frost; and bring at once strength, and healing. This is the work of human lips, taught of God.

97. One farther and final lesson is given in the medallion above. Aristotle, and too many modern rhetoricians of his school, thought there could be good speaking in a false cause. But above Simon Memmi's Rhetoric is *Truth*, with her mirror.*

There is a curious feeling, almost innate in men, that though they are bound to speak truth, in speaking to a single person, they may lie as much as they please, provided they lie to two or more people at once. There is the same feeling about killing: most people would shrink from shooting one innocent man; but will fire a mitrailleuse contentedly into an innocent regiment.

When you look down from the figure of the Science, to that of Cicero, beneath, you will at first think it entirely overthrows my conclusion that Rhetoric has no need of her hands. For Cicero, it appears, has *three* instead of two.

* Same figure as Rhetoric, plus the mirror. Memmi therefore thinks Rhetoric and Truth are one.—(G. C.)

The uppermost, at his chin, is the only genuine one. That raised, with the finger up, is entirely false. That on the book, is repainted so as to defy conjecture of its original action.

But observe how the gesture of the true one confirms, instead of overthrowing, what I have said above. Cicero is not speaking at all, but profoundly thinking *before* he speaks. It is the most abstractedly thoughtful face to be found among all the philosophers; and very beautiful. The whole is under Solomon, in the line of Prophets.

98. *Technical Points*.—These two figures have suffered from restoration more than any others, but the right hand of Rhetoric is still entirely genuine, and the left, except the ends of the fingers. The ear, and hair just above it, are quite safe, the head well set on its original line, but the crown of leaves rudely retouched, and then faded. All the lower part of the figure of Cicero has been not only repainted, but changed; the face is genuine—I believe retouched; but so cautiously and skillfully, that it is probably now more beautiful than at first.

99. III. LOGIC. The science of Reasoning, or more accurately Reason herself, or pure intelligence.

Science to be gained *after* that of Expression, says Simon Memmi; so, young people, it appears that, though you must not speak before you have been taught how to speak, you may yet properly speak before you have been taught how to think.

For, indeed, it is only by frank speaking that you *can* learn how to think. And it is no matter how wrong the first thoughts you have may be, provided you express them clearly,—and are willing to have them put right.

Fortunately, nearly all of this beautiful figure is virtually safe, the outlines pure everywhere, and the face perfect: the *prettiest*, as far as I know, which exists in Italian art of this early date. It is subtle to the extreme in gradations of color: the eyebrows drawn, not with a sweep of the brush, but with

separate cross touches in the line of their growth—absolutely pure in arch; the nose straight and fine; the lips—playful slightly, proud, unerringly cut; the hair flowing in sequent waves, ordered as if in musical time; head perfectly upright on the shoulders; the height of the brow completed by a crimson frontlet set with pearls, surmounted by a fleur-de-lys.

Her shoulders are exquisitely drawn, her white jacket fitting close to soft, yet scarcely rising breasts; her arms singularly strong, at perfect rest; her hands, exquisitely delicate. In her right, she holds a branching and leaf-bearing rod (the syllogism); in her left, a scorpion with double sting (the dilemma)—more generally, the powers of rational construction and dissolution.*

Beneath her, Aristotle,—intense keenness of search in his half-closed eyes.

Medallion above (less expressive than usual), a man writing, with his head stooped.

The whole under Isaiah, in the line of Prophets.

100. *Technical Points*.—The only parts of this figure which have suffered seriously in repainting are the leaves of the rod, and the scorpion. I have no idea, as I said above, what the background once was; it is now a mere mess of scabbled gray, carried over the vestiges, still with care much redeemable, of the richly ornamental extremity of the rod, which was a cluster of green leaves on a black ground. But the scorpion is indecipherably injured, most of it confused repainting, mixed with the white of the dress, the double sting emphatic enough still, but on the first lines.

The Aristotle is very genuine throughout, except his hat, and I think that must be nearly on the old lines, though I cannot trace them. They are good lines, new or old.

101. IV. MUSIC. After you have learned to reason, young people, of course you will be very grave, if not dull, you think. No, says Simon Memmi. By no means anything

[* See farther the notes on Polemic Theology, § 116.]

of the kind. After learning to reason, you will learn to sing; for you will want to. There is so much reason for singing in the sweet world, when one thinks rightly of it. None for grumbling, provided always you *have* entered in at the strait gate. You will sing all along the road then, in a little while, in a manner pleasant for other people to hear.

This figure has been one of the loveliest in the series, an extreme refinement and tender severity being aimed at throughout. She is crowned, not with laurel, but with small leaves,—I am not sure what they are, being too much injured: the face thin, abstracted, wistful; the lips not far open in their low singing; the hair rippling softly on the shoulders. She plays on a small organ, richly ornamented with Gothic tracery, the slope of it set with crockets like those of Santa Maria del Fiore. Simon Memmi means that *all* music must be “sacred.” Not that you are never to sing anything but hymns; but that whatever is rightly called music, or work of the Muses, is divine in help and healing.

The actions of both hands are singularly sweet. The right is one of the loveliest things I ever saw done in painting. She is keeping down one note only, with her third finger, seen under the raised fourth: the thumb, just passing under; all the curves of the fingers exquisite, and the pale light and shade of the rosy flesh relieved against the ivory white and brown of the notes. Only the thumb and end of the forefinger are seen of the left hand, but they indicate enough its light pressure on the bellows. Fortunately, all these portions of the fresco are absolutely intact.

102. Underneath, Tubal-Cain. Not Jubal, as you would expect. Jubal is the inventor of musical instruments. Tubal-Cain, thought the old Florentines, invented harmony itself. They, the best smiths in the world, knew the differences in tones of hammer-strokes on anvil. Curiously enough, the only piece of true part-singing, done beautifully and joyfully, which I have heard this year (1874) in Italy, (being south of Alps exactly six months, and ranging from Genoa to Palermo) was out of a busy smithy at Perugia.

Of bestial howling, and entirely frantic vomiting up of hopelessly damned souls through their still carnal throats, I have heard more than, please God, I will ever endure the hearing of again, in one of His summers.

You think Tubal-Cain very ugly? Yes. Much like a shaggy baboon: not accidentally, but with most scientific understanding of baboon character. Men must have looked like that, before they had invented harmony, or felt that one note differed from another, says Simon Memmi. Darwinism, like all widely popular and widely mischievous fallacies, has many a curious gleam and grain of truth in its tissue.

Under Moses.

Medallion, a youth drinking. Otherwise, you might have thought only church music meant, and not feast music also.

103. *Technical Points.*—The Tubal-Cain, one of the most entirely pure and precious remnants of the old painting: nothing lost, and nothing but the redder ends of his beard retouched. Green dress of Music, in the body and over limbs, entirely repainted: it was once beautifully embroidered: sleeves, partly genuine, hands perfect, face and hair nearly so. Leaf crown faded and broken away, but not retouched.

104. V. ASTRONOMY. By her ancient name Astrology, as we say Theology, not Theonomy: the knowledge of so much of the stars as we can know wisely; not the attempt to define their laws for them. Not that it is unbecoming of us to find out, if we can, that they move in ellipses, and so on; but it is no business of ours. What effects their rising and setting have on man, and beast, and leaf; what their times and changes are, seen and felt in this world, it is our business to know, passing our nights, if wakefully, by that divine candlelight, and no other.

She wears a dark purple robe; holds in her left hand the hollow globe with golden zodiac and meridians: lifts her right hand in noble awe.

“When I consider the heavens, the work of Thy fingers, the moon and the stars, which Thou hast ordained.”

Crowned with gold, her dark hair in elliptic waves, bound with glittering chains of pearl. Her eyes dark, lifted.

105. Beneath her, Zoroaster,* entirely noble and beautiful, the delicate Persian head made softer still by the elaborately wreathed silken hair, twisted into the pointed beard, and into tapering plaits, falling on his shoulders. The head entirely thrown back, he looks up with no distortion of the delicately arched brow: writing, as he gazes.

For the association of the religion of the Magi with their own, in the mind of the Florentines of this time, see “Before the Soldan.”

The dress must always have been white, because of its beautiful opposition to the purple above and that of Tubal-Cain beside it. But it has been too much repainted to be trusted anywhere, nothing left but a fold or two in the sleeves. The cast of it from the knees down is entirely beautiful, and I suppose on the old lines; but the restorer also could throw a fold well when he chose. The warm light which relieves the purple of Atlas above, is lain in by him. I don't know if I should have liked it better, flat, as it was, against the dark purple; it seems to me quite beautiful now. The full red flush on the face of the Astronomy is the restorer's doing also. She was much paler, if not quite pale.

Under St. Luke.

Medallion, a stern man, with sickle and spade. For the flowers, and for us, when stars have risen and set such and such times;—remember.

* Atlas! according to poor Vasari, and sundry modern guides. I find Vasari's mistakes usually of this *brightly* blundering kind. In matters needing research, after a while, I find *he* is right, usually.

[And I *did* find him right myself, after farther 'research'—the 'Atlas' in question being the builder and first king of Fésolé! but how far Magian or Persian, I know not; only in the fresco he is, I believe, represented as watching the stars for the hour to lay the first stone of his city. —J. R., Florence, October, 1882.]

106. *Technical Points*.—Left hand, globe, most of the important folds of the purple dress, eyes, mouth, hair in great part, and crown, genuine. Golden tracery on border of dress lost; extremity of falling folds from left sleeve altered and confused, but the confusion prettily got out of. Right hand and much of face and dress repainted.

Zoroaster's head quite pure. Dress repainted, but carefully, leaving the hair untouched. Right hand and pen, now a common feathered quill, entirely repainted, but dexterously and with feeling. The hand was once slightly different in position, and held, most probably, a style.

107. VI. GEOMETRY. You have now learned, young ladies and gentlemen, to read, to speak, to think, to sing, and to see. You are getting old, and will have soon to think of being married; you must learn to build your house, therefore. Here is your carpenter's square for you, and you may safely and wisely contemplate the ground a little, and the measures and laws relating to that, seeing you have got to abide upon it:—and have properly looked at the stars; not before then, lest, had you studied the ground first, you might perchance never have raised your heads from it.

Geometry is here considered as the arbitress of all laws of practical labor, issuing in beauty.

She looks down, a little puzzled, greatly interested, holding her carpenter's square in her left hand, not wanting that but for practical work; following a diagram with her right.

Her beauty, although soft and in curves, I commend to your notice, as the exact opposite of what a vulgar designer would have imagined for her. Note the wreath of hair at the back of her head, which, though fastened by a *spiral* fillet, escapes at last, and flies off loose in a sweeping curve. Contemplative Theology is the only other of the sciences who has such wavy hair.

Beneath her, Euclid, in white turban. Very fine and original work throughout; but nothing of special interest in him.

Under St. Matthew.

Medallion, a soldier with a straight sword (best for science of defense), octagon shield, helmet like the beehive cap of Canton Vaud. As the secondary use of music in feasting, so the secondary use of geometry in war—her noble art being all in sweetest peace—is shown in the medallion.

Technical Points.—It is more than fortunate that in nearly every figure, the original outline of the hair is safe. Geometry's has scarcely been retouched at all, except at the ends, once in single knots, now in confused double ones. The hands, girdle, most of the dress, and her black carpenter's square, are original. Face and breast repainted.

108. VII. ARITHMETIC. Having built your house, young people, and understanding the light of heaven, and the measures of earth, you may marry—and can't do better. And here is now your conclusive science, which you will have to apply, all your days, to all your affairs.

The Science of Number. Infinite in solemnity of use in Italy at this time; including, of course, whatever was known of the higher abstract mathematics and mysteries of numbers, but revered especially in its vital necessity to the prosperity of families and kingdoms; and first fully so understood here in commercial Florence.

Her hand lifted, with two fingers bent, two straight, solemnly enforcing on your attention her primal law—Two and two are—four, you observe,—not five, as those unhappy usurers think.

Under her, Pythagoras.

Above, medallion of king, with scepter and globe, counting money. Have you ever chanced to read carefully Carlyle's account of the foundation of the existing Prussian empire, in economy?

You can, at all events, consider with yourself a little, what empire this Queen of the terrestrial sciences must hold over the rest, if they are to be put to good use; or what depth and

breadth of application there is in the brief parables of the counted cost of Power, and number of Armies.

To give a very minor, but characteristic instance. I have always felt that, with my intense love of the Alps, I ought to have been able to make a drawing of Chamouni, or the vale of Cluse, which should give people more pleasure than a photograph; but I always wanted to do it as I saw it, and engrave pine for pine, and crag for crag, like Albert Dürer. I broke my strength down for many a year, always tiring of my work, or finding the leaves drop off, or the snow come on, before I had well begun what I meant to do. If I had only *counted* my pines first, and calculated the number of hours necessary to do them in the manner of Dürer, I should have saved the available drawing time of some five years, spent in vain effort. But Turner counted his pines, and did all that could be done for them, and rested content with that.

109. And how often in greater affairs of life, the arithmetical part of the business must become the dominant one! How many and how much have we? How many and how much do we want? How constantly does noble Arithmetic of the finite lose itself in base Avarice of the Infinite, and in blind imagination of it! In counting of minutes, is our arithmetic ever solicitous enough? In counting our days, is she ever severe enough? How we shrink from reckoning in their decades, the diminished store of them! And if we ever pray the solemn prayer that we may be taught to number them, do we even try to do it after praying?

Technical Points.—The Pythagoras almost entirely genuine. The upper figures, from this inclusive to the outer wall, I have not been able to examine thoroughly, my scaffolding not extending beyond the Geometry.

Here then we have the sum of sciences—seven, according to the Florentine mind—necessary to the secular education of man and woman. Of these the modern average respectable English gentleman and gentlewoman know usually only

a little of the last, and entirely hate the prudent applications of that: being unacquainted, except as they chance here and there to pick up a broken piece of information, with either grammar, rhetoric, music,* astronomy, or geometry; and are not only unacquainted with logic, or the use of reason, themselves, but instinctively antagonistic to its use by anybody else.

110. We are now to read the series of the Divine sciences, beginning at the opposite side, next the window.

SECTION II.

The Seven Heavenly Sciences; read from left to right; from the corner next the window to the center of the wall.

I. CIVIL LAW. Civil, or 'of citizens,' not only as distinguished from Ecclesiastical, but from *Local* law. She is the universal Justice of the peaceful relations of men throughout the world, therefore holds the globe, with its *three* quarters, white, as being justly governed, in her left hand.

She is also the law of eternal *equity*, not of *erring statute*; therefore holds her sword *level* across her breast.

She is the foundation of all other divine science. To know anything whatever about God, you must begin by being Just.

Dressed in red, *which in these frescoes is always a sign of power, or zeal*; but her face very calm, gentle, and beautiful. Her hair bound close, and crowned by the royal circlet of gold, with pure thirteenth-century strawberry-leaf ornament.

Under her, the Emperor Justinian, in blue, with conical miter of white and gold; the face in profile very beautiful. The imperial staff in his right hand, the Institutes in his left.

Medallion, a figure, apparently in distress, appealing for justice. (Trajan's suppliant widow?)

* In all the classic, simple, and eternal modes of it.

Technical Points.—The three divisions of the globe in her hand were originally inscribed ASIA, AFRICA, EUROPE. The restorer has ingeniously changed AF into AME—RICA. Faces, both of the science and emperor, little retouched, nor any of the rest altered.

111. II. CHRISTIAN LAW. After the justice which rules men, comes that which rules the Church of Christ. The distinction is not between secular law and ecclesiastical authority, but between the rough equity of humanity, and the discriminate compassion of Christian discipline.

In full, straight-falling, golden robe, with white mantle over it; a church in her left hand; her right raised, with the forefinger lifted; (indicating heavenly source of all Christian law? or warning?)

Head-dress, a white veil floating into folds in the air. You will find nothing in these frescoes without significance; and as the escaping hair of Geometry indicates the infinite conditions of lines of the higher orders, so the floating veil here indicates that the higher relations of Christian justice are indefinable. So her golden mantle signifies that it is a glorious and excellent justice beyond that which unchristian men conceive; while the severely falling lines of the folds, which form a kind of gabled niche for the head of the Pope beneath, correspond with the strictness of true Church discipline, and of the firmer as well as more luminous statute.

Beneath, Pope Clement V., in red, lifting his hand, not in the position of benediction, but, I suppose, of injunction, —only the forefinger straight, the second a little bent, the two last quite. Note the strict level of the book; and the vertical directness of the key.

The medallion puzzles me. It looks like a figure counting money.*

Technical Points.—Fairly well preserved; but the face of

* Probably a doctor expounding laws: the points of his fingers being touched in order.—(G. C.)

the Science retouched: the grotesquely false perspective of the Pope's tiara, one of the most curiously naïve examples of the entirely ignorant feeling after merely scientific truth of form which still characterized Italian art.

Type of church interesting in its extreme simplicity; no idea of transept, campanile, or dome.

112. III. PRACTICAL THEOLOGY. The beginning of the knowledge of God being Human Justice, and its elements defined by Christian Law, the application of the law so defined follows, first with respect to man, then with respect to God.

“Render unto Cæsar the things that are Cæsar's—and to God the things that are God's.”

We have therefore now following, two sciences, one of our duty to men, the other to their Maker.

This is the first: duty to men. She holds a circular medallion, representing Christ preaching on the Mount, and points with her right hand to the earth.

The sermon on the Mount is perfectly expressed by the craggy pinnacle in front of Christ, and the high dark horizon. There is curious evidence throughout all these frescoes of Simon Memmi's having read the Gospels with a quite clear understanding of their innermost meaning.

I have called this science, Practical Theology:—the instructive knowledge, that is to say, of what God would have us to do, personally, in any given human relation: and the speaking His Gospel therefore by act. “Let your light so shine before men.”

She wears a green dress, like Music; her hair in the Arabian arch, with jeweled diadem.

Under David.

Medallion, Almsgiving.

Beneath her, Peter Lombard.

Technical Points.—It is curious that while the instinct of perspective was not strong enough to enable any painter at

this time to foreshorten a foot, it yet suggested to them the expression of elevation by raising the horizon.

I have not examined the retouching. The hair and diadem at least are genuine, the face is dignified and compassionate, and much on the old lines.

113. IV. DEVOTIONAL THEOLOGY. Giving glory to God, or, more accurately, whatever feelings He desires us to have towards Him, whether of affection or awe.

This is the science or method of *devotion* for Christians universally, just as the Practical Theology is their science or method of *action*.

In blue and red: a narrow black rod still traceable in the left hand; I am not sure of its meaning. ("Thy rod and Thy staff, they comfort me?") The other hand open in admiration, like Astronomy's; but Devotion's is held at her breast. Her head very characteristic of Memmi, with up-turned eyes, and Arab arch in hair.

Beneath her, Boethius.

Medallion, a mother lifting her hands: teaching her child the first elements of religion?

Under St. Paul.

Technical Points.—Both figures very genuine, and the painting of Boethius's black book, as of the red one in the next fresco, worth notice, showing how pleasant and interesting the commonest things become, when well painted.

114. V. DOGMATIC THEOLOGY. After action and worship, thought becoming too wide and difficult, the need of dogma becomes felt; the assertion, that is, within limited range, of the things that are to be believed.

Since whatever pride and folly pollute Christian scholarship naturally delight in dogma, the science itself cannot but be in a kind of disgrace among sensible men: nevertheless it would be difficult to overvalue the peace and security which have been given to humble persons by forms of creed; and

it is evident that either there is no such thing as theology, or some of its knowledge must be thus, if not expressible, at least reducible within certain limits of expression, so as to be protected from misinterpretation.

In red,—again the sign of power,—crowned with a black (once golden?) triple * crown, emblematic of the Trinity. The left hand holding a scoop for winnowing corn; the other points upwards. “Prove all things—hold fast that which is good, or of God.”

Under her, Dionysius the Areopagite—mending his pen! But I am doubtful of Lord Lindsay’s identification of this figure, and the action is curiously common and meaningless. It may have meant that meditative theology is essentially a writer, not a preacher.

Medallion, female figure laying hands on breast. †

Under St. Mark.

Technical Points.—I have not examined the upper figure; the lower one is almost entirely genuine, and the painting of the red book quite exemplary in fresco style.

115. VI. MYSTIC THEOLOGY. ‡ Monastic science, above dogma, and attaining to new revelation by reaching higher spiritual states.

In white robes, her left hand gloved (I don’t know why) § —holding chalice. She wears a nun’s veil fastened under her chin, her hair fastened close, like Grammar’s, showing her necessarily monastic life; all states of mystic spiritual life involving retreat from much that is allowable in the material and practical world.

* Three-cusped, better than triple, which would mean the papal tiara; and I think it was *outlined* with black only.—(G. C.)

† The right laid on the breast, the left holds her girdle.—(G. C.)

‡ Blunderingly in the guide-books called ‘Faith’!

§ I think the remnant of a falcon’s wing is traceable above the hand.—(G. C.) [Well,—but if so—why? Monks don’t ride a-hawking. Does it mean the falcon’s sight—or soaring—or is it the Egyptian falcon emblem of immortality?]

There is no possibility of denying this fact, infinite as the evils are which have arisen from misconception of it. They have been chiefly induced by persons who falsely pretended to lead monastic life, and led it without having natural faculty for it. But many more lamentable errors have arisen from the pride of really noble persons, who have thought it would be a more pleasing thing to God to be a sybil or a witch, than a useful housewife. Pride is always somewhat involved even in the true effort: the scarlet head-dress in the form of a horn on the forehead in the fresco may perhaps indicate this, both here and in the Contemplative Theology.

Under St. John.

Medallion unintelligible, to me. A woman laying hands on the shoulders* of two small figures.

Technical Points.—More of the minute folds of the white dress left than in any other of the repainted draperies. It is curious that minute division has always in drapery, more or less, been understood as an expression of spiritual life, from the delicate folds of Athena's peplus down to the rippled edges of modern priests' white robes; Titian's breadth of fold, on the other hand, meaning for the most part bodily power. The relation of the two modes of composition was lost by Michael Angelo, who thought to express spirit by making flesh colossal.

For the rest, the figure is not of any interest, Memmi's own mind being intellectual rather than mystic.

116. VII. POLEMIC THEOLOGY.†

"Who goes forth, conquering and to conquer?"

"For we war, not with flesh and blood," etc.

In red, as sign of power, but not in armor, because she is herself invulnerable. A close red cap, with cross for crest, instead of helmet. Bow in left hand; long arrow in right.

She partly means Aggressive Logic: compare the set of her shoulders and arms with Logic's.

* No, reaching out to them.—(G. C.)

† Blunderingly called 'Charity' in the guide-books.

She is placed the last of the Heavenly sciences, not as their culminating power, but as the last which can be rightly learned. You must know all the others, before you go out to battle. Whereas the general principle of modern Christendom is to go out to battle without knowing *any one* of the others! one of the reasons for this error, the prince of errors, being the vulgar notion that truth may be ascertained by debate! Truth is never learned, in any department of industry, by arguing, but by working, and observing. And when you have got good hold of one truth, for certain, two others will grow out of it, in a beautifully dicotyledonous fashion, (which, as before noticed, is the meaning of the branch in Logic's right hand). Then, when you have got so much true knowledge as is worth fighting for, you are bound to *fight*,*—or to die for it; but not to debate about it, any more.

There is, however, one further reason for Polemic Theology being put beside Mystic. It is only in some approach to mystic science that any man becomes aware of what St. Paul means by "spiritual wickedness in heavenly † places"; or, in any true sense, knows the enemies of God and of man.

117. Beneath, St. Augustine. Showing you the proper method of controversy;—perfectly firm; perfectly gentle.

You are to distinguish, of course, controversy from rebuke. The assertion of truth is to be always gentle: the chastisement of willful falsehood may be—very much the contrary indeed. Christ's sermon on the Mount is full of polemic theology, yet perfectly gentle:—"Ye have heard that it hath been said—but *I* say unto you";—"And if ye salute your brethren only, what do ye more than others?" and the like. But His "Ye fools and blind, for whether is greater," is not merely the exposure of error, but rebuke of the avarice which made that error possible.

* I will not encumber this letter with a defense of Holy Wars, whether defensive as that for the Scottish Covenant, or aggressive as the Mahometans under the four great Caliphs: the sentence is, I believe, hitherto the only one in which my opinion about them has been stated.

† With cowardly intentional fallacy, translated 'high' in the English Bible.

Under the throne of St. Thomas; and next to Arithmetic, of the earthly sciences.

Medallion, a soldier, but not interesting.

Technical Points.—Very genuine and beautiful throughout. Note the use of St. Augustine's red bands, to connect him with the full red of the upper figure; and compare the niche formed by the dress of Canon Law, above the Pope, for different artistic methods of attaining the same object,—unity of composition.

But lunch time is near, my friends, and you have that shopping to do, you know.

THE SIXTH MORNING.

THE SHEPHERD'S TOWER.

118. I AM obliged to interrupt my account of the Spanish chapel by the following notes on the sculptures of Giotto's Campanile: first because I find that inaccurate accounts of those sculptures are in course of publication; and chiefly because I cannot finish my work in the Spanish chapel until one of my good Oxford helpers, Mr. Caird, has completed some investigations he has undertaken for me upon the history connected with it. I had written my own analysis of the fourth side, believing that in every scene of it the figure of St. Dominic was repeated. Mr. Caird first suggested, and has shown me already good grounds for his belief,* that the preaching monks represented are in each scene intended for a different person. I am informed also of several careless mistakes which have got into my description of the fresco of the Sciences;† and finally, another of my young helpers, Mr. Charles F. Murray,—one, however, whose help is given much in the form of antagonism,—informs me of various critical discoveries lately made, both by himself, and by industrious Germans, of points respecting the authenticity of this and that, which will require notice from me: more especially he tells me of certification that the picture in the Uffizi, of which I accepted the ordinary attribution to Giotto, is by Lorenzo Monaco,—which indeed may well be,

* He wrote thus to me on 11th November last: "The three preachers are certainly different. The first is Dominic; the second, Peter Martyr, whom I have identified from his martyrdom on the other wall; and the third, Aquinas."

† Corrected in the second edition.

without in the least diminishing the use to you of what I have written of its predella, and without in the least, if you think rightly of the matter, diminishing your confidence in what I tell you of Giotto generally. There is one kind of knowledge of pictures which is the artist's, and another which is the antiquary's and the picture-dealer's; the latter especially acute, and founded on very secure and wide knowledge of canvas, pigment, and tricks of touch, without, necessarily, involving any knowledge whatever of the qualities of art itself. There are few practiced dealers in the great cities of Europe whose opinion would not be more trustworthy than mine, (if you could *get it*, mind you,) on points of actual authenticity. But they could only tell you whether the picture was by such and such a master, and not at all what either the master or his work was good for. Thus, I have, before now, taken drawings by Varley and by Cousins for early studies by Turner, and have been convinced by the dealers that they knew better than I, as far as regarded the authenticity of those drawings; but the dealers don't know Turner, or the worth of him, so well as I, for all that. So also, you may find me again and again mistaken among the much more confused work of the early Giottesque schools, as to the authenticity of this work or the other; but you will find (and I say it with far more sorrow than pride) that I am simply the only person who can at present tell you the real worth of *any*; you will find that whenever I tell you to look at a picture, it is worth your pains; and whenever I tell you the character of a painter, that it *is* his character, discerned by me faithfully in spite of all confusion of work falsely attributed to him in which similar character may exist. Thus, when I mistook Cousins for Turner, I was looking at a piece of subtlety in the sky of which the dealer had no consciousness whatever, which was essentially Turneresque, but which another man might sometimes equal; whereas the dealer might be only looking at the quality of Whatman's paper, which Cousins used and Turner did not.

119. Not, in the meanwhile, to leave you quite guideless

as to the main subject of the fourth fresco in the Spanish chapel,—the Pilgrim's Progress of Florence,—here is a brief map of it.

On the right, in lowest angle, St. Dominic preaches to the group of Infidels; in the next group towards the left, he (or some one very like him) preaches to the Heretics: the Heretics proving obstinate, he sets his dogs at them, as at the fatalest of wolves, who being driven away, the rescued lambs are gathered at the feet of the Pope. I have copied the head of the very pious, but slightly weak-minded, little lamb in the center, to compare with my rough Cumberland ones, who have had no such grave experiences. The whole group, with the Pope, above, (the niche of the Duomo joining with and enriching the decorative power of his miter,) is a quite delicious piece of design.

The Church being thus pacified, is seen in worldly honor under the powers of the Spiritual and Temporal Rulers. The Pope, with Cardinal and Bishop descending in order on his right; the Emperor, with King and baron descending in order on his left; the ecclesiastical body of the whole Church on the right side, and the laity,—chiefly its poets and artists,—on the left.

Then, the redeemed Church nevertheless giving itself up to the vanities and temptations of the world, its forgetful saints are seen feasting with their children dancing before them, (the Seven Mortal Sins, say some commentators). But the wise-hearted of them confess their sins to another ghost of St. Dominic; and confessed, becoming as little children, enter hand in hand the gate of the Eternal Paradise, crowned with flowers by the waiting angels, and admitted by St. Peter among the serenely joyful crowd of all the saints, above whom the white Madonna stands reverently before the throne. There is, so far as I know, throughout all the schools of Christian art, no other so perfect statement of the noble policy and religion of men.

120. I had intended to give the best account of it in my power; but, when at Florence, lost all time for writing that

I might copy the group of the Pope and Emperor for the schools of Oxford; and the work since done by Mr. Caird has informed me of so much, and given me, in some of its suggestions, so much to think of, that I believe it will be best and most just to print at once his account of the fresco as a supplement to these essays of mine, merely indicating any points on which I have objections to raise, and so leave matters till Fors lets me see Florence once more.

Perhaps she may, in kindness, forbid my ever seeing it more, the wreck of it being now too ghastly and heart-breaking to any human soul that remembers the days of old. Forty years ago, there was assuredly no spot of ground, out of Palestine, in all the round world, on which, if you knew, even but a little, the true course of that world's history, you saw with so much joyful reverence the dawn of morning, as at the foot of the Tower of Giotto. For there the traditions of faith and hope, of both the Gentile and Jewish races, met for their beautiful labor: the Baptistery of Florence is the last building raised on the earth by the descendants of the workmen taught by Dædalus; and the Tower of Giotto is the loveliest of those raised on earth under the inspiration of the men who lifted up the tabernacle in the wilderness. Of living Greek work there is none after the Florentine Baptistery; of living Christian work, none so perfect as the Tower of Giotto; and, under the gleam and shadow of their marbles, the morning light was haunted by the ghosts of the Father of Natural Science, Galileo; of Sacred Art, Angelico, and of the Master of Sacred Song. Which spot of ground the modern Florentine has made his principal hackney-coach stand and omnibus station. The hackney coaches, with their more or less farmyard-like litter of occasional hay, and smell of variously mixed horse-manure, are yet in more permissible harmony with the place than the ordinary populace of a fashionable promenade would be, with its cigars, spitting, and harlot-planned fineries: but the omnibus place of call being in front of the door of the tower, renders it impossible to stand for a moment near it, to look at the sculptures either

of the eastern or southern side; while the north side is inclosed with an iron railing, and usually encumbered with lumber as well: not a soul in Florence ever caring now for sight of any piece of its old artists' work: and the mass of strangers being on the whole intent on nothing but getting the omnibus to go by steam; and so seeing the cathedral in one swift circuit, by glimpses between the puffs of it.

121. The front of Notre Dame of Paris was similarly turned into a coach-office when I last saw it—1872.* Within fifty yards of me as I write, the Oratory of the Holy Ghost is used for a tobacco-store, and in fine, over all Europe, mere Caliban bestiality and Satyric ravage staggering, drunk and desperate, into every once enchanted cell where the prosperity of kingdoms ruled, and the miraculousness of beauty was shrined in peace.

Deluge of profanity, drowning dome and tower in Stygian pool of vilest thought,—nothing now left sacred, in the places where once—nothing was profane.

For *that* is indeed the teaching, if you could receive it, of the Tower of Giotto; as of all Christian art in its day. Next to declaration of the facts of the Gospel, its purpose, (often in actual work the eagerest,) was to show the *power* of the Gospel. History of Christ in due place; yes, history of all He did, and how He died: but then, and often, as I say, with more animated imagination, the showing of His risen presence in granting the harvests and guiding the labor of the year. All sun and rain, and length or decline of days received from His hand; all joy, and grief, and strength, or cessation of labor, indulged or endured, as in His sight and to His glory. And the familiar employments of the seasons, the homely toils of the peasant, the lowliest skills of the craftsman, are signed always on the stones of the Church, as the first and truest condition of sacrifice and offering.

122. Of these representations of human art under heavenly guidance, the series of bas-reliefs which stud the base of this

* See Fors Clavigera in that year.

tower of Giotto's must be held certainly the chief in Europe.* At first you may be surprised at the smallness of their scale in proportion to their masonry; but this smallness of scale enabled the master workmen of the tower to execute them with their own hands; and for the rest, in the very finest architecture, the decoration of most precious kind is usually thought of as a jewel, and set with space round it,—as the jewels of a crown, or the clasp of a girdle. It is in general not possible for a great workman to carve, himself, a greatly conspicuous series of ornament; nay, even his energy fails him in design, when the bas-relief extends itself into incrustation, or involves the treatment of great masses of stone. If his own does not, the spectator's will. It would be the work of a long summer's day to examine the over-loaded sculptures of the Certosa of Pavia; and yet in the tired last hour, you would be empty-hearted. Read but these inlaid jewels of Giotto's once with patient following; and your hour's study will give you strength for all your life. So far as you can, examine them of course on the spot; but to know them thoroughly you must have their photographs: the subdued color of the old marble fortunately keeps the lights subdued, so that the photograph may be made more tender in the shadows than is usual in its renderings of sculpture, and there are few pieces of art which may now be so well known as these, in quiet homes far away.

123. We begin on the western side. There are seven sculptures on the western, southern, and northern sides; six on the eastern; counting the Lamb over the entrance door of the tower, which divides the complete series into two groups of eighteen and eight. Itself, between them, being the introduction to the following eight, you must count it as the first of the terminal group: you then have the whole twenty-seven sculptures divided into eighteen and nine.

* For account of the series on the main archivolt of St. Mark's, see my sketch of the schools of Venetian sculpture in third number of 'St. Mark's Rest.'

Thus lettering the groups on each side for West, South, East, and North, we have:

$$\begin{array}{cccccccc} \text{W.} & & \text{S.} & & \text{E.} & & \text{N.} & \\ 7 & + & 7 & + & 6 & + & 7 & = 27; \text{ or} \\ \text{W.} & & \text{S.} & & \text{E.} & & & \\ 7 & + & 7 & + & 4 & & & = 18; \text{ and,} \\ & & & & \text{E.} & & \text{N.} & \\ & & & & 2 & + & 7 & = 9. \end{array}$$

There is a very special reason for this division by nines; but, for convenience' sake, I shall number the whole from 1 to 27, straightforwardly. And if you will have patience with me, I should like to go round the tower once and again; first observing the general meaning and connection of the subjects, and then going back to examine the technical points in each, and such minor specialities as it may be well, at the first time, to pass over.

124. (1.) The series begins, then, on the west side, with the Creation of Man. It is not the beginning of the story of Genesis; but the simple assertion that God made us, and breathed, and still breathes into our nostrils the breath of life.

This, Giotto tells you to believe as the beginning of all knowledge and all power.* This he tells you to believe, as a thing which he himself knows.

He will tell you nothing but what he *does* know.

(2.) Therefore, though Giovanni Pisano and his fellow-sculptors had given, literally, the taking of the rib out of Adam's side, Giotto merely gives the mythic expression of the truth he knows,—“they two shall be one flesh.”

(3.) And though all the theologians and poets of his time would have expected, if not demanded, that his next assertion, after that of the Creation of Man, should be of the Fall of Man, he asserts nothing of the kind. He knows nothing of what man was. What he is, he knows best of living men

* So also the Master-builder of the Ducal Palace of Venice. See Fors Clavigera for June of this year (1877).

at that hour, and proceeds to say. The next sculpture is of Eve spinning and Adam hewing the ground into clods. Not *digging*: you cannot, usually, dig but in ground already dug. The native earth you must hew.

They are not clothed in skins. What would have been the use of Eve's spinning if she could not weave? They wear, each, one simple piece of drapery, Adam's knotted behind him, Eve's fastened round her neck with a rude brooch.

Above them are an oak and an apple-tree. Into the apple-tree a little bear is trying to climb.

The meaning of which entire myth is, as I read it, that men and women must both eat their bread with toil. That the first duty of man is to feed his family, and the first duty of the woman to clothe it. That the trees of the field are given us for strength and for delight, and that the wild beasts of the field must have their share with us.*

125. (4.) The fourth sculpture, forming the center-piece of the series on the west side, is nomad pastoral life.

Jabal, the father of such as dwell in tents, and of such as have cattle, lifts the curtain of his tent to look out upon his flock. His dog watches it.

(5.) Jubal, the father of all such as handle the harp and organ.

That is to say, stringed and wind instruments;—the lyre and reed. The first arts (with the Jew and Greek) of the shepherd David, and shepherd Apollo.

Giotto has given him the long level trumpet, afterwards adopted so grandly in the sculptures of La Robbia and Donatello. It is, I think, intended to be of wood, as now the long Swiss horn, and a long and shorter tube are bound together.

(6.) Tubal-Cain, the instructor of every artificer in brass and iron.

* The oak and apple boughs are placed, with the same meaning, by Sandro Botticelli, in the lap of Zipporah. The figure of the bear is again represented by Jacopo della Quercia, on the north door of the Cathedral of Florence. I am not sure of its complete meaning.

Giotto represents him as sitting, *fully robed*, turning a wedge of bronze on the anvil with extreme watchfulness.

These last three sculptures, observe, represent the life of the race of Cain; of those who are wanderers, and have no home. *Nomad* pastoral life; *Nomad* artistic life, Wandering Willie; yonder organ man, whom you want to send the policeman after, and the gypsy who is mending the old school-mistress's kettle on the grass, which the squire has wanted so long to take into his park from the roadside.

(7.) Then the last sculpture of the seven begins the story of the race of Seth, and of home life. The father of it lying drunk under his trellised vine; such the general image of civilized society, in the abstract, thinks Giotto.

With several other meanings, universally known to the Catholic world of that day,—too many to be spoken of here.

126. The second side of the tower represents, after this introduction, the sciences and arts of civilized or home life.

(8.) Astronomy. In nomad life you may serve yourself of the guidance of the stars; but to know the laws of *their* nomadic life, your own must be fixed.

The astronomer, with his sextant revolving on a fixed pivot, looks up to the vault of the heavens and beholds their zodiac; prescient of what else with optic glass the Tuscan artist viewed, at evening, from the top of Fésolé.

Above the dome of heaven, as yet unseen, are the Lord of the worlds and His angels. To-day, the Dawn and the Daystar: to-morrow, the Daystar arising in the heart.

(9.) Defensive architecture. The building of the watch-tower. The beginning of security in possession.

(10.) Pottery. The making of pot, cup, and platter. The first civilized furniture; the means of heating liquid, and serving drink and meat with decency and economy.

(11.) Riding. The subduing of animals to domestic service.

(12.) Weaving. The making of clothes with swiftness, and in precision of structure, by help of the loom.

(13.) Law, revealed as directly from heaven.

(14.) Dædalus (not Icarus, but the father trying the wings). The conquest of the element of air.

127. As the seventh subject of the first group introduced the arts of home after those of the savage wanderer, this seventh of the second group introduces the arts of the missionary, or civilized and gift-bringing wanderer.

(15.) The conquest of the Sea. The helmsman, and two rowers, rowing as Venetians, face to bow.

(16.) The Conquest of the Earth. Hercules victor over Antæus. Beneficent strength of civilization crushing the savageness of inhumanity.

(17.) Agriculture. The oxen and plow.

(18.) Trade. The cart and horses.

(19.) And now the sculpture over the door of the tower, The Lamb of God, expresses the Law of Sacrifice, and door of ascent to heaven. And then follow the fraternal arts of the Christian world.

(20.) Geometry. Again the angle sculpture, introductory to the following series. We shall see presently why this science must be the foundation of the rest.

(21.) Sculpture.

(22.) Painting.

(23.) Grammar.

(24.) Arithmetic. The laws of number, weight, and measures of capacity.

(25.) Music. The laws of number, weight (or force), and measure, applied to sound.

(26.) Logic. The laws of number and measure applied to thought.

(27.) The Invention of Harmony.

128. You see now—by taking first the great division of pre-Christian and Christian arts, marked by the door of the Tower; and then the divisions into four successive historical periods, marked by its angles—that you have a perfect plan of human civilization. The first side is of the nomad life, learning how to assert its supremacy over other wandering creatures, herbs, and beasts. Then the second side is the

fixed home life, developing race and country; then the third side, the human intercourse between stranger races; then the fourth side, the harmonious arts of all who are gathered into the fold of Christ.

129. Now let us return to the first angle, and examine piece by piece with care.

(1.) *Creation of Man.*

Scarcely disengaged from the clods of the earth, he opens his eyes to the face of Christ. Like all the rest of the Sculptures, it is less the representation of a past fact than of a constant one. It is the continual state of man, 'of the earth,' yet seeing God.

Christ holds the book of His Law—the 'Law of life'—in His left hand.

The trees of the garden above are,—central above Christ, palm (immortal life); above Adam, oak (human life). Pear, and fig, and a large-leaved ground fruit (what?) complete the myth of the Food of life.

As decorative sculpture, these trees are especially to be noticed, with those in the two next subjects, and the Noah's vine, as differing in treatment from Giotto's foliage, of which perfect examples are seen in 16 and 17. Giotto's branches are set in close sheaf-like clusters; and every mass disposed with extreme formality of radiation. The leaves of these first, on the contrary, are arranged with careful concealment of their ornamental system, so as to look inartificial. This is done so studiously as to become, by excess, a little unnatural!—nature herself is more decorative and formal in grouping. But the occult design is very noble, and every leaf modulated with loving, dignified, exactly right and sufficient finish; not done to show skill, nor with mean forgetfulness of main subject, but in tender completion and harmony with it.

Look at the subdivisions of the palm-leaves with your magnifying glass. The others are less finished in this than in the next subject. Man himself incomplete, the leaves that are created with him, for his life, must not be so.

(Are not his fingers yet short ; growing ?)

130. (2.) *Creation of Woman.*

Far, in its essential qualities, the transcendent sculpture of this subject; Ghiberti's is only a dainty elaboration and beautification of it, losing its solemnity and simplicity in a flutter of feminine grace. The older sculptor thinks of the Uses of Womanhood, and of its dangers and sins, before he thinks of its beauty; but, were the arm not lost, the quiet naturalness of this head and breast of Eve, and the bending grace of the submissive rendering of soul and body to perpetual guidance by the hand of Christ—(*grasping* the arm, note, for full support)—would be felt to be far beyond Ghiberti's in beauty, as in mythic truth.

The line of her body joins with that of the serpent-ivy round the tree trunk above her: a double myth—of her fall, and her support afterwards by her husband's strength. "Thy desire shall be to thy husband." The fruit of the tree—double-set filbert,—telling nevertheless the happy equality.

The leaves in this piece are finished with consummate poetical care and precision. Above Adam, laurel (a virtuous woman is a crown to her husband); the filbert for the two together; the fig, for fruitful household joy (under thy vine and fig-tree*—but vine properly the masculine joy); and the fruit taken by Christ for type of all naturally growing food, in His own hunger.

Examine with lens the ribbing of these leaves, and the insertion on their stem of the three laurel leaves on extreme right: and observe that in all cases the sculptor works the molding *with* his own part of the design; look how he breaks variously deeper into it, beginning from the foot of Christ, and going up to the left into full depth above the shoulder.

131. (3.) *Original labor.* Much poorer and intentionally so. For the myth of the creation of humanity, the sculptor uses his best strength, and shows supremely the grace of womanhood; but in representing the first peasant state of life, makes the grace of woman by no means her conspicuous

* Compare Fors Clavigera, February, 1877.

quality. She even walks awkwardly; some feebleness in foreshortening the foot also embarrassing the sculptor. He knows its form perfectly—but its perspective, not quite yet.

The trees stiff and stunted—they also needing culture. Their fruit dropping at present only into beasts' mouths.

132. (4.) *Jabal*.

If you have looked long enough, and carefully enough, at the three previous sculptures, you cannot but feel that the hand here is utterly changed. The drapery sweeps in broader, softer, but less true folds; the handling is far more delicate; exquisitely sensitive to gradation over broad surfaces—scarcely using an incision of any depth but in outline; studiously reserved in appliance of shadow, as a thing precious and local—look at it above the puppy's head, and under the tent. This is assuredly painter's work, not mere sculptor's. I have no doubt whatever it is by the own hand of the shepherd-boy of Fésolé. Cimabue had found him drawing, (more probably *scratching* with Etrurian point,) one of his sheep upon a stone. These, on the central foundation-stone of his tower he engraves, looking back on the fields of life: the time soon near for him to draw the curtains of his tent.

I know no dog like this in method of drawing, and in skill of giving the living form without one touch of chisel for hair, or incision for eye, except the dog barking at Poverty in the great fresco of Assisi.

Take the lens and look at every piece of the work from corner to corner—note especially as a thing which would only have been enjoyed by a painter, and which all great painters do intensely enjoy—the *fringe* of the tent,* and precise insertion of its point in the angle of the hexagon, prepared for by the archaic masonry indicated in the oblique joint above;†

* "I think Jabal's tent is made of leather; the relaxed intervals between the tent-pegs show a curved ragged edge like leather near the ground" (Mr. Caird). The edge of the opening is still more characteristic, I think.

† Prints of these photographs which do not show the masonry all round the hexagon are quite valueless for study.

architect and painter thinking at once, and *doing* as they thought.

I gave a lecture to the Eton boys a year or two ago, on little more than the shepherd's dog, which is yet more wonderful in magnified scale of photograph. The lecture is partly published—somewhere, but I can't refer to it.

133. (5.) *Jubal*.

Still Giotto's, though a little less delighted in; but with exquisite introduction of the Gothic of his own tower. See the light surface sculpture of a mosaic design in the horizontal molding.

Note also the painter's freehand working of the complex moldings of the table—also resolvedly oblong, not square; see central flower.

(6.) *Tubal-Cain*.

Still Giotto's, and entirely exquisite; finished with no less care than the shepherd, to mark the vitality of this art to humanity; the spade and hoe—its heraldic bearing—hung on the hinged door.* For subtlety of execution, note the texture of wooden block under anvil, and of its iron hoop.

The workman's face is the best sermon on the dignity of labor yet spoken by thoughtful man. Liberal Parliaments and fraternal Reformers have nothing essential to say more.

(7.) *Noah*.

Andrea Pisano's, more or less imitative of Giotto's work.

134. (8.) *Astronomy*.

We have a new hand here altogether. The hair and drapery bad; the face expressive, but blunt in cutting; the small upper heads, necessarily little more than blocked out, on the small scale; but not suggestive of grace in completion: the minor detail worked with great mechanical precision, but

* Pointed out to me by Mr. Caird, who adds farther, "I saw a forge identical with this one at Pelago the other day,—the anvil resting on a tree-stump: the same fire, bellows, and implements; the door in two parts, the upper part like a shutter, and used for the exposition of finished work as a sign of the craft; and I saw upon it the same finished work of the same shape as in the bas-relief—a spade and a hoe.

little feeling; the lion's head, with leaves in its ears, is quite ugly; and by comparing the work of the small cusped arch at the bottom with Giotto's soft handling of the moldings of his, in 5, you may forever know common mason's work from fine Gothic. The zodiacal signs are quite hard and common in the method of bas-relief, but quaint enough in design: Capricorn, Aquarius, and Pisces, on the broad heavenly belt; Taurus upside down, Gemini, and Cancer, on the small globe.

I think the whole a restoration of the original panel, or else an inferior workman's rendering of Giotto's design, which the next piece is, with less question.

(9.) *Building.*

The larger figure, I am disposed finally to think, represents civic power, as in Lorenzetti's fresco at Siena. The extreme rudeness of the minor figures may be guarantee of their originality; it is the smoothness of mass and hard edge work that make me suspect the 8th for a restoration.

(10.) *Pottery.*

Very grand; with much painter's feeling, and fine moldings again. The tiled roof projecting in the shadow above, protects the first Ceramicus-home. I think the women are meant to be carrying some kind of wicker or reed-bound water-vessel. The Potter's servant explains to them the extreme advantages of the new invention. I can't make any conjecture about the author of this piece.

(11.) *Riding.*

Again Andrea Pisano's, it seems to me. Compare the tossing up of the dress behind the shoulders, in 3 and 2. The head is grand, having nearly an Athenian profile; the loss of the horse's fore-leg prevents me from rightly judging of the entire action. I must leave riders to say.

135. (12.) *Weaving.*

Andrea's again, and of extreme loveliness; the stooping face of the woman at the loom is more like a Leonardo drawing than sculpture. The action of throwing the large shuttle, and all the structure of the loom and its threads, distinguish-

ing rude or smooth surface, are quite wonderful. The figure on the right shows the use and grace of finely woven tissue, under and upper—that over the bosom so delicate that the line of separation from the flesh of the neck is unseen.

If you hide with your hand the carved masonry at the bottom, the composition separates itself into two pieces, one disagreeably rectangular. The still more severely rectangular masonry throws out by contrast all that is curved and rounded in the loom, and unites the whole composition: that is its æsthetic function; its historical one is to show that weaving is queen's work, not peasant's; for this is palace masonry.

(13.) *The Giving of Law.* More strictly, of *the Book of God's Law*: the only one which *can* ultimately be obeyed.*

The authorship of this is very embarrassing to me. The face of the central figure is most noble, and all the work good, but not delicate; it is like original work of the master of whose design No. 8 might be a restoration.

(14.) *Dædalus.*

Andrea Pisano again; the head superb, founded on Greek models, feathers of wings wrought with extreme care; but with no precision of arrangement or feeling. How far intentional in awkwardness, I cannot say; but note the good mechanism of the whole plan, with strong standing-board for the feet.

* Mr. Caird convinced me of the real meaning of this sculpture. I had taken it for the giving of a book, writing further of it as follows:—

All books, rightly so called, are Books of Law, and all Scripture is given by inspiration of God. (What *we* now mostly call a book, the infinite reduplication and vibratory echo of a lie, is not given, but belched up out of volcanic clay by the inspiration of the devil.) On the Book-giver's right hand the students in cell, restrained by the lifted right hand:

“Silent, you,—till you know;” then, perhaps, you also.

On the left, the men of the world, kneeling, receive the gift.

Recommendable seal, this, for Mr. Mudie!

Mr. Caird says: “The book is written law, which is given by Justice to the inferiors, that they may know the laws regulating their relations to their superiors—who are also under the hand of law. The vassal is protected by the accessibility of formularized law—the superior is restrained by the right hand of power.”

136. (15.) *Navigation.*

An intensely puzzling one; coarsè (perhaps unfinished) in work, and done by a man who could not row; the plaited bands used for rowlocks being pulled the wrong way. Right, had the rowers been rowing English-wise: but the water at the boat's head shows its motion forwards, the way the oarsmen look. I cannot make out the action of the figure at the stern: it ought to be steering with the stern oar.

The water seems quite unfinished. Meant, I suppose, for surface and section of sea, with slimy rock at the bottom; but all stupid and inefficient.

(16.) *Hercules and Antæus.*

The earth power, half hidden by the earth, its hair and hand becoming roots, the strength of its life passing through the ground into the oak tree. With Cereyon, but first named, (Plato, *Laws*, Book VII., 796,) Antæus is the master of contest without use;—*φιλονεικίας ἀχρήστου*—and is generally the power of pure selfishness and its various inflation to insolence and degradation to cowardice;—finding its strength only in fall back to its Earth,—he is the master, in a word, of all such kind of persons as have been writing lately about the “interests of England.” He is, therefore, the power invoked by Dante to place Virgil and him in the lowest circle of Hell;—“Alcides whilom felt,—that grapple, straitened sore,” etc. The Antæus in the sculpture is very grand; but the authorship puzzles me, as of the next piece, by the same hand. I believe both Giotto's design.

137. (17.) *Plowing.*

The sword in its Christian form. Magnificent: the grandest expression of the power of man over the earth and its strongest creatures that I remember in early sculpture,—(or for that matter, in late). It is the subduing of the bull which the sculptor thinks most of; the plow, though large, is of wood, and the handle slight. But the pawing and bellowing laborer he has bound to it:—here is the victory.

(18.) *The Chariot.*

The horse also subdued to draught—Achilles' chariot in

its first, and to be its last, simplicity. The face has probably been grand—the figure is so still. Andrea's, I think, by the flying drapery.

(19.) *The Lamb, with the symbol of Resurrection.*

Over the door: 'I am the door;—by me, if any man enter in,' etc. Put to the right of the tower, you see fearlessly, for the convenience of staircase ascent; all external symmetry being subject with the great builders to interior use; and then, out of the rightly ordained infraction of formal law, comes perfect beauty; and when, as here, the Spirit of Heaven is working with the designer, his thoughts are suggested in truer order, by the concession to use. After this sculpture come the Christian arts,—those which necessarily imply the conviction of immortality. Astronomy without Christianity only reaches as far as—'Thou hast made him a little lower than the angels—and put all *things* under his feet';—Christianity says beyond this,—'Know ye not that we shall judge angels (as also the lower creatures shall judge us!)*' The series of sculptures now beginning, therefore, show the arts which *can* only be accomplished through belief in Christ.

138. (20.) *Geometry.*

Not 'mathematics': *they* have been implied long ago in astronomy and architecture: but the due Measuring of the Earth and all that is on it. Actually done only by Christian faith—first inspiration of the great Earth-measurers. Your Prince Henry of Spain, your Columbus, your Captain Cook, (whose tomb, with the bright artistic invention and religious tenderness which are so peculiarly the gifts of the nineteenth century, we have just provided a fence for, of old caannon open-mouthed, straight up towards Heaven—your modern method of symbolizing the only appeal to Heaven of which the nineteenth century has left itself capable—'The voice

* In the deep sense of this truth, which underlies all the bright fantasy and humor of Mr. Courthope's "Paradise of Birds," that rhyme of the risen spirit of Aristophanes may well be read under the tower of Giotto, beside his watch-dog of the fold.

of thy Brother's blood crieth to me'—your outworn cannon, now silently agape, but sonorous in the ears of angels with that appeal)—first inspiration, I say, of these; constant inspiration of all who set true landmarks and hold to them, knowing their measure; the devil interfering, I observe, lately in his own way, with the Geometry of Yorkshire, where the landed proprietors,* when the neglected walls by the roadside tumble down, benevolently repair the same, with better stonework, *outside* always of the fallen heaps;—which, the wall being thus built *on* what was the public road, absorb themselves, with help of moss and time, into the heavy swells of the rocky field—and behold, gain of a couple of feet—along so much of the road as needs repairing operations.

This, then, is the first of the Christian sciences: division of land rightly, and the general law of measuring between wisely-held compass points. The type of mensuration, circle in square, on his desk, I use for my first exercise in the laws of Fésolé.

139. (21.) *Sculpture.*

The first piece of the closing series on the north side of the Campanile, of which some general points must be first noted, before any special examination.

The two initial ones, Sculpture and Painting, are by tradition the only ones attributed to Giotto's own hand. The fifth, Song, is known, and recognizable in its magnificence, to be by Luca della Robbia. The remaining four are all of Luca's school,—later work therefore, all these five, than any we have been hitherto examining, entirely different in

* I mean no accusation against any class; probably the one-fielded statesman is more eager for his little gain of fifty yards of grass than the squire for his bite and sup out of the gypsy's part of the roadside. But it is notable enough to the passing traveler, to find himself shut into a narrow road between high stone dykes which he can neither see over nor climb over, (I always deliberately pitch them down myself, wherever I need a gap,) instead of on a broad road between low gray walls with all the moor beyond—and the power of leaping over when he chooses, in innocent trespass for herb, or view, or splinter of gray rock.

manner, and with late flower-work beneath them instead of our hitherto severe Gothic arches. And it becomes of course instantly a vital question—Did Giotto die leaving the series incomplete, only its subjects chosen, and are these two bas-reliefs of Sculpture and Painting among his last works? or was the series ever completed, and these later bas-reliefs substituted for the earlier ones, under Luca's influence, by way of conducting the whole to a grander close, and making their order more representative of Florentine art in its fullness of power?

140. I must repeat, once more, and with greater insistence respecting Sculpture than Painting, that I do not in the least set myself up for a critic of authenticity,—but only of absolute goodness. My readers may trust me to tell them what is well done or ill; but by whom, is quite a separate question, needing for any certainty, in this school of much-associated masters and pupils, extremest attention to minute particulars not at all bearing on my objects in teaching.

Of this closing group of sculptures, then, all I can tell you is that the fifth is a quite magnificent piece of work, and recognizably, to my extreme conviction, Luca della Robbia's; that the last, *Harmonia*, is also fine work; that those attributed to Giotto are fine in a different way,—and the other three in reality the poorest pieces in the series, though done with much more advanced sculptural dexterity.

But I am chiefly puzzled by the two attributed to Giotto, because they are much coarser than those which seem to me so plainly his on the west side, and slightly different in workmanship—with much that is common to both, however, in the casting of drapery and mode of introduction of details. The difference may be accounted for partly by haste or failing power, partly by the artist's less deep feeling of the importance of these merely symbolic figures, as compared with those of the *Fathers of the Arts*; but it is very notable and embarrassing notwithstanding, complicated as it is with extreme resemblance in other particulars.

141. You cannot compare the subjects on the tower itself;

but of my series of photographs take 6 and 21, and put them side by side.

I need not dwell on the conditions of resemblance, which are instantly visible; but the *difference* in the treatment of the heads is incomprehensible. That of the Tubal-Cain is exquisitely finished, and with a painter's touch; every lock of the hair laid with studied flow, as in the most beautiful drawing. In the 'Sculpture,' it is struck out with ordinary tricks of rapid sculptor trade, entirely unfinished, and with offensively frank use of the drill hole to give picturesque rustication to the beard.

142. Next, put 22 and 5 back to back. You see again the resemblance in the earnestness of both figures, in the unbroken arcs of their backs, in the breaking of the octagon molding by the pointed angles; and here, even also in the general conception of the heads. But again, in the one, of Painting, the hair is struck with more vulgar indenting and drilling, and the Gothic of the picture frame is less precise in touch and later in style. Observe, however,—and this may perhaps give us some definite hint for clearing the question,—a picture frame *would be* less precise in making, and later in style, properly, than cusped arches to be put under the feet of the inventor of all musical sound by breath of man. And if you will now compare finally the eager tilting of the workman's seat in 22 and 6, and the working of the wood in the painter's low table for his pots of color, and his three-legged stool, with that of Tubal-Cain's anvil block; and the way in which the lines of the forge and upper triptych are in each composition used to set off the rounding of the head, I believe you will have little hesitation in accepting my own view of the matter—namely, that the three pieces of the Fathers of the Arts were wrought with Giotto's extremest care for the most precious stones of his tower; that also, being a sculptor and painter, he did the other two, but with quite definite and willful resolve that they *should be*, as mere symbols of his own two trades, wholly inferior to the other subjects of the patriarchs; that he made the Sculpture

picturesque and bold as you see it is, and showed all a sculptor's tricks in the work of it; and a sculptor's Greek subject, Bacchus, for the model of it; that he wrought the Painting, as the higher art, with more care, still keeping it subordinate to the primal subjects, but showed, for a lesson to all the generations of painters for evermore,—this one lesson, like his circle of pure line, containing all others,—‘Your soul and body must be all in every touch.’

143. I can't resist the expression of a little piece of personal exultation, in noticing that he holds his pencil as I do myself: no writing master, and no effort (at one time very steady for many months), having ever cured me of that way of holding both pen and pencil between my fore and second finger; and the third and fourth resting the backs of them on my paper.

144. As I finally arrange these notes for press, I am further confirmed in my opinion by discovering little finishings in the two later pieces which I was not before aware of. I beg the masters of High Art, and sublime generalization, to take a good magnifying glass to the ‘Sculpture’ and look at the way Giotto has cut the compasses, the edges of the chisels, and the *keyhole of the lock* of the toolbox.

For the rest, nothing could be more probable, in the confused and perpetually false mass of Florentine tradition, than the preservation of the memory of Giotto's carving his own two trades, and the forgetfulness, or quite as likely ignorance, of the part he took with Andrea Pisano in the initial sculptures.

145. I now take up the series of subjects at the point where we broke off, to trace their chain of philosophy to its close.

To Geometry, which gives to every man his possession of house and land, succeed, 21, Sculpture, and 22, Painting, the adornments of permanent habitation. And then, the great arts of education in a Christian home. First—

(23.) *Grammar*, or more properly Literature altogether, of which we have already seen the ancient power in the Spanish Chapel series; then,

(24.) *Arithmetic.*

central here as also in the Spanish Chapel, for the same reasons; here, more impatiently asserting, with both hands, that two, on the right, you observe—and two on the left—do indeed and forever make Four. Keep your accounts, you, with your book of double entry, on that principle; and you will be safe in this world and the next, in your steward's office. But by no means so, if you ever admit the usurer's Gospel of Arithmetic, that two and two make Five.

You see by the rich hem of his robe that the asserter of this economical first principle is a man well to do in the world.

(25.) *Logic.*

The art of Demonstration. Vulgarest of the whole series; far too expressive of the mode in which argument is conducted by those who are not masters of its reins.

(26.) *Song.*

The essential power of music in animal life. Orpheus, the symbol of it all, the inventor properly of Music, the law of kindness, as Dædalus of Music, the Law of Construction. Hence the "Orphic life" is one of ideal mercy, (vegetarian,)—Plato, *Laws*, Book VI., 782,—and he is named first after Dædalus, and in balance to him as head of the school of harmonists, in Book III., 677, (Steph.) Look for the two singing birds clapping their wings in the tree above him: then the five mystic beasts,—closest to his feet the irredeemable boar; then lion and bear, tiger, unicorn, and fiery dragon closest to his head, the flames of its mouth mingling with his breath, as he sings. The audient eagle, alas! has lost the beak, and is only recognizable by his proud holding of himself; the duck, sleepily delighted after muddy dinner, close to his shoulder, is a true conquest. Hoopoe, or indefinite bird of crested race, behind; of the other three no clear certainty. The leafage throughout such as only Luca could do, and the whole consummate in skill and understanding.

(27.) *Harmony.*

Music of Song, in the full power of it, meaning perfect

education in all art of the Muses and of civilized life: the mystery of its concord is taken for the symbol of that of a perfect state; one day, doubtless, of the perfect world. So prophesies the last cornerstone of the Shepherd's Tower.

[The following text is extremely faint and largely illegible. It appears to be a long, multi-paragraph passage, possibly a translation or a commentary, but the words are too light to transcribe accurately. It seems to contain several lines of text, possibly including a quote or a detailed description.]

ST. MARK'S REST

THE HISTORY OF VENICE

WRITTEN FOR THE HELP OF THE FEW TRAVELERS
WHO STILL CARE FOR HER MONUMENTS.

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PREFACE.

GREAT nations write their autobiographies in three manuscripts;—the book of their deeds, the book of their words, and the book of their art. Not one of these books can be understood unless we read the two others; but of the three, the only quite trustworthy one is the last. The acts of a nation may be triumphant by its good fortune; and its words mighty by the genius of a few of its children: but its art, only by the general gifts and common sympathies of the race.

Again, the policy of a nation may be compelled, and, therefore, not indicative of its true character. Its words may be false, while yet the race remain unconscious of their falsehood; and no historian can assuredly detect the hypocrisy. But art is always instinctive; and the honesty or pretense of it is therefore open to the day. The Delphic oracle may or may not have been spoken by an honest priestess,—we cannot tell by the words of it; a liar may rationally believe them a lie, such as he would himself have spoken; and a true man, with equal reason, may believe them spoken in truth. But there is no question possible in art: at a glance, (when we have learned to read,) we know the religion of Angelico to be sincere, and of Titian, assumed.

The evidence, therefore, of the third book is the most vital to our knowledge of any nation's life; and the history of Venice is chiefly written in such manuscript. It once lay open on the waves, miraculous, like St. Cuthbert's book,—a golden legend on countless leaves: now, like Baruch's roll, it is being cut with the penknife, leaf by leaf, and consumed in the fire of the most brutish of the fiends. What fragments of it may yet be saved in blackened scroll, like those withered Cottonian relics in our National library, of which

so much has been redeemed by love and skill, this book will help you, partly, to read. Partly,—for I know only myself in part; but what I tell you, so far as it reaches, will be truer than you have heard hitherto, because founded on this absolutely faithful witness, despised by other historians, if not wholly unintelligible to them.

I am obliged to write shortly, being too old now to spare time for anything more than needful work; and I write at speed, careless of afterwards remediable mistakes, of which adverse readers may gather as many as they choose: that to which such readers are adverse will be found truth that can abide any quantity of adversity.

As I can get my chapters done, they shall be published in this form, for such service as they can presently do. The entire book will consist of not more than twelve such parts, with two of appendices, forming two volumes: if I can get what I have to say into six parts, with one appendix, all the better.

Two separate little guides, one to the Academy, the other to San Giorgio de' Schiavoni,* will, I hope, be ready with the opening numbers of this book, which must depend somewhat on their collateral illustration; and what I find likely to be of service to the traveler in my old 'Stones of Venice' is in course of re-publication, with further illustration of the complete works of Tintoret. But this cannot be ready till the autumn; and what I have said of the mightiest of Venetian masters, in my lecture on his relation to Michael Angelo, will be enough at present to enable the student to complete the range of his knowledge to the close of the story of 'St. Mark's Rest.'

* See now Chapters X.-XI. of this book.

ST. MARK'S REST.

CHAPTER I.

THE BURDEN OF TYRE.

1. Go first into the Piazzetta, and stand anywhere in the shade, where you can well see its two granite pillars.

Your Murray tells you that they are 'famous,' and that the one is "surmounted by the bronze lion of St. Mark, the other by the statue of St. Theodore, the Protector of the Republic."

It does not, however, tell you why, or for what the pillars are 'famous.' Nor, in reply to a question which might conceivably occur to the curious, why St. Theodore should protect the Republic by standing on a crocodile; nor whether the "bronze lion of St. Mark" was cast by Sir Edwin Landseer, —or some more ancient and ignorant person;—nor what these rugged corners of limestone rock, at the bases of the granite, were perhaps once in the shape of. Have you any idea why, for the sake of any such things, these pillars were once, or should yet be, more renowned than the Monument, or the column of the Place Vendôme, both of which are much bigger?

2. Well, they are famous, first, in memorial of something which is better worth remembering than the fire of London, or the achievements of the great Napoleon. And they are famous, or used to be, among artists, because they are beautiful columns; nay, as far as we old artists know, the most beautiful columns at present extant and erect in the conveniently visitable world.

Each of these causes of their fame I will try in some dim degree to set before you.

I said they were set there in memory of *things*,—not of the man who did the things. They are to Venice, in fact, what the Nelson column would be to London, if, instead of a statue of Nelson and a coil of rope, on the top of it, we had put one of the four Evangelists, and a saint, for the praise of the Gospel and of Holiness:—trusting the memory of Nelson to our own souls.

However, the memory of the Nelson of Venice, being now seven hundred years old, has more or less faded from the heart of Venice herself, and seldom finds its way into the heart of a stranger. Somewhat concerning him, though a stranger, you may care to hear, but you must hear it in quiet; so let your boatman take you across to San Giorgio Maggiore; there you can moor your gondola under the steps in the shade, and read in peace, looking up at the pillars when you like.

3. In the year 1117, when the Doge Ordeláfo Falier had been killed under the walls of Zara, Venice chose, for his successor, Domenico Michiel, Michael of the Lord, 'Cattolico uomo e audace,'* a catholic and brave man, the servant of God and of St. Michael.

Another of Mr. Murray's publications for your general assistance, ('Sketches from Venetian History') informs you that, at this time, the ambassadors of the king of Jerusalem (the second Baldwin) were "awakening the pious zeal, and stimulating the commercial appetite, of the Venetians."

This elegantly balanced sentence is meant to suggest to you that the Venetians had as little piety as we have ourselves, and were as fond of money;—that article being the only one which an Englishman could now think of, as an object of "commercial appetite."

* Marin Sanuto. *Vitæ Ducum Venetorum*, henceforward quoted as V., with references to the pages of Muratori's edition. [Edition 1 adds:—"See Appendix, Art. 1, which with following appendices will be given in a separate number as soon as there are enough to form one"—but these appendices have never been printed.]

The facts which take this aspect to the lively cockney, are, in reality, that Venice was sincerely pious, and intensely covetous. But not covetous merely of money. She was covetous, first, of fame; secondly, of kingdom; thirdly, of pillars of marble and granite, such as these that you see; lastly, and quite principally, of the relics of good people. Such an 'appetite,' glib-tongued cockney friend, is not wholly 'commercial.'

4. To the nation in this religiously covetous hunger, Baldwin appealed, a captive to the Saracen. The Pope sent letters to press his suit, and the Doge Michael called the State to council in the Church of St. Mark. There he, and the Primate of Venice, and her nobles, and such of the people as had due entrance with them, by way of beginning the business, celebrated the Mass of the Holy Spirit. Then the Primate read the Pope's letters aloud to the assembly; then the Doge made the assembly a speech. And there was no opposition party in that parliament to make opposition speeches; and there were no reports of the speech next morning in any *Times* or *Daily Telegraph*. And there were no plenipotentiaries sent to the East, and back again. But the vote passed for war.

The Doge left his son in charge of the State; and sailed for the Holy Land, with forty galleys and twenty-eight beaked ships of battle—"ships which were painted with divers colors," * far seen in pleasant splendor.

5. Some faded likeness of them, twenty years ago, might be seen in the painted sails of the fishing boats which lay crowded, in lowly luster, where the development of civilization now only brings black steam-tugs,† to bear the people of Venice to the bathing-machines of Lido, covering their Ducal

* 'The Acts of God, by the Franks.' Afterwards quoted as G. (Gesta Dei). [Edition 1 adds:—"Again, see Appendix, Art. 1"—still unpublished.]

† The sails may still be seen scattered farther east along the Riva; but the beauty of the scene, which gave some image of the past, was in their combination with the Ducal Palace,—not with the new French and English Restaurants.

Palace with soot, and consuming its sculptures with sulphurous acid.

The beaked ships of the Doge Michael had each a hundred oars;—each oar pulled by two men, not accommodated with sliding seats, but breathed well for their great boat-race between the shores of Greece and Italy;—whose names, alas, with the names of their trainers, are noteless in the journals of the barbarous time.

They beat their way across the waves, nevertheless,* to the place by the sea-beach in Palestine where Dorcas worked for the poor, and St. Peter lodged with his namesake tanner. There, showing first but a squadron of a few ships, they drew the Saracen fleet out to sea, and so set upon them.

And the Doge, in his true Duke's place, first in his beaked ship, led for the Saracen admiral's, struck her, and sunk her. And his host of falcons followed to the slaughter: and to the prey also,—for the battle was not without gratification of the commercial appetite. The Venetians took a number of ships containing precious silks, and “a quantity of drugs and pepper.”

After which battle, the Doge went up to Jerusalem, there to take further counsel concerning the use of his Venetian power; and, being received there with honor, kept his Christmas in the mountain of the Lord.

6. In the council of war that followed, debate became stern whether to undertake the siege of Tyre or Ascalon. The judgments of men being at pause, the matter was given to the judgment of God. They put the names of the two cities in an urn, on the altar of the Church of the Sepulchre. An orphan child was taken to draw the lots, who, putting his hand into the urn, drew out the name of TYRE.

Which name you may have heard before, and read perhaps words concerning her fall—careless always *when* the fall took place, or whose sword smote her.

She was still a glorious city, still queen of the treasures of

* Oars, of course, for calm, and adverse winds, only; bright sails full to the helpful breeze.

the sea; * chiefly renowned for her work in glass and in purple; set in command of a rich plain, "irrigated with plentiful and perfect waters, famous for its sugar-canes; 'fortissima,' she herself, upon her rock, double walled towards the sea, treble walled to the land; and, to all seeming, unconquerable but by famine."

7. For their help in this great siege, the Venetians made their conditions.

That in every city subject to the King of Jerusalem, the Venetians should have a street, a square, a bath, and a bakehouse;—that is to say, a place to live in, a place to meet in, and due command of water and bread, all free of tax; that they should use their own balances, weights, and measures; (not by any means false ones, you will please to observe); and that the King of Jerusalem should pay annually to the Doge of Venice, on the Feast of St. Peter and St. Paul, three hundred Saracen byzants.

8. Such, with due approval of the two Apostles of the Gentiles, being the claims of these Gentile mariners from the King of the Holy City, the same were accepted in these terms:—"In the name of the Holy and undivided Trinity of the Father, the Son, and the Holy Ghost, these are the treaties which Baldwin, second King of the Latins in Jerusalem, made with St. Mark and Dominicus Michaël";—and ratified by the signatures of—

GUARIMOND, Patriarch of Jerusalem;

EBREMAR, Archbishop of Cæsarea;

BERNARD, Archbishop of Nazareth;

ASQUIRIN, Bishop of Bethlehem;

GOLDUMUS, Abbot of St. Mary's, in the Vale of Jehoshaphat;

ACCHARD, Prior of the Temple of the Lord;

* "Passava tuttavia per la piu popolosa e commerciante di Siria."—Romanin, 'Storia Documentata di Venezia,' Venice, 1853, vol. ii., whence I take what else is said in the text; but see in the Gesto Dei, the older Marin Sanuto, lib. iii., pars. vi. cap. xii., and pars. xiv. cap. ii.

GERARD, Prior of the Holy Sepulchre ;
 ARNARD, Prior of Mount Syon ; and
 HUGO DE PAGANO, Master of the Soldiers of the Temple.

With others many, whose names are in the chronicle
 of Andrea Dandolo.

And thereupon the French crusaders by land, and the Venetians by sea, drew line of siege round Tyre.

9. You will not expect me here, at St. George's steps, to give account of the various mischief done on each other with the dart, the stone, and the fire, by the Christian and Saracen, day by day. Both were at last wearied, when a report came of help to the Tyrians by an army from Damascus and a fleet from Egypt. Upon which news, discord arose in the invading camp ; and rumor went abroad that the Venetians would desert their allies, and save themselves in their fleet. These reports coming to the ears of the Doge, he took (according to tradition) the sails from his ships' masts, and the rudders from their sterns,* and brought sails, rudders, and tackle ashore, and into the French camp, adding to these, for his pledge, "grave words."

The French knights, in shame of their miscreance, bade him refit his ships. The Count of Tripoli and William of Bari were sent to make head against the Damascenes ; and the Doge, leaving ships enough to blockade the port, sailed himself, with what could be spared, to *find* the Egyptian fleet. He sailed to Alexandria, showed his sails along the coast in defiance, and returned.

Meantime his coin for payment of his mariners was spent. He did not care to depend on remittances. He struck a coin-

*By doing this he left his fleet helpless before an enemy, for naval warfare at this time depended wholly on the fine steering of the ships at the moment of onset. But for all ordinary maneuvers necessary for the safety of the fleet in harbor, their oars were enough. Andrea Dandolo says he took a plank ("tabula") out of each ship,—a more fatal injury. I suspect the truth to have been that he simply unshipped the rudders, and brought them into camp ; a grave speechless symbol, earnest enough ; but not costly of useless labor.

age of leather, with St. Mark's and his own shield on it, promising his soldiers that for every leathern rag, so signed, at Venice, there should be given a golden zecchin. And his word was taken; and his word was kept.

10. So the steady siege went on, till the Tyrians lost hope, and asked terms of surrender.

They obtained security of person and property, to the indignation of the Christian soldiery, who had expected the sack of Tyre. The city was divided into three parts, of which two were given to the King of Jerusalem, the third to the Venetians.

How Baldwin governed his two-thirds, I do not know, nor what capacity there was in the Tyrians of being governed at all. But the Venetians, for their third part, appointed a 'bailo' to do civil justice, and a 'viscount' to answer for military defence; and appointed magistrates under these, who, on entering office, took the following oath:—

"I swear on the holy Gospels of God, that sincerely and without fraud I will do right to all men who are under the jurisdiction of Venice in the city of Tyre; and to every other who shall be brought before me for judgment, according to the ancient use and law of the city. And so far as I know not, and am left uninformed of that, I will act by such rule as shall appear to me just, according to the appeal and answer. Farther, I will give faithful and honest counsel to the Bailo and the Viscount, *when I am asked for it*; and if they share any secret with me, I will keep it; neither will I procure by fraud, good to a friend, nor evil to an enemy." And thus the Venetian state planted stable colonies in Asia.

11. Thus far Romanin; to whom, nevertheless, it does not occur to ask what 'establishing colonies in Asia' meant for Venice. Whether they were in Asia, Africa, or the Island of Atlantis, did not at this time greatly matter; but it mattered infinitely that they were *colonies living in friendly relations with the Saracen*, and that at the very same moment arose cause of quite other than friendly relations, between the Venetian and the Greek.

For while the Doge Michael fought for the Christian king at Jerusalem, the Christian emperor at Byzantium attacked the defenceless states of Venice, on the mainland of Dalmatia, and seized their cities. Whereupon the Doge set sail homewards, fell on the Greek islands of the Egean, and took the spoil of them; seized Cephalonia; recovered the lost cities of Dalmatia; compelled the Greek emperor to sue for peace,—gave it, in angry scorn; and set his sails at last for his own Rialto, with the scepters of Tyre and of Byzantium to lay at the feet of Venice.

Spoil also he brought, enough, of such commercial kind as Venice valued. These pillars that you look upon, of rosy and gray rock; and the dead bodies of St. Donato and St. Isidore.

12. He thus returned, 1126; Fate had left him yet four years to live. In which, among other homely work, he made the beginning for you, (oh much civilized friend, you will at least praise him in this) of these mighty gaseous illuminations by which Venice provides for your seeing her shopwares by night, and provides against your seeing the moon, or stars, or sea.

For, finding the narrow streets of Venice dark and opportune for robbers, he ordered that at the heads of them there should be set little tabernacles for images of the saints, and before each a light kept burning. Thus he commands,—not as thinking that the saints themselves had need of candles, but that they would gladly grant to poor mortals in danger, material no less than heavenly light.

And having, in this pretty and lowly beneficence, ended what work he had to do in this world, feeling his strength fading, he laid down sword and ducal robe together; and became a monk, in this island of St. George, at the shore of which, you are reading; but the old monastery on it which sheltered him was destroyed long ago, that this stately Palladian portico might be built, to delight Mr. Eustace on his classical tour,—and other such men of renown,—and persons of excellent taste like yourself.

13. And there he died, and was buried; and there he lies, virtually tombless; the place of his grave you find by going down the steps on your right hand behind the altar, leading into what was yet a monastery before the last Italian revolution, but is now a finally deserted loneliness.

Over his grave there is a heap of frightful modern upholsterer's work,—Longhena's; his first tomb (of which you may see some probable likeness in those at the side of St. John and St. Paul,) being removed as too modest and time-worn for the vulgar Venetian of the seventeenth century; and this, that you see, put up to please the Lord Mayor and the beadles.

The old inscription was copied on the rotten black slate which is breaking away in thin flakes, dimmed by dusty salt. The beginning of it yet remains:—"Here lies the Terror of the Greeks." Read also the last lines:—

"WHOSOEVER THOU ART, WHO COMEST TO BEHOLD THIS TOMB OF HIS, BOW THYSELF DOWN BEFORE GOD, BECAUSE OF HIM."

Of these things, then, the two pillars before you are 'famous' in memorial. What in themselves they possess deserving honor, we will next try to discern. But you must row a little nearer to the pillars, so as to see them clearly.

CHAPTER II.

LATRATOR ANUBIS.

14. I SAID these pillars were the most beautiful known to me:—but you must understand this saying to be of the whole pillar—group of base, shaft, and capital—not only of their shafts.

You know so much of architecture, perhaps, as that an ‘order’ of it is the system, connecting a shaft with its capital and cornice. And you can surely feel so much of architecture, as that, if you took the heads off these pillars, and set the granite shaft simply upright on the pavement, they would perhaps remind you of ninepins, or rolling-pins, but would in no wise contribute either to respectful memory of the Doge Michael, or to the beauty of the Piazzetta.

Their beauty, which has been so long instinctively felt by artists, consists then first in the proportion, and then in the propriety of their several parts. Do not confuse proportion with propriety. An elephant is as properly made as a stag; but he is not so gracefully proportioned. In fine architecture, and all other fine arts, grace and propriety meet.

15. I will take the fitness first. You see that both these pillars have wide bases of successive steps.* You can feel that these would be ‘improper’ round the pillars of an arcade in which people walked, because they would be in the way. But they are proper here, because they tell us the pillar is to be isolated, and that it is a monument of importance. Look from these shafts to the arcade of the Ducal Palace. Its pillars have been found fault with for wanting bases. But they were meant to be walked beside without stumbling.

Next, you see the tops of the capitals of the great pillars

* Restored,—but they always must have had them, in some such proportion.

spread wide, into flat tables. You can feel, surely, that these are entirely 'proper,' to afford room for the statues they are to receive, and that the edges, which bear no weight, may 'properly' extend widely. But suppose a weight of superincumbent wall were to be laid on these pillars? The extent of capital which is now graceful, would then be weak and ridiculous.

16. Thus far of propriety, whose simple laws are soon satisfied: next, of proportion.

You see that one of the shafts,—the St. Theodore's,—is much more slender than the other.

One general law of proportion is that a slender shaft should have a slender capital, and a ponderous shaft, a ponderous one.

But had this law been here followed, the companion pillars would have instantly become ill-matched. The eye would have discerned in a moment the fat pillar and the lean. They would never have become the fraternal pillars—'the two' of the Piazzetta.

With subtle, scarcely at first traceable, care, the designer varied the curves and weight of his capitals; and gave the massive head to the slender shaft, and the slender capital to the massive shaft. And thus they stand in symmetry, and uncontenting equity.

Next, for the form of these capitals themselves, and the date of them.

You will find in the guide-books that though the shafts were brought home by the Doge in 1126, no one could be found able to set them up until the year 1171, when a certain Lombard, called Nicholas of the Barterers, raised them, and for reward of such engineering skill, bargained that he might keep tables for forbidden games of chance between the shafts. Whereupon the Senate ordered that executions should also take place between them.

17. You read, and smile, and pass on with a dim sense of having heard something like a good story.

Yes; of which I will pray you to remark, that at that

uncivilized time, games of chance were forbidden in Venice, and that in these modern civilized times they are not forbidden; and one, that of the lottery, even promoted by the Government, is gainful: and that perhaps the Venetian people might find itself more prosperous on the whole by obeying that law of their fathers,* and ordering that no lottery should be drawn, except in a place where somebody had been hanged.† But the curious thing is that while this pretty story is never forgotten, about the raising of the pillars, nothing is ever so much as questioned about who put their tops and bases to them!—nothing about the resolution that lion or saint should stand to preach on them,—nothing about the Saint's sermon, or the Lion's;—nor enough, even, concerning the name or occupation of Nicholas the Barterer, to lead the pensive traveler into a profitable observance of the appointment of Fate, that in this Tyre of the West, the city of merchants, her monuments of triumph over the Tyre of the East, should for ever stand signed by a tradition recording the stern judgment of her youth against the gambler's lust, which was the passion of her old age.

18. But now of the capitals themselves. If you are the least interested in architecture, should it not be of some importance to you to note the style of them? Twelfth century capitals, as fresh as when they came from the chisel, are not to be seen every day, or everywhere;—much less capitals like these, a fathom or so broad and high! And if you know the architecture of England and France in the twelfth century, you will find these capitals still more interesting from their extreme difference in manner. Not the least like our clumps and humps and cushions, are they? For these are living Greek work, still; not savage Norman or clumsy Northumbrian, these; but of pure Corinthian race; yet, with Venetian

* Have you ever read the 'Fortunes of Nigel' with attention to the moral of it?

† It orders now that the drawing should be at the foot of St. Mark's Campanile: and, weekly, the mob of Venice, gathered for the event, fills the marble porches with its anxious murmur.

practicalness of mind, solidified from the rich clusters of light leafage which were their ancient form. You must find time for a little practical cutting of capitals yourself, before you will discern the beauty of these. There is nothing like a little work with the fingers for teaching the eyes.

As you go home to lunch, therefore, buy a pound of Gruyère cheese, or of any other equally tough and bad, with as few holes in it as may be. And out of this pound of cheese, at lunch, cut a solid cube as neatly as you can.

19. Now all treatment of capitals depends primarily on the way in which a cube of stone, like this of cheese, is left by the carver square at the top, to carry the wall, and cut round at the bottom to fit its circular pillar. Proceed therefore to cut your cube so that it may fit a round pillar of cheese at the bottom, such as is extracted, for tasting, by magnanimous cheesemongers, for customers worth their while. Your first natural proceeding will of course be to cut off four corners; so making an octagon at the bottom, which is a good part of the way to a circle. Now if you cut off those corners with rather a long, sweeping cut, as if you were cutting a pencil, you will see that already you have got very near the shape of the Piazzetta capitals. But you will come still nearer, if you make each of these simple corner-cuts into two narrower ones, thus bringing the lower portion of your bit of cheese into a twelve-sided figure. And you will see that each of these double-cut angles now has taken more or less the shape of a leaf, with its central rib at the angle. And if, further, with such sculpturesque and graphic talent as may be in you, you scratch out the real shape of a leaf at the edge of the cuts, and run furrows from its outer lobes to the middle,—behold, you have your Piazzetta capital. *All but* have it, I should say; only this ‘all but’ is nearly all the good of it, which comes of the exceeding fineness with which the simple curves are drawn, and reconciled.

20. Nevertheless, you will have learned, if sagacious in such matters, by this quarter of an hour’s carving, so much of architectural art as will enable you to discern, and to enjoy

the treatment of, all the twelfth and thirteenth century capitals in Venice, which, without exception, when of native cutting, are concave bells like this, with either a springing leaf, or a bending boss of stone which would become a leaf if it were furrowed, at the angles. But the fourteenth century brings a change.

Before I tell you what took place in the fourteenth century, you must cut yourself another cube of Gruyère cheese. You see that in the one you have made a capital of already, a good weight of cheese out of the cube has been cut away in tapering down those long-leaf corners. Suppose you try now to make a capital of it without cutting away so much cheese. If you begin half way down the side, with a shorter but more curved cut, you may reduce the base to the same form, and—supposing you are working in marble instead of cheese—you have not only much less trouble, but you keep a much more solid block of stone to bear superincumbent weight.

21. Now you may go back to the Piazzetta, and thence proceeding, so as to get well in front of the Ducal Palace, look first to the Greek shaft capitals, and then to those of the Ducal Palace upper arcade. You will recognize, especially in those nearest the Ponte della Paglia, (at least, if you have an eye in your head,) the shape of your second block of Gruyère,—decorated, it is true, in manifold ways—but essentially shaped like your most cheaply cut block of cheese. Modern architects, in imitating these capitals, can reach as far as—imitating your Gruyère. Not being able to decorate the block when they have got it, they declare that decoration is “a superficial merit.”

Yes,—very superficial. Eyelashes and eyebrows—lips and nostrils—chin-dimples and curling hair, are all very superficial things, wherewith Heaven decorates the human skull; making the maid's face of it, or the knight's. Nevertheless, what I want you to notice now, is but the form of the block of Istrian stone, usually with a spiral, more or less elaborate, on each of its projecting angles. For there is infinitude of

history in that solid angle, prevailing over the light Greek leaf.

That is related to our humps and clumps at Durham and Winchester. Here is, indeed, Norman temper, prevailing over Byzantine; and it means,—the outcome of that quarrel of Michael with the Greek Emperor. It means—western for eastern life, in the mind of Venice. It means her fellowship with the western chivalry; her triumph in the Crusades,—triumph over her own foster nurse, Byzantium.

22. Which significances of it, and many others with them, if we would follow, we must leave our stone-cutting for a little while, and map out the chart of Venetian history from its beginning into such masses as we may remember without confusion.

But, since this will take time, and we cannot quite tell how long it may be before we get back to the twelfth century again, and to our Piazzetta shafts, let me complete what I can tell you of these at once.

In the first place, the lion of St. Mark is a splendid piece of eleventh or twelfth century bronze. I know that by the style of him; but have never found out where he came from.* I may now chance on it, however, at any moment in other quests. Eleventh or twelfth century, the Lion—fifteenth, or later, his wings; very delicate in feather-workmanship, but with little lift or strike in them: decorative mainly. Without doubt his first wings were thin sheets of beaten bronze, shred into plumage; far wider in their sweep than these.†

23. The statue of St. Theodore, whatever its age, is wholly

* "He"—the actual piece of forged metal, I mean. (See Appendix II. for account of its recent botchings.) Your modern English explainers of him have never heard, I observe, of any such person as an 'Evangelist,' or of any Christian symbol of such a being! See page 42 of Mr. Adams' 'Venice Past and Present' (Edinburgh and New York, 1852).

† I am a little proud of this guess, for before correcting this sentence in type, I found the sharp old wings represented faithfully in the woodcut of Venice in 1480, in the Correr Museum. Dürer, in 1500, draws the present wings; so that we get their date fixed within twenty years.

without merit. I can't make it out myself, nor find record of it; in a stonemason's yard, I should have passed it as modern. But this merit of the statue is here of little consequence,—the power of it being wholly in its meaning.

St. Theodore represents the power of the Spirit of God in all noble and useful animal life, conquering what is venomous, useless, or in decay: he differs from St. George in contending with material evil, instead of with sinful passion: the crocodile on which he stands is the Dragon of Egypt; slime-begotten of old, worshiped in its malignant power, for a God. St. Theodore's martyrdom was for breaking such idols; and with beautiful instinct Venice took him in her earliest days for her protector and standard-bearer, representing the heavenly life of Christ in men, prevailing over chaos and the deep.

With far more than instinct,—with solemn recognition, and prayerful vow, she took him in the pride of her chivalry, in mid-thirteenth century, for the master of that chivalry in their gentleness of home ministries. The 'Mariogola' (Mother-Law) of the school of St. Theodore, by kind fate yet preserved to us, contains the legend they believed, in its completeness, and their vow of service and companionship in all its terms.

24. Either of which, if you care to understand—several other matters and writings must be understood first; and, among others, a pretty piece of our own much boasted,—how little obeyed,—Mother-Law, sung still by statute in our churches at least once in the month; the eighty-sixth Psalm. "Her foundations are in the holy Mountains." I hope you can go on with it by heart, or at least have your Bible in your portmanteau. In the remote possibility that you may have thought its carriage unnecessarily expensive, here is the Latin psalm, with its modern Italian-Catholic* translation: watery

* From the 'Uffizio della B. V. Maria, Italiano e Latino, per tutti i tempi dell' anno, del Padre G. Croiset,' a well printed and most serviceable little duodecimo volume, for any one wishing to know somewhat of Roman Catholic offices. Published in Milan and Venice.

enough, this last, but a clear and wholesome, though little vapid, dilution and diffusion of its text,—making much intelligible to the Protestant reader, which his ‘private judgment’ might occasionally have been at fault in.

Fundamenta eius in montibus sanctis: diligit Dominus portas Sion super omnia tabernacula Iacob.

Gloriosa dicta sunt de te, civitas Dei.

Memor ero Rahab et Babylonis, scientium me.

Ecce alienigenæ, et Tyrus, et populus Æthiopum hi fuerunt illic.

Numquid Sion dicet: Homo et homo natus est in eâ, et ipse fundavit eam Altissimus?

Dominus narrabit in scripturis populorum et principum: horum qui fuerunt in ea.

Sicut lætantium omnium habitatio est in te.

Gerusalemme è fabbricata sopra i santi monti: Iddio ne prende più cura, e l’ama più che tutti gli altri luoghi che dal suo popolo sono abitati.

Quante cose tutte piene di lode sono state dette di voi, città di Dio!

Non lascerò nell’oblivione nè l’Egitto nè Babilonia, dacchè que’ popolimi avranno riconosciuto per loro Dio.

Quanti popoli stranieri, Tiri, Etiopi, sino a quel punto miei nemici, verranno a prestarmi i loro omaggi.

Ognuno dirà allora: Vedete come questa città si è popolata! l’Altissimo l’ha fondata e vuole metterla in fiore.

Egli perciò è l’unico che conosca il numero del popolo e de’ grandi che ne sono gli abitanti.

Non vi è vera felicità, se non per coloro che vi haune l’abitazione.

25. Reading then the psalm in these words, you have it as the Western Christians sang it ever since St. Jerome wrote it into such interpretation for them; and you must try to feel it as these Western Christians of Venice felt it, having now their own street in the holy city, and their covenant with the Prior of Mount Syon, and of the Temple of the Lord; they themselves having struck down Tyre with their own swords, taken to themselves her power, and now reading, as of themselves, the encompassing benediction of the prophecy for all Gentile nations, “*Ecce alienigenæ—et Tyrus.*” A

notable piece of Scripture for them, to be dwelt on, in every word of it, with all humility of faith.

What then *is* the meaning of the two verses just preceding these?—

“Glorious things are spoken of thee, thou City of God. I will make mention of Rahab and Babylon, with them that know me.”

26. If you like to see a curious mistake at least of *one* Protestant's ‘private judgment’ of this verse, you must look at my reference to it in *Fors Clavigera* of April, 1876, p. 110, with its correction by Mr. Gordon, in *Fors* for June, 1876, pp. 178–203, all containing variously useful notes on these verses; of which the gist is, however, that the ‘Rahab’ of the Latin text is the Egyptian ‘Dragon,’ the crocodile, signifying in myth, which has now been three thousand years continuous in human mind, the total power of the crocodile god of Egypt, couchant on his slime, born of it, mistakable for it,—his gray length of unintelligible scales, fissured and wrinkled like dry clay, itself but, as it were, a shelf or shoal of coagulated, malignant earth. He and his company, the deities born of the earth—beast headed,—with only animal cries for voices;—

“Omnigenumque Deum monstra, et latrator Anubis
Contra Neptunum et Venerem, contraque Minervam.”

This is St. Theodore's Dragon-enemy—Egypt and her captivity; bondage of the earth, literally to the Israelite, in making bricks of it, the first condition of form for the God: in sterner than more literal truth, the captivity of the spirit of man, whether to earth or to its creatures.

And St. Theodore's victory is making the earth his pedestal, instead of his adversary; he is the power of gentle and rational life, reigning over the wild creatures and senseless forces of the world. The Latrator Anubis—most senseless and cruel of the guardians of hell—becoming, by human mercy, the faithfulest of creature-friends to man.

27. Do you think all this work useless in your Venetian guide? There is not a picture,—not a legend,—scarcely a column or an ornament, in the art of Venice or of Italy, which, by this piece of work, well done, will not become more precious to you. Have you ever, for instance, noticed how the baying of Cerberus is stopped, in the sixth canto of Dante?—

“Il duca mio
Prese la terra ; et con piene le pugne
La gitto dentro alle bramose canne.”

(To the *three*, therefore plural.) It is one of the innumerable subtleties which mark Dante's perfect knowledge—inconceivable except as a form of inspiration—of the inner meaning of every myth, whether of classic or Christian theology, known in his day.

28. Of the relation of the dog, horse, and eagle to the chivalry of Europe, you will find, if you care to read, more noted, in relation to part of the legend of St. Theodore, in the Fors of March, this year; the rest of his legend, with what is notablest in his ‘*Mariegola*,’ I will tell you when we come to examine Carpaccio's canonized birds and beasts; of which, to refresh you after this piece of hard ecclesiastical reading, (for I can't tell you about the bases of the pillars to-day. We must get into another humor to see these,) you may see within five minutes' walk, three together, in the little chapel of St. George of the Schiavoni;—St. George's ‘*Porphyrio*,’ the bird of chastity, with the bent spray of sacred vervain in its beak, at the foot of the steps on which St. George is baptizing the princess; St. Jerome's lion, being introduced to the monastery (with resultant effect on the minds of the brethren); and St. Jerome's dog, watching his master translating the Bible, with highest complacency of approval.

29. And of St. Theodore himself you may be glad to know that he was a very historical and substantial saint as late as the fifteenth century, for in the Inventory of the goods and chattels of his scuola, made by order of its master (Gastoldo),

and the companions, in the year 1450, the first article is the body of St. Theodore, with the bed it lies on, covered by a coverlid of "pañõ di grano di seta, brocado de oro fino." So late as the middle of the fifteenth century, (certified by the "inventario fatto a di XXX. de Novembrio MCCCCL. per. Sr nanni di piero de la colõna, Gastoldo, e suoi campagni, de tutte reliquie e arnesi e beni, se trova in questa hora presente in la nostra scuola,") here lay this treasure, dear to the commercial heart of Venice.

Oh, good reader, who hast ceased to count the Dead bones of men for thy treasure, hast thou then thy Dead laid up in the hands of the Living God?

CHAPTER III.

ST. JAMES OF THE DEEP STREAM.

30. TWICE one is two, and twice two is four; but twice one is not three, and twice two is not six, whatever Shylock may wish, or say, in the matter. In wholesale memory of which arithmetical, and (probably) eternal, fact, and in loyal defiance of Shylock and his knife, I write down for you these figures, large and plain:—

1. 2. 4.

Also in this swiftly progressive ratio, the figures may express what modern philosophy considers the rate of progress of Venice, from her days of religion, and golden ducats, to her days of infidelity, and paper notes.

Read them backwards, then, sublime modern philosopher; and they will give you the date of the birth of that foolish Venice of old time, on her narrow island.

4. 2. 1.

In that year, and on the very day—(little foolish Venice used to say, when she was a very child),—in which, once upon a time, the world was made; and, once upon another time—the Ave Maria first said,—the first stone of Venice was laid on the sea sand, in the name of St. James the fisher.

I think you had better go and see with your own eyes,—tread with your own foot,—the spot of her nativity: so much of a spring day as the task will take, cannot often be more profitably spent, nor more affectionately towards God and man, if indeed you love either of them.

31. So, from the Grand Hotel,—or the Swiss Pension—
or the duplicate Danieli with the drawbridge,—or wherever else among the palaces of resuscitated Venice you abide, congratulatory modern ambassador to the Venetian Senate—

please, to-day, walk through the Merceria, and through the Square of St. Bartholomew, where is the little octagon turret-chapel in the center, for sale of news: and cross the Rialto—not in the middle of it, but on the right hand side, crossing from St. Mark's. You will probably find it very dirty,—it may be, indecently dirty,—that is modern progress, and Mr. Buckle's civilization; rejoice in it with a thankful heart, and stay in it placidly, after crossing the height of the bridge, when you come down just on a level with the capitals of the first story of the black and white, all but ruined, Palace of the Camerlenghi; Treasurers of Venice, built for them when she began to feel anxious about her accounts. 'Black and white,' I call it, because the dark lichens of age are yet on its marble—or, at least, were, in the winter of '76—'77; it may be, even before these pages get printed, it will be scraped and re-gilt—or pulled down, to make a railroad station at the Rialto.

32. Here standing, if with good eyes, or a good opera glass, you look back, up to the highest story of the blank and ugly building on the side of the canal you have just crossed from,—you will see between two of its higher windows, the remains of a fresco of a female figure. It is, so far as I know, the last vestige of the noble fresco painting of Venice on her outside walls;—Giorgione's,—no less,—when Titian and he were house-painters,—the Sea-Queen so ranking them, for her pomp, in her proud days. Of this, and of the black and white palace, we will talk another day. I only asked you to look at the fresco just now, because therein is seen the end of *my* Venice,—the Venice I have to tell you of. Yours, of the Grand Hotels and the Peninsular steamers, you may write the history of, for yourself.

Therein,—as it fades away—ends the Venice of St. Mark's Rest. But where she was born, you may now go quite down the steps to see. Down, and through among the fruit-stalls, into the little square on the right; then turning back, the low portico is in front of you;—not of the ancient church indeed, but of a fifteenth century one—variously

translated, in succeeding times, into such small picturesqueness of stage effect as it yet possesses; escaping, by God's grace, however, the fire which destroyed all the other buildings of ancient Venice, round her Rialto square, in 1513.*

33. Some hundred or hundred and fifty years before that, Venice had begun to suspect the bodies of saints to be a poor property; carrion, in fact,—and not even exchangeable carrion. Living flesh might be bought instead,—perhaps of prettier aspect. So, as I said, for a hundred years or so, she had brought home no relics,—but set her mind on trade-profits, and other practical matters; tending to the achievement of wealth, and its comforts, and dignities. The curious result being, that at that particular moment, when the fire devoured her merchants' square, center of the then mercantile world—she happened to have no money in her pocket to build it again with.

34. Nor were any of her old methods of business again to be resorted to. Her soldiers were now foreign mercenaries, and had to be paid before they would fight; and prayers, she had found out long before our English wiseacre apothecaries' apprentices, were of no use to get either money, or new houses with, at a pinch like this. And there was really nothing for it but doing the thing cheap,—since it had to be done. Fra Giocondo of Verona offered her a fair design; but the city could not afford it. Had to take Scarpagnino's make-shift instead;—and with his help, and Sansovino's, between 1520 and 1550, she just managed to botch up—what you see surround the square, of architectural state-liness for her mercantile home. Discovery of the Cape of Good Hope, the main cause of these sorrowful circumstances of hers,—observe, sagacious historians.

At all events, I have no doubt the walls were painted red, with some medallions, or other cheap decoration, under the cornices, enough to make the little square look comfortable.

* Many chronicles speak of it as burned; but the authoritative inscription of 1601 speaks of it as 'consumed by age,' and is therefore conclusive on this point.

Whitewashed and squalid now—it may be left, for this time, without more note of it, as we turn to the little church.*

35. Your Murray tells you it was built “in its present form” in 1194, and “rebuilt in 1531, but precisely in the old form,” and that it “has a fine brick campanile.” The fine brick campanile, visible if you look behind you, on the other side of the street, belongs to the church of St. John Elemosinario. And the statement that the church was “rebuilt in precisely the old form” must also be received with allowances. For the “campanile” here, is in the most orthodox English Jacobite style of the seventeenth century, the portico is Venetian fifteenth, the walls are in no style at all, and the little Madonna inserted in the middle of them is an exquisitely finished piece of the finest work of 1320 to 1350.

And, alas, the church is not only quite other in form, but even other in *place*, than it was in the fifth century, having been moved like a bale of goods, and with apparently as little difficulty as scruple, in 1322, on a report of the Salt Commissioners about the crowding of shops round it. And, in sum, of particulars of authentically certified vicissitudes, the little church has gone through these following—how many more than these, one cannot say—but these at least (see Appendix III.) :—

36. I. Founded traditionally in 432 (serious doubts whether on Friday or Saturday, involving others about the year itself). The tradition is all we need care for.

II. Rebuilt, and adorned with Greek mosaic work by the Doge Domenico Selvo, in 1073: the Doge having married a Greek wife, and liking pretty things. Of this husband and wife you shall hear more, anon.

III. Retouched, and made bright again, getting also its due share of the spoil of Byzantium sent home by Henry Dandolo, 1174.

* Do not, if you will trust me, at this time let your guide take you to look at the Gobbo di Rialto, or otherwise interfere with your immediate business.

IV. Dressed up again, and moved out of the buyers' and sellers' way, in 1322.

V. 'Instaured' into a more splendid church (dicto templo in splendidiorem ecclesiam instaurato) by the elected plebanus, Natalis Regia, desirous of having the church devoted to *his* honor instead of St. James's, 1531.

VI. Lifted up, (and most likely therefore first much pulled down,) to keep the water from coming into it, in 1601, when the double arched campanile was built, and the thing finally patched together in the present form. Doubtless soon, by farther 'progresso' to become a provision, or, perhaps, a petroleum-store, Venice having no more need of temples; and being, as far as I can observe, ashamed of having so many, overshadowing her buyers and sellers. Better rend the veils in twain for ever, if convenient store-shops may be formed inside.

37. These, then, being authentic epochs of change, you may decipher at ease the writing of each of them,—what is left of it. The campanile with the ugly head in the center of it is your final Art result, 1601. The portico in front of you is Natalis Regia's 'instauration' of the church as it stood after 1322, retaining the wooden simplicities of bracket above the pillars of the early loggia; the Madonna, as I said, is a piece of the 1320 to 1350 work; and of earlier is no vestige here. But if you will walk twenty steps round the church, at the back of it, on the low gable, you will see an inscription in firmly graven long Roman letters, under a cross, similarly inscribed.

That is a vestige of the eleventh century church; nay, more than vestige, the *Voice* of it—Sibylline,—left when its body had died.

Which I will ask you to hear, in a little while. But first you shall see also a few of the true stones of the older Temple. Enter it now; and reverently; for though at first, amidst wretched whitewash and stucco, you will scarcely see the true marble, those six pillars and their capitals are yet actual remnants and material marble of the venerable church; prob-

ably once extending into more arches in the nave; but this transept ceiling of wagon vault, with the pillars that carry it, is true remnant of a mediæval church, and, in all likelihood, true image of the earliest of all—of the first standard of Venice, planted, under which to abide; the Cross, engraven on the sands thus in relief, with two little pieces of Roman vaulting, set cross wise;—your modern engineers will soon make as large, in portable brickwork, for London drains, admirable, worshipful, for the salvation of London mankind:—here artlessly rounded, and with small cupola above the crossing.

38. Thus she set her sign upon the shore; some knot of gelatinous seaweed there checking the current of the 'Deep Stream,' which sweeps round, as you see, in that sigma of canal, as the Wharfe round the shingly bank of Bolton Abbey,—a notablest Crook of Lune, this; and Castrum, here, on sands that will abide.

It is strange how seldom rivers have been named from their depth. Mostly they take at once some dear, companionable name, and become gods, or at least living creatures, to the refreshed people; if not thus Pagan-named, they are noted by their color, or their purity,—White River, Black River, Rio Verde, Aqua Dolce, Fiume di Latte; but scarcely ever, 'Deep River.'

39. And this Venetian slow-pacing water, not so much as a river, or anything like one; but a rivulet, 'fiumicello,' only rising in those low mounds of volcanic hill to the west. "'Rialto,' 'Rialtum,' 'Prealtum'" (another idea getting confused with the first), "dal fiumicello di egual nome che, scendendo dei colli Euganei gettavasi nel Brenta, con esso scorrendo lungo quelle isole dette appunto Realtine."* The serpentine depth, consistent always among consistent shallow, being here vital; and the conception of it partly mingled with that of the power of the open sea—the infinito 'Altum'; sought by the sacred water, as in the dream of Eneas, "lacu fluvius se condidit alto." Hence the united

* Romanin.

word takes, in declining Latin, the shorter form, *Rialtum*,—properly, in the scholarship of the State-documents, ‘*Rivaltus*.’ So also, throughout Venice, the Latin *Rivus* softens into *Rio*; the Latin *Ripa* into *Riva*, in the time when you had the running water—not ‘canals,’ but running brooks of sea,—‘*lympha fugax*,’—trembling in eddies, between, not quays, but banks of pasture land; soft ‘*campi*,’ of which, in St. Margaret’s field, I have but this autumn seen the last worn vestige trodden away; and yesterday, Feb. 26th, in the morning, a little tree that was pleasant to me taken up from before the door, because it had heaved the pavement an inch or two out of square; also beside the Academy, a little overhanging momentary shade of boughs hewn away, ‘to make the street “bello,”’ said the axe-bearer. ‘What,’ I asked, ‘will it be prettier in summer without its trees?’ ‘*Non x’e bello il verde*,’ he answered.* True oracle; though he knew not what he said;—voice of the modern Church of Venice ranking herself under the black standard of the pit.

40. I said you should hear the oracle of her ancient Church in a little while; but you must know why, and to whom it was spoken, first,—and we must leave the Rialto for to-day. Look, as you recross its bridge, westward, along the broad-flowing stream; and come here also, this evening, if the day sets calm, for then the waves of it from the Rialto island to the *Câ Foscari*, glow like an Eastern tapestry in soft-flowing crimson, fretted with gold; and beside them,

* I observe the good people of Edinburgh have the same taste; and rejoice proudly at having got an asphalt esplanade at the end of Prince’s Street, instead of cabbage-sellers. Alas! my Scottish friends; all that Prince’s Street of yours has not so much beauty in it as a single cabbage stalk, if you had eyes in your heads,—rather the extreme reverse of beauty; and there is not one of the lassies who now stagger up and down the burning marle in high-heeled boots and French bonnets, who would not look a thousand-fold prettier, and feel, there’s no counting how much nobler, bare-headed but for the snood, and bare-foot on old-fashioned grass by the Nor’ loch side, bringing home from market, basket on arm, pease for papa’s dinner, and a bunch of cherries for baby.

amidst the tumult of squalid ruin, remember the words that are the 'burden of Venice,' as of Tyre:—

“Be still, ye inhabitants of the Isle. Thou whom the merchants of Zidon, that pass over the sea, have replenished. By great waters, the seed of Sihor, the harvest of the river, is her revenue; and she is a mart of nations.”

CHAPTER IV.

ST. THEODORE THE CHAIR-SELLER.

41. THE history of Venice divides itself, with more sharpness than any other I have read, into periods of distinct tendency and character; marked, in their transition, by phenomena no less definite than those of the putting forth the leaves, or setting of the fruit, in a plant;—and as definitely connected by one vitally progressive organization, of which the energy must be studied in its constancy, while its results are classed in grouped system.

If we rightly trace the order, and estimate the duration, of such periods, we understand the life, whether of an organized being, or a state. But not to know the time when the seed is ripe, or the soul mature, is to misunderstand the total creature.

In the history of great multitudes, these changes of their spirit, and regenerations, (for they are nothing less,) of their physical power, take place through so subtle gradations of declining and dawning thought, that the effort to distinguish them seems arbitrary, like separating the belts of a rainbow's color by firmly drawn lines. But, at Venice, the lines are drawn for us by her own hand; and the changes in her temper are indicated by parallel modifications of her policy and constitution, to which historians have always attributed, as to efficient causes, the national fortunes of which they are only the signs and limitation.

42. In this history, the reader will find little importance attached to these external phenomena of political constitution; except as labels, or, it may be, securing seals, of the state of the nation's heart. They are merely shapes of amphora, artful and decorative indeed; tempting to criticism

or copy of their form, usefully recordant of different ages of the wine, and having occasionally, by the porousness or perfectness of their clay, effect also on its quality. But it is the grape-juice itself, and the changes in *it*, not in the forms of flask, that we have in reality to study.

Fortunately also, the dates of the great changes are easily remembered; they fall with felicitous precision at the beginning of centuries, and divide the story of the city, as the pillars of her Byzantine courts, the walls of it, with symmetric stability.

She shall also tell you, as I promised, her own story, in her own handwriting, all through. Not a word shall *I* have to say in the matter; or aught to do, except to deepen the letters for you when they are indistinct, and sometimes to hold a blank space of her chart of life to the fire of your heart for a little while, until words, written secretly upon it, are seen;—if, at least, there is fire enough in your own heart to heat them.

43. And first, therefore, I must try what power of reading you have, when the letters are quite clear. We will take to-day, so please you, the same walk we did yesterday; but looking at other things, and reading a wider lesson.

As early as you can, (in fact, to get the good of this walk, you must be up with the sun,) any bright morning, when the streets are quiet, come with me to the front of St. Mark's, to begin our lesson there.

You see that between the arches of its vaults, there are six oblong panels of bas-relief.

Two of these are the earliest pieces of real Venetian work I know of, to show you; but before beginning with them, you must see a piece done by her Greek masters.

Go round therefore to the side farthest from the sea, where, in the first broad arch, you will see a panel of like shape, set horizontally; the sculpture of which represents twelve sheep—six on one side, six on the other, of a throne: on which throne is set a cross; and on the top of the cross a circle; and in the circle, a little caprioling creature.

And outside of all, are two palm trees, one on each side; and under each palm tree, two baskets of dates; and over the twelve sheep, is written in delicate Greek letters "The holy Apostles;" and over the little caprioling creature, "The Lamb."

44. Take your glass and study the carving of this bas-relief intently. It is full of sweet care, subtlety, tenderness of touch, and mind; and fine cadence and change of line in the little bowing heads and bending leaves. Decorative in the extreme; a kind of stone-stitching or sampler-work, done with the innocence of a girl's heart, and in a like unlearned fulness. Here is a Christian man, bringing order and loveliness into the mere furrows of stone. Not by any means as learned as a butcher, in the joints of lambs; nor as a grocer, in baskets of dates; nor as a gardener, in endogenous plants: but an artist to the heart's core; and no less true a lover of Christ and His word. Helpless, with his childish art, to carve Christ, he carves a cross, and caprioling little thing in a ring at the top of it. You may try—you—to carve Christ, if you can. Helpless to conceive the Twelve Apostles, these nevertheless are sacred letters for the bearers of the Gospel of Peace.

Of such men Venice learned to touch the stone;—to become a Lapieida, and furrower of the marble as well as the sea.

Now let us go back to that panel on the left side of the central arch, in front.*

45. This, you see, is no more a symbolical sculpture, but

* Generally note, when I say 'right' or 'left' side of a church or chapel, I mean, either as you enter, or as you look to the altar. It is not safe to say 'north and south,' for Italian churches stand all round the compass; and besides, the phrase would be false of lateral chapels. Transepts are awkward, because often they have an altar instead of an entrance at their ends; it will be least confusing to treat them always as large lateral chapels, and place them in the series of such chapels at the sides of the nave, calling the sides right and left as you look either from the nave into the chapels, or from the nave's center to the rose window, or other termination of transept.

quite distinctly pictorial, and laboriously ardent to express, though in very low relief, a curly-haired personage, handsome, and something like George the Fourth, dressed in richest Roman armor, and sitting in an absurd manner, more or less tailor-fashion, if not cross-legged himself, at least on a conspicuously cross-legged piece of splendid furniture; which, after deciphering the Chinese, or engineer's isometrical, perspective of it, you may perceive to be only a gorgeous pic-nic or drawing-stool, apparently of portable character, such as are bought (more for luxury than labor,—for the real working apparatus is your tripod) at Messrs. Newman's, or Winsor and Newton's.

Apparently portable, I say; by no means intended as such by the sculptor. Intended for a most permanent and magnificent throne of state; nothing less than a derived form of that Greek *Thronos*, in which you have seen set the cross of the Lamb. Yes; and of the Tyrian and Judæan *Thronos*—Solomon's, which it frightened the queen of Sheba to see him sitting on. Yes; and of the Egyptian throne of eternal granite, on which colossal Memnon sits, melodious to morning light,—son of Aurora. Yes; and of the throne of Isis-Madonna, and, mightier yet than she, as we return towards the nativity of queens and kings. We must keep at present to our own poor little modern, practical saint—sitting on his portable throne, (as at the side of the opera when extra people are let in who shouldn't be); only seven hundred years old. To this cross-legged apparatus the Egyptian throne had dwindled down; it looks even as if the saint who sits on it might begin to think about getting up, some day or other.

46. All the more when you know who he is. Can you read the letters of his name, written beside him?—

SĪS

GEORGIVS

—Mr. Emerson's purveyor of bacon, no less! * And he *does*

* See *Fors Clavigera* of February, 1873 (Vol. III.), containing the legend of St. George.

look like getting up, when you observe him farther. Unsheathing his sword, is not he?

47. No; sheathing it. That was the difficult thing he had first to do, as you will find on reading the true legend of him, which *this* sculptor thoroughly knew; in whose conception of the saint, one perceives the date of said sculptor, no less than in the stiff work, so dimly yet perceptive of the ordinary laws of the aspect of things. From the bas-reliefs of the Parthenon—through sixteen hundred years of effort, and speech-making, and fighting—human intelligence in the Arts has arrived, here in Venice, thus far. But having got so far, we shall come to something fresh soon! We have become distinctly representative again, you see; desiring to show, not a mere symbol of a living man, but the man himself, as truly as the poor stone-cutter can carve him. All bonds of tyrannous tradition broken;—the legend kept, in faith yet; but the symbol become natural; a real armed knight, the best he could form a notion of; curly-haired and handsome; and, his also the boast of Dogberry, everything handsome about him. Thus far has Venice got in her art schools of the early thirteenth century. I can date this sculpture to that time, pretty closely; earlier, it may be,—not later; see afterwards the notes closing this chapter.

And now, if you so please, we will walk under the clock-tower, and down the Merceria, as straight as we can go. There is a little crook to the right, bringing us opposite St. Julian's church, (which, please, don't stop to look at just now): then, sharply, to the left again, and we come to the Ponte de' Baratteri,—“Rogue's bridge”—on which, as especially a grateful bridge to English business-feelings, let us reverently pause. It has been widened lately, you observe,—the use of such bridge being greatly increased in these times; and in a convenient angle, out of passenger current, (may you find such wayside withdrawal in true life!) you may stop to look back at the house immediately above the bridge.

48. In the wall of which you will see a horizontal panel

of bas-relief, with two shields on each side, bearing six fleurs-de-lys. And this you need not, I suppose, look for letters on, to tell you its subject. Here is St. George indeed!—our own beloved old sign of the George and Dragon, all correct; and, if you know your Seven champions, Sabra too, on the rock, thrilled witness of the fight. And see what a dainty St. George, too! Here is no mere tailor's enthronement. Eques, ipso melior Bellerophonti,—how he sits!—how he holds his lance!—how brightly youthful the crisp hair under his light cap of helm,—how deftly curled the fringe of his horse's crest,—how vigorous in disciplined career of accustomed conquest, the two noble living creatures! This is Venetian fifteenth century work of finest style. Outside-of-house work, of course: we compare at present outside work only, panel with panel: but here are three hundred years of art progress written for you, in two pages,—from early thirteenth to late fifteenth century; and in this little bas-relief is all to be seen, that can be, of elementary principle, in the very crest and pride of Venetian sculpture,—of which note these following points.

49. First, the aspirations of the front of St. Mark's have been entirely achieved, and though the figure is still symbolical, it is now a symbol consisting in the most literal realization possible of natural facts. That is the way, if you care to see it, that a young knight rode, in 1480, or thereabouts. So, his foot was set in stirrup,—so his body borne,—so trim and true and orderly everything in his harness and his life: and this rendered, observe, with the most consummate precision of artistic touch. Look at the strap of the stirrup,—at the little delicatest line of the spur,—can you think they are stone? don't they look like leather and steel? His flying mantle,—is it not silk more than marble? That is all in the beautiful doing of it: precision first in exquisite sight of the thing itself, and understanding of the qualities and signs, whether of silk or steel; and then, precision of touch, and cunning in use of material, which it had taken three hundred years to learn. Think what cunning there is in get-

ting such edge to the marble as will represent the spur line, or strap leather, with such solid under-support that, from 1480 till now, it stands rain and frost!

50. And for knowledge of form,—look at the way the little princess's foot comes out under the drapery as she shrinks back. Look at it first from the left, to see how it is foreshortened, flat on the rock; then from the right, to see the curve of dress up the limb:—think of the difference between this and the feet of poor St. George Sartor of St. Mark's, pointed down all their length. Finally, see how studious the whole thing is of beauty in every part,—how it expects *you* also to be studious. Trace the rich tresses of the princess's hair, wrought where the figure melts into shadow;—the sharp edges of the dragon's mail, slipping over each other as he wrings neck and coils tail;—nay, what decorative ordering and symmetry is even in the roughness of the ground and rock! And lastly, see how the whole piece of work, to the simplest frame of it, must be by the sculptor's own hand: see how he breaks the line of his panel molding with the princess's hair, with St. George's helmet, with the rough ground itself at the base;—the entire tablet varied to its utmost edge, delighted in and ennobled to its extreme limit of substance.

Here, then, as I said, is the top of Venetian sculpture-art. Was there no going beyond this, think you?

Assuredly, much beyond this the Venetian could have gone, had he gone straight forward. But at this point he became perverse, and there is one sign of evil in this piece, which you must carefully discern.

51. In the two earlier sculptures, of the sheep, and the throned St. George, the artist never meant to say that twelve sheep ever stood in two such rows, and were the twelve apostles; nor that St. George ever sat in that manner in a splendid chair. But he entirely believed in the facts of the lives of the apostles and saints, symbolized by such figuring.

But the fifteenth century sculptor *does*, partly, mean to assert that St. George did in that manner kill a dragon: does

not clearly know whether he did or not; does not care very much whether he did or not;—thinks it will be very nice if, at any rate, people believe that he did;—but is more bent, in the heart of him, on making a pretty bas-relief than on anything else.

Half-way to infidelity, the fine gentleman is, with all his dainty chiseling. We will see, on those terms, what, in another century, this fine chiseling comes to.

So now walk on, down the Merceria di San Salvador. Presently, if it is morning, and the sky clear, you will see, at the end of the narrow little street, the brick apse of St. Saviour's, warm against the blue; and, if you stand close to the right, a solemn piece of old Venetian wall and window on the opposite side of the calle, which you might pass under twenty times without seeing, if set on the study of shops only. Then you must turn to the right; perforce,—to the left again; and now to the left, once more; and you are in the little piazza of St. Salvador, with a building in front of you, now occupied as a furniture store, which you will please look at with attention.

52. It reminds you of many things at home, I suppose?—has a respectable, old-fashioned, city-of-London look about it;—something of Greenwich Hospital, of Temple Bar, of St. Paul's, of Charles the Second and the Constitution, and the Lord Mayor and Mr. Bumble? Truly English, in many respects, this solidly rich front of Ionic pillars, with the four angels on the top, rapturously directing your attention, by the gracefulest gesticulation, to the higher figure in the center!

You have advanced another hundred and fifty years, and are in mid seventeenth century. Here is the 'Progresso' of Venice, exhibited to you, in consequence of her wealth, and gay life and advance in anatomical and other sciences.

Of which, note first, the display of her knowledge of angelic anatomy. Sabra, on the rock, just showed her foot beneath her robe, and that only because she was drawing back, frightened; but, here, every angel has his petticoats cut up to

his thighs; he is not sufficiently sacred or sublime unless you see his legs so high.

Secondly, you see how expressive are their attitudes,—“What a wonderful personage is this we have got in the middle of us!”

53. That is Raphael's art of the finest. Raphael, by this time, had taught the connoisseurs of Europe that whenever you admire anybody, you open your mouth and eyes wide; when you wish to show him to somebody else, you point at him vigorously with one arm, and wave the somebody else on with the other; when you have nothing to do of that sort, you stand on one leg and hold up the other in a graceful line;—these are the methods of true dramatic expression. Your drapery, meanwhile, is to be arranged in “sublime masses,” and is not to be suggestive of any particular stuff!

If you study the drapery of these four angels thoroughly, you can scarcely fail of knowing, henceforward, what a bad drapery is, to the end of time. Here is drapery supremely, exquisitely bad; it is impossible, by any contrivance, to get it worse. Merely clumsy, ill-cut clothing, you may see any day; but there is skill enough in this to make it exemplarily execrable. That flabby flutter, wrinkled swelling, and puffed pomp of infinite disorder;—the only action of it, being blown up, and away; the only calm of it, collapse;—the resolution of every miserable fold not to fall, if it can help it, into any natural line,—the running of every lump of it into the next, as dough sticks to dough—remaining, not less, evermore incapable of any harmony or following of each other's lead or way;—and the total rejection of all notion of beauty or use in the stuff itself. It is stuff without thickness, without fineness, without warmth, without coolness, without luster, without texture; not silk,—not linen,—not woollen;—something that wrings, and wrinkles, and gets between legs,—that is all. Worse drapery than this, you cannot see in mortal investiture.

54. Nor worse *want* of drapery, neither—for the legs are

as ungraceful as the robes that discover them; and the breast of the central figure, whom all the angels admire, is packed under its corselet like a hamper of tomato apples.

To this type the Venetians have now brought their symbol of divine life in man. For this is also—St. Theodore! And the respectable building below, in the Bumble Style, is the last effort of his school of Venetian gentlemen to house themselves respectably. With Ionic capitals, bare-legged angels, and the Dragon, now square-headed and blunt-nosed, they thus contrive their last club-house, and prepare, for resuscitated Italy, in continued 'Progresso,' a stately furniture store. Here you may buy cruciform stools, indeed! and patent oilcloths, and other supports of your Venetian worshipful dignity, to heart's content. Here is your God's Gift to the nineteenth century. "Deposito mobili nazionali ed esteri; quadri: libri antichi e moderni, ed oggetti diversi."

Nevertheless, through all this decline in power and idea, there is yet, let us note finally, some wreck of Christian intention, some feeble coloring of Christian faith. A saint is still held to be an admirable person; he is practically still the patron of your fashionable club-house, where you meet to offer him periodical prayer and alms. This architecture is, seriously, the best you can think of; those angels are handsome, according to your notions of personality; their attitudes really are such as you suppose to be indicative of celestial rapture,—their features, of celestial disposition.

55. We will see what change another fifty years will bring about in these faded feelings of Venetian soul.

The little calle on your right, as you front St. Theodore, will bring you straight to the quay below the Rialto, where your gondola shall be waiting, to take you as far as the bridge over the Cannareggio under the Palazzo Labia. Stay your gondola before passing under it, and look carefully at the sculptured ornaments of the arch, and then at the correspondent ones on the other side.

In these you see the last manner of sculpture, executed by Venetian artists, according to the mind of Venice, for her

own pride and pleasure. Much she has done since, of art-work, to sell to strangers, executed as she thinks will please the *stranger* best. But of art produced for *her own* joy and in her own honor, this is a chosen example of the last!

Not representing saintly persons, you see; nor angels in attitudes of admiration. Quite other personages than angelic, and with expressions of anything rather than affection or respect for aught of good, in earth or heaven. Such were the last imaginations of her polluted heart, before death. She had it no more in her power to conceive any other. "Behold thy last gods,"—the Fates compel her thus to gaze, and perish.

56. This last stage of her intellectual death precedes her political one by about a century; during the last half of which, however, she did little more than lay foundations of walls which she could not complete. Virtually, we may close her national history with the seventeenth century; we shall not ourselves follow it even so far.

I have shown you, to-day, pieces of her art-work by which you may easily remember its cardinal divisions.

You saw first the work of her Greek masters, under whom she learned both her faith and art.

Secondly, the beginning of her own childish efforts, in the St. George enthroned.

Thirdly, the culmination of her skill in the St. George combatant.

Fourthly, the languor of her faith and art power, under the advance of her luxury, in the hypocrisy of St. Theodore's Scuola, now a furniture warehouse.

Lastly, her dotage before shameful death.

In the next chapter I will mark, by their natural limits, the epochs of her political history, which correspond to these conditions of her knowledge, hope, and imagination.

57. But as you return home, and again pass before the porches of St. Mark's, I may as well say at once what I can of these six bas-reliefs between them.

On the sides of the great central arch are St. George and

St. Demetrius, so inscribed in Latin. Between the next lateral porches, the Virgin and Archangel Gabriel, so inscribed,—the Archangel in Latin, the “Mother of God” in Greek.

And between these and the outer porches, uninscribed, two of the labors of Hercules. I am much doubtful concerning these, myself,—do not know their manner of sculpture, nor understand their meaning. They are fine work; the Venetian antiquaries say, very early, (sixth century); types, it may be, of physical human power prevailing over wild nature; the war of the world before Christ.

Then the Madonna and angel of Annunciation express the Advent.

Then the two Christian Warrior Saints express the heart of Venice in her armies.

There is no doubt, therefore, of the purposeful choosing and placing of these bas-reliefs. Where the outer ones were brought from, I know not; the four inner ones, I think, are all contemporary, and carved for their place by the Venetian scholars of the Greek schools, in late twelfth or early thirteenth century.

58. My special reason for assigning this origin to them is the manner of the foliage under the feet of the Gabriel, in which is the origin of all the early foliage in the Gothic of Venice. This bas-relief, however, appears to be by a better master than the others—perhaps later; and is of extreme beauty.

Of the ruder St. George, and successive sculptures of Evangelists on the north side, I cannot yet speak with decision; nor would you, until we have followed the story of Venice farther, probably care to hear.

CHAPTER V.

THE SHADOW ON THE DIAL.

59. THE history of Venice, then, divides itself into four quite distinct periods.

I. The first, in which the fugitives from many cities on the mainland, gathered themselves into one nation, dependent for existence on its labor upon the sea; and which develops itself, by that labor, into a race distinct in temper from all the other families of Christendom. This process of growth and mental formation is necessarily a long one, the result being so great. It takes, roughly, seven hundred years—from the fifth to the eleventh century, both inclusive. Accurately, from the Annunciation day, March 25th, 421, to the day of St. Nicholas, December 6th, 1100.

At the close of this epoch Venice had fully learned Christianity from the Greeks, chivalry from the Normans, and the laws of human life and toil from the ocean. Prudently and nobly proud, she stood, a helpful and wise princess, highest in council and mightiest in deed, among the knightly powers of the world.

60. II. The second period is that of her great deeds in war, and of the establishment of her reign in justice and truth, (the best at least that she knew of either) over, nominally, the fourth part of the former Roman Empire. It includes the whole of the twelfth and thirteenth centuries, and is chiefly characterized by the religious passion of the Crusades. It lasts, in accurate terms, from December 6th, 1100, to February 28th, 1297; but as the event of that day was not confirmed till three years afterwards, we get the fortunately precise terminal date of 1301.

III. The third period is that of religious meditation, as

distinct, though not withdrawn from, religious action. It is marked by the establishment of schools of kindly civil order, and by its endeavors to express, in word and picture, the thoughts which until then had wrought in silence. The entire body of her noble art-work belongs to this time. It includes the fourteenth and fifteenth centuries, and twenty years more: from 1301* to 1520.

IV. The fourth period is that of the luxurious use, and display, of the powers attained by the labor and meditation of former times, but now applied without either labor or meditation:—religion, art, and literature, having become things of custom, and “costume.” It spends, in eighty years, the fruits of the toil of a thousand, and terminates, strictly, with the death of Tintoret, in 1594; we will say 1600.

61. From that day the remainder of the record of Venice is only the diary of expiring delirium, and, by those who love her, will be traced no farther. But while you are here within her walls I will endeavor to interpret clearly to you the legends on them, in which she has herself related the passions of her Four Ages.

And see how easily they are to be numbered and remembered. Twelve hundred years in all; divided—if, broadly, we call the third period two centuries, and the fourth, one,—in diminishing proportion, 7, 2, 2, 1: it is like the spiral of a shell, reversed.

I have in this first sketch of them distinguished these four ages by the changes in the chief element of every nation's mind—its religion, with the consequent results upon its art. But you see I have made no mention whatever of all that common historians think it their primal business to discourse of,—policy, government, commercial prosperity! One of my dates however is determined by a crisis of internal policy; and I will at least note, as the material instrumentation of the spiritual song, the metamorphoses of state-order which

* Compare ‘Stones of Venice’ (complete edit.), vol. ii., p. 291.

accompanied, in each transition, the new nativities of the state's heart.

62. I. During the first period, which completes the binding of many tribes into one, and the softening of savage faith into intelligent Christianity, we see the gradual establishment of a more and more distinctly virtuous monarchic authority; continually disputed, and often abused, but purified by every reign into stricter duty, and obeyed by every generation with more sacred regard. At the close of this epoch, the helpful presence of God, and the leading powers of the standard-bearer Saint, and scepter-bearing King, are vitally believed; reverently, and to the death, obeyed. And, in the eleventh century, the Palace of the Duke and lawgiver of the people, and his Chapel, enshrining the body of St. Mark, stand, bright with marble and gold, side by side.

II. In the second period, that of active Christian warfare, there separates itself from the mass of the people, chiefly by pre-eminence in knightly achievement, and persistence in patriotic virtue,—but also, by the intellectual training received in the conduct of great foreign enterprise, and maintenance of legislation among strange people,—an order of aristocracy, raised both in wisdom and valor greatly above the average level of the multitude, and gradually joining to the traditions of Patrician Rome, the domestic refinements, and imaginative sanctities, of the northern and Frankish chivalry, whose chiefs were their battle comrades. At the close of the epoch, this more sternly educated class determines to assume authority in the government of the State, unswayed by the humor, and unhindered by the ignorance, of the lower classes of the people; and the year which I have assigned for the accurate close of the second period is that of the great division between nobles and plebeians, called by the Venetians the “Closing of the Council,”—the restriction, that is to say, of the powers of the Senate to the lineal aristocracy.

63. III. The third period shows us the advance of this now separate body of Venetian gentlemen in such thought

and passion as the privilege of their position admitted, or its temptations provoked. The gradually increasing knowledge of literature, culminating at last in the discovery of printing, and revival of classic formulæ of method, modified by reflection, or dimmed by disbelief, the frank Christian faith of earlier ages; and social position independent of military prowess, developed at once the ingenuity, frivolity, and vanity of the scholar, with the avarice and cunning of the merchant.

Protected and encouraged by a senate thus composed, distinct companies of craftsmen, wholly of the people, gathered into vowed fraternities of social order; and, retaining the illiterate sincerities of their religion, labored in unambitious peace, under the orders of the philosophic aristocracy;—built for them their great palaces, and overlaid their walls, within and without, with gold and purple of Tyre, precious now in Venetian hands as the colors of heaven more than of the sea. By the hand of one of them, the picture of Venice, with her nobles in her streets, at the end of this epoch, is preserved to you as yet, and I trust will be, by the kind fates, preserved datelessly.

64. IV. In the fourth period, the discovery of printing having confused literature into vociferation, and the delicate skill of the craftsman having provoked splendor into lasciviousness, the jubilant and coruscant passions of the nobles, stately yet in the forms of religion, but scornful of her discipline, exhausted, in their own false honor, at once the treasures of Venice and her skill; reduced at last her people to misery, and her policy to shame, and smoothed for themselves the downward way to the abdication of their might for evermore.

Now these two histories of the religion and policy of Venice are only intense abstracts of the same course of thought and events in every nation of Europe. Throughout the whole of Christendom, the two stories in like manner proceed together. The acceptance of Christianity—the practice of it—the abandonment of it—and moral ruin. The

development of kingly authority,—the obedience to it—the corruption of it—and social ruin. But there is no evidence that the first of these courses of national fate is vitally connected with the second. That infidel kings may be just, and Christian ones corrupt, was the first lesson Venice learned when she began to be a scholar.

65. And observe there are three quite distinct conditions of feeling and assumptions of theory in which we may approach this matter. The first, that of our numerous cockney friends,—that the dukes of Venice were mostly hypocrites, and if not, fools; that their pious zeal was merely such a cloak for their commercial appetite as modern church-going is for modern swindling; or else a pitiable hallucination and puerility:—that really the attention of the supreme cockney mind would be wasted on such by-gone absurdities, and that out of mere respect for the common-sense of monkey-born-and-bred humanity, the less we say of them the better.

The second condition of feeling is, in its full confession, a very rare one;—that of true respect for the Christian faith, and sympathy with the passions and imaginations it excited, while yet in security of modern enlightenment, the observer regards the faith itself only as an exquisite dream of mortal childhood, and the acts of its votaries as a beautifully deceived heroism of vain hope.

This theory of the splendid mendacity of Heaven, and majestic somnambulism of man, I have only known to be held in the sincere depth of its discomfort, by one of my wisest and dearest friends, under the pressure of uncomprehended sorrow in his own personal experience. But to some extent it confuses or undermines the thoughts of nearly all men who have been interested in the material investigations of recent physical science, while retaining yet imagination and understanding enough to enter into the heart of the religious and creative ages.

66. And it necessarily takes possession of the spirit of such men chiefly at the times of personal sorrow, which teach even to the wisest, the hollowness of their best trust, and the vanity

of their dearest visions; and when the epitaph of all human virtue, and sum of human peace, seem to be written in the lowly argument,—

“ We are such stuff
As dreams are made of ; and our little life
Is rounded with a sleep.”

The third, the only modest, and therefore the only rational, theory, is, that we are all and always, in these as in former ages, deceived by our own guilty passions, blinded by our own obstinate wills, and misled by the insolence and fantasy of our ungoverned thoughts; but that there is verily a Divinity in nature which has shaped the rough hewn deeds of our weak human effort, and revealed itself in rays of broken, but of eternal light, to the souls which have desired to see the day of the Son of Man.

By the more than miraculous fatality which has been hitherto permitted to rule the course of the kingdoms of this world, the men who are capable of accepting such faith, are rarely able to read the history of nations by its interpretation. They nearly all belong to some one of the passionately egoistic sects of Christianity; and are miserably perverted into the missionary service of their own schism; eager only, in the records of the past, to gather evidence to the advantage of their native persuasion, and to the disgrace of all opponent forms of similar heresy; or, that is to say, in every case, of nine-tenths of the religion of this world.

67. With no less thankfulness for the lesson, than shame for what it showed, I have myself been forced to recognize the degree in which all my early work on Venetian history was paralyzed by this petulance of sectarian egotism; and it is among the chief advantages I possess for the task now undertaken in my closing years, that there are few of the errors against which I have to warn my readers, into which I have not myself at some time fallen. Of which errors, the chief, and cause of all the rest, is the leaning on our own understanding; the thought that we can measure the hearts of

our brethren, and judge of the ways of God. Of the hearts of men, noble, yet "deceitful above all things, who can know them?"—that infinitely perverted scripture is yet infinitely true. And for the ways of God! Oh, my good and gentle reader, how much otherwise would not you and I have made this world?

CHAPTER VI.

RED AND WHITE CLOUDS.

68. Not, therefore, to lean on our own sense, but in all the strength it has, to use it; not to be captives to our private thoughts, but to dwell in them, without wandering, until, out of the chambers of our own hearts we begin to conceive what labyrinth is in those of others,—thus we have to prepare ourselves, good reader, for the reading of any history.

If but we may at last succeed in reading a little of our own, and discerning what scene of the world's drama we are set to play in,—drama whose tenor, tragic or other, seemed of old to rest with so few actors; but now, with this pantomimic mob upon the stage, can you make out any of the story?—prove, even in your own heart, how much you believe that there is any Playwright behind the scenes?

69. Such a wild dream as it is!—nay, as it always has been, except in momentary fits of consciousness, and instants of startled spirit,—perceptive of heaven. For many centuries the Knights of Christendom wore their religion gay as their crest, familiar as their gauntlet, shook it high in the summer air, hurled it fiercely in other people's faces, grasped their spear the firmer for it, sat their horses the prouder; but it never entered into their minds for an instant to ask the meaning of it! 'Forgive us our sins':—by all means,—yes, and the next garrison that holds out a day longer than is convenient to us, hang them every man to his battlement. 'Give us this day our daily bread,'—yes, and our neighbor's also, if we have any luck. 'Our Lady and the Saints!' Is there any infidel dog that doubts of them?—in God's name, boot and spur—and let us have the head off him. It went

on so, frankly and bravely, to the twelfth century, at the earliest; when men begin to think in a serious manner; more or less of gentle manners and domestic comfort being also then conceivable and attainable. Rosamond is not any more asked to drink out of her father's skull. Rooms begin to be matted and wainscoted; shops to hold store of marvelous foreign wares; knights and ladies learn to spell, and to read, with pleasure; music is everywhere;—Death, also. Much to enjoy—much to learn, and to endure—with Death always at the gates. “If war fail thee in thine own country, get thee with haste into another,” says the faithful old French knight to the boy-chevalier, in early fourteenth century days.

70. No country stays more than two centuries in this intermediate phase between Faith and Reason. In France it lasted from about 1150 to 1350; in England, 1200 to 1400; in Venice, 1300 to 1500. The course of it is always in the gradual development of Christianity,—till her yoke gets at once too aerial, and too straight, for the mob, who break through it at last as if it were so much gossamer; and at the same fatal time, wealth and luxury, with the vanity of corrupt learning, foul the faith of the upper classes, who now begin to wear their Christianity, not tossed for a crest high over the armor, but stuck as a plaster over their sores, inside of their clothes. Then comes printing, and universal gabble of fools;—gunpowder, and the end of all the noble methods of war—trade, and universal swindling,—wealth, and universal gambling,—idleness, and universal halotry; and so at last—Modern Science and Political Economy; and the reign of St. Petroleum instead of St. Peter. Out of which God only knows what is to come next; but He *does* know, whatever the Jew swindlers and apothecaries' 'prentices think about it.

Meantime, with what remainder of belief in Christ may be left in us; and helping that remnant with all the power we have of imagining what Christianity was, to people who, without understanding its claims or its meaning, did not doubt for an instant its statements of fact, and used the whole

of their childish imagination to realize the acts of their Saviour's life, and the presence of His angels, let us draw near to the first sandy thresholds of the Venetian's home.

71. Before you read any of the so-called historical events of the first period, I want you to have some notion of their scene. You will hear of Tribunes—Consuls—Doges:—but what sort of tribes were they tribunes of? what sort of nation were they dukes of? You will hear of brave naval battle,—victory over sons of Emperors: what manner of people were they, then, whose swords lighten thus brightly in the dawn of chivalry?

For the whole of her first seven hundred years of work and war, Venice was in great part a wooden town; the houses of the noble mainland families being for long years chiefly at Heraclæa, and on other islands; nor they magnificent, but farm-villas mostly, of which, and their farming, more presently. Far too much stress has been generally laid on the fishing and salt-works of early Venice, as if they were her only businesses; nevertheless at least you may be sure of this much, that for seven hundred years Venice had more likeness in her to old Yarmouth than to new Pall Mall: and that you might come to shrewder guess of what she and her people were like, by living for a year or two lovingly among the herring-catchers of Yarmouth Roads, or the boatmen of Deal or Boscastle, than by reading any lengths of eloquent history.

72. But you are to know also, and remember always, that this amphibious city—this Phocæa, or sea-dog of towns,—looking with soft human eyes at you from the sand, Proteus himself latent in the salt-smelling skin of her,—had fields, and plots of garden here and there; and, far and near, sweet woods of Calypso, graceful with quivering sprays, for woof of nests—gaunt with forked limbs for ribs of ships; had good milk and butter from familiarly couchant cows; thickets wherein familiar birds could sing;—and finally was observant of clouds and sky, as pleasant and useful phenomena. And she had at due distances among her simple dwellings, stately churches of marble.

These things you may know, if you will, from the following "quite ridiculous" tradition, which, ridiculous as it may be, I will beg you for once to read, since the Doge Andrea Dandolo wrote it for you, with the attention due to the address of a Venetian gentleman, and a King.*

73. "As head and bishop of the islands, the Bishop Magnus of Altinum went from place to place to give them comfort, saying that they ought to thank God for having escaped from these barbarian cruelties. And there appeared to him St. Peter, ordering him that in the head of Venice, or truly of the city of Rivoalto, where he should find oxen and sheep feeding, he was to build a church under his (St. Peter's) name. And thus he did; building St. Peter's Church in the island of Olivolo, where at present is the seat and cathedral church of Venice.

"Afterwards appeared to him the Angel Raphael, committing it to him, that at another place, where he should find a number of birds together, he should build him a church: and so he did, which is the church of the Angel Raphael in Dorsoduro.

"Afterwards appeared to him Messer Jesus Christ our Lord, and committed to him that in the midst of the city he should build a church, in the place, above which he should see a red cloud rest: and so he did; and it is San Salvador.

"Afterwards appeared to him the most holy Mary the Virgin, very beautiful; and commanded him that where he should see a white cloud rest, he should build a church: which is the church of St. Mary the Beautiful.

"Yet still appeared to him St. John the Baptist, commanding that he should build two churches, one near the

* A more graceful form of this legend has been translated with feeling and care by the Countess Isobel Cholmley, in Bermani, from a MS. in her possession, copied, I believe, from one of the tenth century. But I take the form in which it was written by Andrea Dandolo, that the reader may have more direct associations with the beautiful image of the Doge on his tomb in the Baptistery.

other,—the one to be in his name, and the other in the name of his father. Which he did, and they are San Giovanni in Bragola, and San Zaccaria.

“Then appeared to him the apostles of Christ, wishing, they also, to have a church in this new city; and they committed it to him that where he should see twelve cranes in a company, there he should build it. Lastly appeared to him blessed Virgin Giustina, and ordered him that where he should find vines bearing fresh fruit, there he should build her a church.”

74. Now this legend is quite one of the most precious things in the story of Venice: preserved for us in this form at the end of the fourteenth century; by one of her most highly educated gentlemen, it shows the very heart of her religious and domestic power, and assures for us, with other evidence, these following facts.

First; that a certain measure of pastoral home-life was mingled with Venice's training of her sailors;—evidence whereof remains to this day, in the unfailing ‘Campo’ round every church; the church ‘meadow’—not church-‘yard.’ It happened to me, once in my life, to go to church in a state of very great happiness and peace of mind; and this in a very small and secluded country church. And Fors would have it that I should get a seat in the chancel; and the day was sunny, and the little side chancel-door was open opposite into, what I hope was a field. I saw no graves in it; but in the sunshine, sheep feeding. And I never was at so divine a church service before, nor have been since. If you will read the opening of Wordsworth's ‘White Doe of Rylstone,’ and can enjoy it, you may learn from it what the look of an old Venetian church would be, with its surrounding field. St. Mark's Place was only the meadow of St. Theodore's church, in those days.

75. Next—you observe the care and watching of animals. That is still a love in the heart of Venice. One of the chief little worries to me in my work here, is that I walk faster

than the pigeons are used to have people walk; and am continually like to tread on them; and see story in Fors, March of this year, of the gondolier and his dog. Nay, though the other day, I was greatly tormented at the public gardens, in the early morning, when I had counted on a quiet walk, by a cluster of boys who were chasing the first twittering birds of the spring from bush to bush, and throwing sand at them, with wild shouts and whistles, they were not doing it, as I at first thought, in mere mischief, but with hope of getting a penny or two to gamble with, if they could clog the poor little creatures' wings enough to bring one down—"Canta bene, signor, quell' ucellino." Such the nineteenth century's reward of Song. Meantime, among the silvery gleams of islet tower on the lagoon horizon, beyond Mazorbo—a white ray flashed from the place where St. Francis preached to the Birds.

76. Then thirdly—note that curious observance of the color of clouds. That is gone, indeed; and no Venetian, or Italian, or Frenchman, or Englishman, is likely to know or care, more, whether any God-given cloud is white or red; the primal effort of his entire human existence being now to vomit out the biggest black one he can pollute the heavens with. But, in their rough way, there was yet a perception in the old fishermen's eyes of the difference between white 'nebbia' on the morning sea, and red clouds in the evening twilight. And the Stella Maris comes in the sea Cloud;—Leucothea: but the Son of Man on the jasper throne.

Thus much of the aspect, and the thoughts of earliest Venice, we may gather from one tradition, carefully read. What historical evidence exists to confirm the gathering, you shall see in a little while; meantime—such being the scene of the opening drama,—we must next consider somewhat of the character of the actors. For though what manner of houses they had, has been too little known, what manner of men they were, has not at all been known, or even the reverse of known,—belied.

CHAPTER VII.

DIVINE RIGHT.

77. ARE you impatient with me? and do you wish me, ceasing preamble, to begin—‘ In the year this, happened that,’ and set you down a page of dates and Doges to be learned off by rote? You must be denied such delight a little while longer. If I begin dividing this first period, at present, (and it has very distinctly articulated joints of its own,) we should get confused between the subdivided and the great epochs. I must keep your thoughts to the Three Times, till we know them clearly; and in this chapter I am only going to tell you the story of a single Doge of the First Time, and gather what we can out of it.

Only since we have been hitherto dwelling on the soft and religiously sentimental parts of early Venetian character, it is needful that I should ask you to notice one condition in their government of a quite contrary nature, which historians usually pass by as if it were of no consequence; namely, that during this first period, five Doges, after being deposed, had their eyes put out.

Pulled out, say some writers, and I think with evidence reaching down as far as the endurance on our English stage of the blinding of Gloster in King Lear.

But at all events the Dukes of Venice, whom her people thought to have failed in their duty, were in that manner incapacitated from reigning more.

78. An Eastern custom, as we know: grave in judgment; in the perfectness of it, joined with infliction of grievous Sight, before the infliction of grievous blindness; that so the last memory of this world’s light might remain a grief.

“And they slew the sons of Zedekiah before his eyes; and put out the eyes of Zedekiah.”

Custom I know not how ancient. The sons of Eliab, when Judah was young in her Exodus, like Venice, appealed to it in their fury: “Is it a small thing that thou hast brought us up out of a land that floweth with milk and honey, except thou make thyself altogether a Prince over us; wilt thou put out the eyes of these men?”

The more wild Western races of Christianity, early Irish and the like,—Norman even, in the pirate times,—inflict the penalty with reckless scorn; * but Venice deliberately, as was her constant way; such her practical law against leaders whom she had found spiritually blind: “These, at least, shall guide no more.”

Very savage! monstrous! if you will; whether it be not a worse savageness deliberately to follow leaders *without* sight, may be debatable.

79. The Doge whose history I am going to tell you was the last of deposed Kings in the first epoch. Not blinded, he, as far as I read: but permitted, I trust peaceably, to become a monk; Venice owing to him much that has been the delight of her own and other people’s eyes, ever since. Respecting the occasion of his dethronement, a story remains, however, very notably in connection with this manner of punishment.

Venice, throughout this first period in close alliance with the Greeks, sent her Doge, in the year 1082, with a “valid

* Or sometimes pitifully: “Olaf was by no means an unmerciful man,—much the reverse where he saw good cause. There was a wicked old King Rærik, for example, one of those five kinglets whom, with their bits of armaments, Olaf, by stratagem, had surrounded one night, and at once bagged and subjected when morning rose, all of them consenting;—all of them except this Rærik, whom Olaf, as the readiest sure course, took home with him; blinded, and kept in his own house, finding there was no alternative but that or death to the obstinate old dog, who was a kind of distant cousin withal, and could not conscientiously be killed”—(Carlyle,—‘Early Kings of Norway,’ p. 131)—conscience, and kin-ship, or “kindliness,” declining somewhat in the Norman heart afterwards.

fleet, terrible in its most ordered disposition," to defend the Emperor Alexis against the Normans, led by the greatest of all Western captains, Guiscard.

The Doge defeated him in naval battle once; and, on the third day after, once again, and so conclusively, that, thinking the debate ended, he sent his lightest ships home, and anchored on the Albanian coast with the rest, as having done his work.

80. But Guiscard, otherwise minded on that matter, with the remains of his fleet,—and his Norman temper at hottest—attacked him for the third time. The Greek allied ships fled. The Venetian ones, partly disabled, had no advantage in their seamanship: * question only remained, after the battle, how the Venetians should bear themselves as prisoners. Guiscard put out the eyes of some; then, with such penalty impending over the rest, demanded that they should make peace with the Normans, and fight for the Greek Emperor no more.

But the Venetians answered, "Know thou, Duke Robert, that although also *we should see our wives and children slain*, we will not deny our covenants with the autocrat Alexis; neither will we cease to help him, and to fight for him with our whole hearts."

The Norman chief sent them home unransomed.

There is a highwater mark for you of the waves of Venetian and Western chivalry in the eleventh century. A very notable scene; the northern leader, without rival the greatest soldier of the sea whom our rocks and icebergs bred: of the Venetian one, and his people, we will now try to learn the character more perfectly,—for all this took place towards the close of the Doge Selvo's life. You shall next hear what I can glean of the former course of it.

81. In the year 1053, the Abbey of St. Nicholas, the protector of mariners, had been built at the entrance of the port of Venice (where, north of the bathing establishment, you

* Their crews had eaten all their stores, and their ships were flying light, and would not steer well.

now see the little church of St. Nicholas of the Lido); the Doge Domenico Contarini, the Patriarch of Grado, and the Bishop of Venice, chiefly finding the funds for such edifice.

When the Doge Contarini died, the entire multitude of the people of Venice came in armed boats to the Lido, and the Bishop of Venice, and the monks of the new Abbey of St. Nicholas, joined with them in prayer,—the monks in their church, and the people on the shore and in their boats, that God would avert all dangers from their country, and grant to them such a king as should be worthy to reign over it. And as they prayed, with one accord, suddenly there rose up among the multitude the cry, “Domenico Selvo, we will, and we approve,” whom a crowd of the nobles brought instantly forward thereupon, and raised him on their own shoulders and carried him to his boat; into which when he had entered, he put off his shoes from his feet, that he might in all humility approach the church of St. Mark.

82. And while the boats began to row from the island towards Venice, the monk who saw this, and tells us of it, himself began to sing the *Te Deum*. All around, the voices of the people took up the hymn, following it with the *Kyrie Eleison*, with such litany keeping time to their oars in the bright noonday, and rejoicing on their native sea; all the towers of the city answering with triumph peals as they drew nearer. They brought their Doge to the Field of St. Mark, and carried him again on their shoulders to the porch of the church; there, entering barefoot, with songs of praise to God around him—“such that it seemed as if the vaults must fall,”—he prostrated himself on the earth, and gave thanks to God and St. Mark, and uttered such vow as was in his heart to offer before them. Rising, he received at the altar the Venetian scepter, and thence entering the Ducal Palace received there the oath of fealty from the people.*

* This account of the election of the Doge Selvo is given by Sansovino, (*Venetia descritta*, Lib. XI. 40; Venice, 1663, p. 477)—saying at the close of it, simply, “Thus writes Domenico Rino, who was his chaplain, and who was present at what I have related.” Sansovino

83. Benighted wretches, all of them, you think, prince and people alike, don't you? They are pleasanter creatures to see, at any rate, than any you will see in St. Mark's field, now-a-days. If the pretty ladies, indeed, would walk in the porch like the Doge, barefoot, instead of in boots cloven in two like the devil's hoofs, something might be said for them; but though they will recklessly drag their dresses through it, I suppose they would scarcely care to walk, like Greek maids, in that mixed mess of dust and spittle with which modern progressive Venice anoints her marble pavement. Pleasanter to look at, I can assure you, this multitude delighting in their God and their Duke, than these, who have no Paradise to trust to with better gifts for them than a gazette, cigar, and pack of cards; and no better governor than their own wills. You will see no especially happy or wise faces produced in St. Mark's Place under these conditions.

84. Nevertheless, the next means that the Doge Selvo took for the pleasure of his people on his coronation day savored somewhat of modern republican principles. He gave them "the pillage of his palace"—no less! Whatever they could lay their hands on, these faithful ones, they might carry away with them, with the Doge's blessing. At evening he laid down the uneasy crowned head of him to rest in mere dismantled walls; hands dexterous in the practices of profitable

seems therefore to have seen Rino's manuscript: but Romanin, without referring to Sansovino, gives the relation as if he had seen the MS. himself, but misprints the chronicler's name as Domenico Tino, causing no little trouble to my kind friend Mr. Lorenzi and me, in hunting at St. Mark's and the Correr Museum for the unheard of chronicle, till Mr. Lorenzi traced the passage. And since Sansovino's time nothing has been seen, or further said of the Rino Chronicle.—See Foscarini, "della letteratura Veneziana," Lib. II.

Romanin has also amplified and inferred somewhat beyond Sansovino's words. The dilapidation of the palace furniture, especially, is not attributed by Sansovino to festive pillage, but to neglect after Contarini's death. Unquestionably however the custom alluded to in the text existed from very early times.

warfare having bestirred themselves all the day. Next morning the first Ducal public orders were necessarily to the upholsterers and furnishers for readornment of the palacerooms. Not by any special grace this, or benevolent novelty of idea in the good Doge, but a received custom, hitherto; sacred enough, if one understands it,—a kind of mythical putting off all the burdens of one's former wealth, and entering barefoot, bare-body, bare-soul, into this one duty of Guide and Lord, lightened thus of all regard for his own affairs or properties. "Take all I have, from henceforth; the corporal vestments of me, and all that is in their pockets, I give you to-day; the stripped life of me, is yours for ever." Such, virtually, the King's vow.

85. Frankest largesse thus cast to his electors; (modern bribery is quite as costly and not half so merry,) the Doge set himself to refit, not his own palace merely, but much more, God's house; for this prince is one who has at once David's piety, and soldiership, and Solomon's love of fine things; a perfect man, as I read him, capable at once and gentle,—religious, and joyful,—in the extreme: as a warrior the match of Robert Guiscard, who, you will find, was the soldier *par excellence* of thê middle ages, but not his match in the wild-cat cunning:—both of them alike in knightly-honor, word being given. As a soldier, I say, the match of Guiscard, but not holding war for the pastime of life, still less for the duty of Venice or her king. Peaceful affairs;—the justice and the joy of human deeds,—in these he sought his power, by principle and passion equally; religious, as we have seen; royal, as we shall presently see; commercial, as we shall finally see; a perfect man, recognized as such with concurrent applause of people and submission of noble: "Domenico Selvo, we will, and we approve."

No flaw in him, then? Nay; "how bad the best of us!" say *Punch*,* and the modern evangelical. Flaw he had, such

* Epitaph on the Bishop of Winchester—(Wilberforce); see Fors XLII. p. 125.

as wisest men are not unliable to, with the strongest—Solomon, Samson, Hercules, Merlin the Magician.

86. Liking pretty things, how could he help liking pretty ladies? He married a Greek maid, who came with new and strange light on Venetian eyes, and left wild fame of herself: how, every morning, she sent her handmaidens to gather the dew for her to wash with, waters of earth being not pure enough. So, through lapse of fifteen hundred years, descended into her Greek heart that worship in the Temple of the Dew.

Of this queen's extreme luxury and the miraculousness of it in the eyes of simple Venice, many traditions are current among later historians; which, nevertheless, I find resolve themselves, on closer inquiry, into an appalled record of the fact that she would actually not eat her meat with her fingers, but applied it to her mouth with "certain two-pronged instruments,"*—(of gold, indeed, but the luxurious sin, in Venetian eyes, was evidently not in the metal, but the fork;) and that she indulged herself greatly in the use of perfumes: especially about her bed, for which whether to praise her, as one would an English housewife for sheets laid up in lavender, or to cry haro upon her, as the "stranger who flattereth,"† I know not, until I know better the reason of the creation of perfume itself, and of its use in Eastern religion and delight—"All thy garments smell of myrrh, aloes, and cassia, out of the ivory palaces whereby thou hast made me glad"—fading and corrupting at last into the incense of the mass, and the *extrait de Millefleurs* of Bond Street. What I do know is, that there was no more sacred sight to me, in ancient Florence, than the Spezieria of the Monks of Santa Maria Novella, with its precious vials of sweet odors, each illuminated with the little picture of the flower from which it had truly been distilled—and yet, that, in its loaded

* "Cibos digitis non tangebatur, sed quibusdam fuscinulis aureis et bidentibus suo ori applicabat." (Petrus Damianus, quoted by Dandolo.)

† Proverbs vii., 5 and 17.

air one remembered that the flowers had grown in the fields of the Decameron.

87. But this also I know, and more surely, that the beautiful work done in St. Mark's during the Greek girl's reign in Venice first interpreted to her people's hearts, and made legible to their eyes, the law of Christianity in its eternal harmony with the laws of the Jew and of the Greek: and gave them the glories of Venetian art in true inheritance from the angels of that Athenian Rock, above which Ion spread his starry tapestry,* and under whose shadow his mother had gathered the crocus in the dew.

* I have myself learned more of the real meaning of Greek myths from Euripides than from any other Greek writer, except Pindar. But I do not at present know of any English rhythm interpreting him rightly—these poor sapless measures must serve my turn,—(Wodhull's: 1778.)

“ The sacred tapestry

Then taking from the treasures of the God,
 He cover'd o'er the whole, a wondrous sight
 To all beholders : first he o'er the roofs
 Threw robes, which Hercules, the son of Jove,
 To Phœbus at his temple brought, the spoils
 Of vanquished Amazons ;
 On which these pictures by the loom were wrought ;
 Heaven in its vast circumference all the stars
 Assembling ; there his courses too the Sun
 Impetuous drove, till ceas'd his waning flame,
 And with him drew in his resplendent train,
 Vesper's clean light ; then clad in sable garb
 Night hasten'd ; hastening stars accompanied
 Their Goddess ; through mid-air the Pleiades,
 And with his falchion arm'd, Orion mov'd.
 But the sides he covered
 With yet more tapestry, the Barbaric fleet
 To that of Greece opposed, was there display'd ;
 Follow'd a monstrous brood, half horse, half man,
 The Thracian monarch's furious steeds subdu'd,
 And lion of Nemæa.”

* * * * *

“ * * * Underneath those craggy rocks,
 North of Minerva's citadel ; (the kings
 Of Athens call them Macra),

Thou cam'st, resplendent with thy golden hair,
 As I the crocus gathered, in my robe
 Each vivid flower assembling, to compose
 Garlands of fragrance."

The composition of fragrant garlands out of crocuses being however Mr. Michael Wodhull's improvement on Euripides. Creusa's words are literally, "Thou camest, thy hair flashing with gold, as I let fall the crocus petals, gleaming gold back again, into my robe at my bosom." Into the folds of it across her breast; as an English girl would have let them fall into her lap.

CHAPTER VIII.

THE REQUIEM.

88. As I re-read the description I gave, thirty years since, of St. Mark's Church;—much more as I remember, forty years since, and before, the first happy hour spent in trying to paint a piece of it, with my six o'clock breakfast on the little café table beside me on the pavement in the morning shadow, I am struck, almost into silence, by wonder at my own pert little Protestant mind, which never thought for a moment of asking what the Church had been built for!

Tacitly and complacently assuming that I had had the entire truth of God preached to me in Beresford Chapel in the Walworth Road,—recognizing no possible Christian use or propriety in any other sort of chapel elsewhere; and perceiving, in this bright phenomenon before me, nothing of more noble function than might be in some new and radiant seashell, thrown up for me on the sand;—nay, never once so much as thinking, of the fair shell itself, “Who built its domed whorls, then?” or “What manner of creature lives in the inside?” Much less ever asking, “Who is lying dead therein?”

89. A marvelous thing—the Protestant mind! Don't think I speak as a Roman Catholic, good reader: I am a mere wandering Arab, if that will less alarm you, seeking but my cup of cold water in the desert; and I speak only as an Arab, or an Indian,—with faint hope of ever seeing the ghost of Laughing Water. A marvelous thing, nevertheless, I repeat,—this Protestant mind! Down in Brixton churchyard, all the fine people lie inside railings, and their relations expect the passers-by to acknowledge reverently who's *there*:—nay, only last year, in my own Cathedral churchyard of Oxford, I saw the new grave of a young girl fenced

about duly with carved stone, and overlaid with flowers; and thought no shame to kneel for a minute or two at the foot of it,—though there were several good Protestant persons standing by.

But the old leaven is yet so strong in me that I am very shy of being caught by any of my country people kneeling near St. Mark's grave.

"Because—you know—it's all nonsense: it isn't St. Mark's—and never was,"—say my intellectual English knot of shocked friends.

I suppose one must allow much to modern English zeal for genuineness in all commercial articles. Be it so. Whether God ever gave the Venetians what they thought He had given, does not matter to us; He gave them at least joy and peace in their imagined treasure, more than we have in our real ones.

And he gave them the good heart to build this chapel over the cherished grave, and to write on the walls of it, St. Mark's gospel, for all eyes,—and, so far as their power went, for all time.

90. But it was long before I learned to read that; and even when, with Lord Lindsay's first help, I had begun spelling it out,—the old Protestant palsy still froze my heart, though my eyes were unsealed; and the preface to the Stones of Venice was spoiled, in the very center of its otherwise good work, by that blunder, which I've left standing in all its shame, and with its hat off—like Dr. Johnson repentant in Lichfield Market,—only putting the note to it "Fool that I was!" (page 11).* I fancied actually that the main function of St. Mark's was no more than of our St. George's at Windsor, to be the private chapel of the king and his

* Scott himself (God knows I say it sorrowfully, and not to excuse my own error, but to prevent *his* from doing more mischief,) has made just the same mistake, but more grossly and fatally, in the character given to the Venetian Procurator in the 'Talisman.' His error is more shameful, because he has confused the institutions of Venice in the fifteenth century with those of the twelfth.

knights;—a blessed function that also, but how much lower than the other?

91. "Chiesa DUCALE." It never entered my heart once to think that there was a greater Duke than her Dòge, for Venice; and that she built, for her two Dukes, each their palace, side by side. The palace of the living, and of the,—Dead,—was he then—the other Duke?

"VIVA SAN MARCO."

You wretched little cast-iron gaspipe of a cockney that you are, who insist that your soul's your own, (see 'Punch' for 15th March, 1879, on the duties of Lent,) as if anybody else would ever care to have it! is there yet life enough in the molecules, and plasm, and general mess of the making of you, to feel for an instant what that cry once meant, upon the lips of men?

Viva, Italia! you may still hear that cry sometimes, though she lies dead enough. Viva, Vittor—Pisani!—perhaps also that cry, yet again.

But the answer,—“Not Pisani, but St. Mark,” when will you hear *that* again, nowadays? Yet when those bronze horses were won by the Bosphorus, it was St. Mark's standard, not Henry Dandolo's, that was first planted on the tower of Byzantium,—and men believed—by his own hand. While yet his body lay here at rest: and this, its requiem on the golden scroll, was then already written over it—in Hebrew, and Greek, and Latin.

In Hebrew, by the words of the prophets of Israel.

In Greek, by every effort of the building laborer's hand, and vision to his eyes.

In Latin, with the rhythmic verse which Virgil had taught,—calm as the flowing of Mincio.

But if you will read it, you must understand now, once for all, the method of utterance in Greek art,—here, and in Greece, and in Ionia, and the isles, from its first days to this very hour.

92. I gave you the bas-relief of the twelve sheep and little caprioling lamb for a general*type of all Byzantine art, to

fix in your mind at once, respecting it, that its intense first character is symbolism. The thing represented means more than itself,—is a sign, or letter, more than an image.

And this is true, not of Byzantine art only, but of all Greek art, *pur sang*. Let us leave, to-day, the narrow and degrading word 'Byzantine.' There is but one Greek school, from Homer's day down to the Doge Selvo's; and these St. Mark's mosaics are as truly wrought in the power of Daedalus, with the Greek constructive instinct, and in the power of Athena, with the Greek religious soul, as ever chest of Cypselus or shaft of Erechtheum. And therefore, whatever is represented here, be it flower or rock, animal or man, means more than it is in itself. Not sheep, these twelve innocent woolly things,—but the twelve voices of the gospel of heaven;—not palm-trees, these shafts of shooting stem and beaded fruit,—but the living grace of God in the heart, springing up in joy at Christ's coming;—not a king, merely, this crowned creature in his sworded state,—but the justice of God in His eternal Law;—not a queen, nor a maid only, this Madonna in her purple shade,—but the love of God poured forth, in the wonderfulness that passes the love of woman. *She* may forget—yet will I not forget thee.

93. And in this function of his art, remember, it does not matter to the Greek how far his image be *perfect* or not. That it should be *understood* is enough,—if it can be beautiful also, well; but its function is not beauty, but instruction. You cannot have purer examples of Greek art than the drawings on any good vase of the Marathonian time. Black figures on a red ground,—a few white scratches through them, marking the joints of their armor or the folds of their robes,—white circles for eyes,—pointed pyramids for beards,—you don't suppose that in these the Greek workman thought he had given the likeness of gods? Yet here, to his imagination, were Athena, Poseidon, and Herakles,—and all the powers that guarded his land, and cleansed his soul, and led him in the way everlasting.

And the wider your knowledge extends over the distant

days and homes of sacred art, the more constantly and clearly you will trace the rise of its symbolic function, from the rudest fringe of racing deer, or couchant leopards, scratched on some ill-kneaded piece of clay, when men had yet scarcely left their own cave-couchant life,—up to the throne of Cimabue's Madonna. All forms, and ornaments, and images, have a moral meaning as a natural one. Yet out of all, a restricted number, chosen for an alphabet, are recognized always as given letters, of which the familiar scripture is adopted by generation after generation.

94. You had best begin reading the scripture of St. Mark's on the low cupolas of the baptistery,—entering, as I asked you many a day since, to enter, under the tomb of the Doge Andrea Dandolo.

You see, the little chamber consists essentially of two parts, each with its low cupola: one containing the Font, the other the Altar.

The one is significant of Baptism with water unto repentance.

The other of Resurrection to newness of life.

Burial, in baptism with water, of the lusts of the flesh. Resurrection, in baptism by the Spirit—here, and now, to the beginning of life eternal.

Both the cupolas have Christ for their central figure: surrounded, in that over the font, by the Apostles baptizing with water; in that over the altar, surrounded by the Powers of Heaven, baptizing with the Holy Ghost and with fire. Each of the Apostles, over the font, is seen baptizing in the country to which he is sent.

Their legends, written above them, begin over the door of entrance into the church, with St. John the Evangelist, and end with St. Mark—the order of all being as follows:—

St. John the Evangelist baptizes in	Ephesus.
St. James	_____ Judæa.
St. Philip	_____ Phrygia.
St. Matthew	_____ Ethiopia.

St. Simon	_____	Egypt.
St. Thomas	_____	India.
St. Andrew	_____	Achaia.
St. Peter	_____	Rome.
St. Bartholomew	(legend indecipherable).	*
St. Thaddeus	_____	Mesopotamia.
St. Matthias	_____	Palestine.
St. Mark	_____	Alexandria.

Over the door is Herod's feast. Herodias' daughter dances with St. John Baptist's head in the charger, on her head,—simply the translation of any Greek maid on a Greek vase, bearing a pitcher of water on her head.

I am not sure, but I believe the picture is meant to represent the two separate times of Herod's dealing with St. John; and that the figure at the end of the table is in the former time, St. John saying to him, "It is not lawful for thee to have her."

95. Pass on now into the farther chapel under the darker dome.

Darker, and very dark;—to my old eyes, scarcely decipherable; to yours, if young and bright, it should be beautiful, for it is indeed the origin of all those golden-domed backgrounds of Bellini, and Cima, and Carpaccio; itself a Greek vase, but with new Gods. That ten-winged cherub in the recess of it, behind the altar, has written on the circle on its breast, "Fulness of Wisdom."



It is the type of the Breath of the Spirit. But it was once

* Quære? See post, § 151.

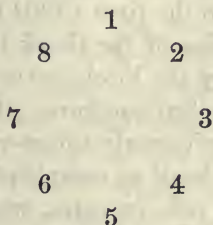
a Greek Harpy, and its wasted limbs remain, scarcely yet clothed with flesh from the claws of birds that they were.

At the sides of it are the two powers of the Seraphim and Thrones: the Seraphim with sword; the Thrones (TRONIS), with *Fleur-de-lys* scepter,—lovely.

Opposite, on the arch by which you entered are The Virtues, (VIRTUTES).

A dead body lies under a rock, out of which spring two torrents—one of water, one of fire. The Angel of the Virtues calls on the dead to rise.

Then the circle is thus completed:



1, being the Wisdom angel; 8, the Seraphim; 2, the Thrones; and 5, the Virtues. 3. Dominations. 4. Angels. 6. Potentates. 7. Princes: the last with helm and sword.

Above, Christ Himself ascends, borne in a whirlwind of angels; and, as the vaults of Bellini and Carpaccio are only the amplification of the Harpy-Vault, so the Paradise of Tintoret is only the final fulfilment of the thought in this narrow cupola.

96. At your left hand, as you look towards the altar, is the most beautiful symbolic design of the Baptist's death that I know in Italy. Herodias is enthroned, not merely as queen at Herod's table, but high and alone, the type of the Power of evil in pride of womanhood, through the past and future world, until Time shall be no longer.

On her right hand is St. John's execution; on her left, the Christian disciples, marked by their black crosses, bear his body to the tomb.

It is a four-square canopy, round arched; of the exact type of that in the museum at Perugia, given to the ninth century; but that over Herodias is round-trefoiled, and there is no question but that these mosaics are not earlier than the thirteenth century.

And yet they are still absolutely Greek in all modes of thought, and forms of tradition. The Fountains of fire and water are merely forms of the Chimera and the Peirene; and the maid dancing, though a princess of the thirteenth century in sleeves of ermine, is yet the phantom of some sweet water-carrier from an Arcadian spring.

97. These mosaics are the only ones in the interior of the church which belong to the time (1204) when its façade was completed by the placing of the Greek horses over its central arch, and illumined by the lovely series of mosaics still represented in Gentile Bellini's pictures, of which one only now remains. That *one*, left nearly intact—as Fate has willed—represents the church itself so completed; and the bearing of the body of St. Mark into its gates, with all the great kings and queens who have visited his shrine, standing to look on; not conceived, mind you, as present at any actual time, but as always looking on in their hearts.

98. I say it is left *nearly* intact. The three figures on the extreme right are restorations; and if the reader will carefully study the difference between these and the rest; and note how all the faults of the old work are caricatured, and every one of its beauties lost—so that the faces which in the older figures are grave or sweet, are in these three new ones as of staring dolls,—he will know, once for all, what kind of thanks he owes to the tribe of Restorers—here and elsewhere.

Please note, farther, that at this time the church had round arches in the second story, (of which the shells exist yet,) but no pinnacles or marble fringes. All that terminal filigree is of a far later age. I take the façade as you see it stood—just after 1204—thus perfected. And I will tell you, so far as I know, the meaning of it, and of what it led to, piece by piece.

99. I begin with the horses,—those I saw in my dream in 1871,—“putting on their harness.” See ‘Ariadne Florentina,’ § 213.

These are the sign to Europe of the destruction of the Greek Empire by the Latin. They are chariot horses—the horses of the Greek quadriga,—and they were the trophies of Henry Dandolo. That is all you need know of them just now;—more, I hope, hereafter; but you must learn the meaning of a Greek quadriga first. They stand on the great outer archivolt of the façade: its ornaments, to the front, are of leafage closing out of spirals into balls interposed between the figures of eight Prophets (or Patriarchs?)—Christ in their midst on the keystone. No one would believe at first it was thirteenth-century work, so delicate and rich as it looks; nor is there anything else like it that I know, in Europe, of the date:—but pure thirteenth-century work it is, of rarest chiseling. I have cast two of its balls with their surrounding leafage, for St. George’s Museum; the most instructive pieces of sculpture of all I can ever show there.

100. Nor can you at all know how good it is, unless you will learn to draw: but some things concerning it may be seen, by attentive eyes, which are worth the dwelling upon.

You see, in the first place, that the outer foliage is all of one kind—pure Greek Acanthus,—not in the least transforming itself into ivy, or kale, or rose: trusting wholly for its beauty to the varied play of its own narrow and pointed lobes.

Narrow and pointed—but not jagged; for the jagged form of Acanthus, look at the two Jean d’Acre columns, and return to this—you will then feel why I call it *pure*; it is as nearly as possible the acanthus of early Corinth, only more flexible, and with more incipient blending of the character of the vine which is used for the central bosses. You see that each leaf of these last touches with its point a stellar knot of inwoven braid; (compare the ornament round the low archivolt of the porch on your right below), the outer acanthus folding all in spiral whorls.

101. Now all thirteenth-century ornament of every nation

runs much into spirals, and Irish and Scandinavian earlier decoration into little else. But these spirals are different from theirs. The Northern spiral is always elastic—like that of a watch-spring. The Greek spiral, drifted like that of a whirlpool, or whirlwind. It is always an eddy or vortex—not a living rod, like the point of a young fern.

At least, not living its own life—but under another life. It is under the power of the Queen of the Air; the power also that is over the Sea, and over the human mind. The first leaves I ever drew from St. Mark's were those drifted under the breathing of it; * these on its uppermost cornice, far lovelier, are the final perfection of the Ionic spiral, and of the thought in the temple of the Winds.

But perfected under a new influence. I said there was nothing like them (that I knew) in European architecture. But there is, in Eastern. They are only the amplification of the cornice over the arches of the Holy Sepulchre at Jerusalem.

102. I have been speaking hitherto of the front of the arch only. Underneath it, the sculpture is equally rich, and much more animated. It represents,—What think you, or what would you have, good reader, if you were yourself designing the central archivolt of your native city, to companion, and even partly to sustain, the stones on which those eight Patriarchs were carved—and Christ?

The great men of your city, I suppose,—or the good women of it? or the squires round about it, with the Master of the hounds in the middle? or the Mayor and Corporation? Well. That last guess comes near the Venetian mind, only it is not my Lord Mayor, in his robes of state, nor the Corporation at their city feast; but the mere Craftsmen of Venice—the Trades, that is to say, depending on handicraft, beginning with the shipwrights, and going on to the givers of wine and bread—ending with the carpenter, the smith, and the fisherman.

Beginning, I say, if read from left to right, (north to

* See the large plate of two capitals in early folio illustrations.

south,) with the shipwrights; but under them is a sitting figure, though sitting, yet supported by crutches. I cannot read this symbol: one may fancy many meanings in it,—but I do not trust fancy in such matters. Unless I know what a symbol means, I do not tell you my own thoughts of it.

103. If, however, we read from right to left, Oriental-wise, the order would be more intelligible. It is then thus:

1. Fishing.
 2. Forging.
 3. Sawing. Rough carpentry?
 4. Cleaving wood with axe. Wheelwright?
 5. Cask and tub making.
 6. Barber-surgery.
 7. Weaving.
- Keystone—Christ *the Lamb*; i.e., in humiliation.
8. Masonry.
 9. Pottery.
 10. The Butcher.
 11. The Baker.
 12. The Vintner.
 13. The Shipwright. And
 14. The rest of old age?

104. But it is not here the place to describe these carvings to you,—there are none others like them in Venice except the bases of the piazzetta shafts; and there is little work like them elsewhere, pure realistic sculpture of the twelfth and thirteenth centuries: I may have much to say of them in their day—not now.

Under these laborers you may read, in large letters, a piece of history from the Vienna Morning Post—or whatever the paper was—of the year 1815, with which we are not concerned; nor need anybody else be so, to the end of time.

Not with that; nor with the mosaic of the vault beneath—flaunting glare of Venetian art in its ruin. No vestige of old work remains till we come to those steps of stone ascending on each side over the inner archivolt; a strange method of

enclosing its curve; but done with special purpose. If you look in the Bellini picture, you will see that these steps formed the rocky midst of a mountain which rose over them for the ground, in the old mosaic; the Mount of the Beatitudes. And on the vault above, stood Christ blessing for ever—not as standing on the Mount, but supported above it by Angels.

105. And on the archivolt itself were carved the Virtues—with, it is said, the Beatitudes; but I am not sure yet of anything in this archivolt except that it is entirely splendid twelfth-century sculpture. I had the separate figures cast for my English museum, and put off the examination of them when I was overworked. The Fortitude, Justice, Faith, and Temperance are clear enough on the right—and the keystone figure is Constancy, but I am sure of nothing else yet: the less that interpretation partly depended on the scrolls, of which the letters were gilded, not carved:—the figures also gilded, in Bellini's time.

Then the innermost archivolt of all is of mere twelfth-century grotesque, unworthy of its place. But there were so many entrances to the atrium that the builders did not care to trust special teaching to any one, even the central, except as a part of the façade. The atrium, or outer cloister itself, was the real porch of the temple. And *that* they covered with as close scripture as they could—the whole creation and Book of Genesis pictured on it.

106. These are the mosaics usually attributed to the Doge Selvo: I cannot myself date any mosaics securely with precision, never having studied the technical structure of them; and these also are different from the others of St. Mark's in being more Norman than Byzantine in manner; and in an ugly admittance and treatment of nude form, which I find only elsewhere in manuscripts of the tenth and eleventh centuries of the school of Monte Casino and South Italy. On the other hand, they possess some qualities of thought and invention almost in a sublime degree. But I believe Selvo had better work done under him than these. Better work at all events, you shall now see—if you will. You must get

hold of the man who keeps sweeping the dust about, in St. Mark's; very thankful he will be, for a lira, to take you up to the gallery on the right-hand side, (south, of St. Mark's interior;) from which gallery, where it turns into the south transept, you may see, as well as it is possible to see, the mosaic of the central dome.

107. Christ enthroned on a rainbow, in a sphere supported by four flying angels underneath, forming white pillars of caryatid mosaic. Between the windows, the twelve apostles, and the Madonna—alas, the head of this principal figure frightfully 'restored,' and I think the greater part of the central subject. Round the circle enclosing Christ is written, "Ye men of Galilee, why stand ye at gaze? This Son of God, Jesus, so taken from you, departs that He may be the arbiter of the earth: in charge of judgment He comes, *and to give the laws that ought to be.*"

108. Such, you see, the central thought of Venetian worship. Not that we shall leave the world, but that our Master will come to it: and such the central hope of Venetian worship, that He shall come to *judge* the world indeed; not in a last and destroying judgment, but in an enduring and saving judgment, in truth and righteousness and peace. Catholic theology of the purest, lasting at all events down to the thirteenth century; or as long as the Byzantines had influence. For these are typical Byzantine conceptions; how far taken up and repeated by Italian workers, one cannot say; but in their gravity of purpose, meager thinness of form, and rigid drapery lines, to be remembered by you with distinctness as expressing the first school of design in Venice, comparable in an instant with her last school of design, by merely glancing to the end of the north transept, where that rich piece of foliage, full of patriarchs, was designed by Paul Veronese. And what a divine picture it might have been, if he had only minded his own business, and let the mosaic workers mind theirs!—even now it is the only beautiful one of the late mosaics, and shows a new phase of the genius of Veronese. All I want you to feel, however, is the difference

of temper from the time when people liked the white pillar-like figures of the dome, to that when they liked the dark exuberance of those in the transept.

109. But from this coign of vantage you may see much more. Just opposite you, and above, in the arch crossing the transept between its cupola and the central dome, are mosaics of Christ's Temptation, and of His entrance to Jerusalem. The upper one, of the Temptation, is entirely characteristic of the Byzantine mythic manner of teaching. On the left, Christ sits in the rocky cave which has sheltered Him for the forty days of fasting: out of the rock above issues a spring—meaning that He drank of the waters that spring up to everlasting life, of which whoso drinks shall never thirst; and in His hand is a book—the living Word of God, which is His bread. The Devil holds up the stones in his lap.

Next the temptation on the pinnacle of the Temple, symbolic again, wholly, as you see,—in very deed quite impossible: so also that on the mountain, where the treasures of the world are, I think, represented by the glittering fragments on the mountain top. Finally, the falling Devil, cast down head-foremost in the air, and approaching angels in ministering troops, complete the story.

110. And on the whole, these pictures are entirely representative to you of the food which the Venetian mind had in art, down to the day of the Doge Selvo. Those were the kind of images and shadows they lived on: you may think of them what you please, but the historic fact is, beyond all possible debate, that these thin dry bones of art were nourishing meat to the Venetian race: that they grew and throve on that diet, every day spiritually fatter for it, and more comfortably round in human soul:—no illustrated papers to be had, no Academy Exhibition to be seen. If their eyes were to be entertained at all, such must be their lugubrious delectation; pleasure difficult enough to imagine, but real and pure, I doubt not; even passionate. In as quite singularly incomprehensible fidelity of sentiment, my cousin's least baby has fallen in love with a wooden spoon; Paul not more devoted

to Virginia. The two are inseparable all about the house, vainly the unimaginative bystanders endeavoring to perceive, for their part, any amiableness in the spoon. But baby thrives in his pacific attachment,—nay, is under the most perfect moral control, pliant as a reed, under the slightest threat of being parted from his spoon. And I am assured that the crescent Venetian imagination did indeed find pleasantness in these figures; more especially,—which is notable—in the extreme emaciation of them,—a type of beauty kept in their hearts down to the Vivarini days; afterwards rapidly changing to a very opposite ideal indeed.

111. Nor even in its most ascetic power, disturbing these conceptions of what was fitting and fair in their own persons, or as a nation of fishermen. They have left us, happily, a picture of themselves, at their greatest time—unnoticed, so far as I can read, by any of their historians, but left for poor little me to discover—and that by chance—like the inscription on St. James's of the Rialto.

But before going on to see this, look behind you where you stand, at the mosaic on the west wall of the south transept.

It is not Byzantine, but rude thirteenth-century, and fortunately left, being the representation of an event of some import to Venice, the recovery of the lost body of St. Mark.

You may find the story told, with proudly polished, or loudly impudent, incredulity, in any modern guide-book. I will not pause to speak of it here, nor dwell, yet, on this mosaic, which is clearly later than the story it tells by two hundred years. We will go on to the picture which shows us things as they *were*, in its time.

112. You must go round the transept gallery, and get the door opened into the compartment of the eastern aisle, in which is the organ. And going to the other side of the square stone gallery, and looking back from behind the organ, you will see opposite, on the vault, a mosaic of upright figures in dresses of blue, green, purple, and white, variously embroidered with gold.

These represent, as you are told by the inscription above

them—the Priests, the Clergy, the Doge, and the people of Venice; and are an abstract, at least, or epitome of those personages, as they were, and felt themselves to be, in those days.

I believe, early twelfth-century—late eleventh it might be—later twelfth it may be,—it does not matter: these were the people of Venice in the central time of her unwearied life, her unsacrificed honor, her unabated power, and sacred faith. Her Doge wears, not the contracted shell-like cap, but the imperial crown. Her priests and clergy are alike mitred—not with the cloven, but simple, cap, like the conical helmet of a knight. Her people are also her soldiers, and their Captain bears his sword, sheathed in black.

So far as features could be rendered in the rude time, the faces are *all* noble—(one horribly restored figure on the right shows what *ignobleness*, on this large scale, modern brutality and ignorance can reach); for the most part, dark-eyed, but the Doge brown-eyed and fair-haired, the long tresses falling on his shoulders, and his beard braided like that of an Etruscan king.

113. And this is the writing over them.

PONTIFICES. CLERUS. POPULUS. DUX MENTE SERENUS.*

The Priests, the Clergy, the People, the Duke, serene of mind.

Most Serene Highnesses of all the after Time and World,—how many of you knew, or know, what this Venice, first to give the title, meant by her Duke's Serenity! and why she trusted it?

The most precious “historical picture” this, to my mind, of any in worldly gallery, or unworldly cloister, east or west; but for the present, all I care for you to learn of it, is that these were the kind of priests, and people, and kings, who

* The continuing couplet of monkish Latin,

“Laudibus atque choris
Excipiunt du'ce canoris,”

may perhaps have been made worse or less efficient Latin by some mistake in restoration.

wrote this Requiem of St. Mark, of which, now, we will read what more we may.

114. If you go up in front of the organ, you may see, better than from below, the mosaics of the eastern dome.

This part of the church must necessarily have been first completed, because it is over the altar and shrine. In it, the teaching of the Mosaic legend begins, and in a sort ends;—‘Christ, the King,’ foretold of Prophets—declared of Evangelists—born of a Virgin in due time!

But to understand the course of legend, you must know what the Greek teachers meant by an Evangelion, as distinct from a Prophecy. Prophecy is here thought of in its narrower sense as the foretelling of a good that is to be.

But an Evangelion is the voice of the Messenger, saying, it is *here*.

And the four mystic-Evangelists, under the figures of living creatures, are not types merely of the men that are to bring the Gospel message, but of the power of that message in all Creation—so far as it was, and is, spoken in all living things, and as the Word of God, which is Christ, was present, and not merely prophesied, in the Creatures of His hand.

115. You will find in your Murray, and other illumined writings of the nineteenth century, various explanations given of the meaning of the Lion of St. Mark—derived, they occasionally mention, (nearly as if it had been derived by accident!) from the description of Ezekiel.* Which, perhaps, you may have read once on a time, though even that is doubtful in these blessed days of scientific education;—but, boy or girl, man or woman, of you, not one in a thousand, if one, has ever, I am well assured, asked what was the *use* of Ezekiel’s Vision, either to Ezekiel, or to anybody else: any more than I used to think, myself, what St. Mark’s was built for.

In case you have not a Bible with you, I must be tedious enough to reprint the essential verses here.

116. “As I was among the Captives by the River of Chebar, the Heavens were opened, and I saw visions of God.”

* Or, with still more enlightened Scripture research, from “one of the Visions of Daniel”! (Sketches, etc., p. 18.)

(Fugitive at least,—and all *but* captive,—by the River of the deep stream,—the Venetians perhaps cared yet to hear what he saw.)

“In the fifth year of King Jehoiachin’s captivity, the word of the Lord came *expressly* unto Ezekiel the Priest.”

(We also—we Venetians—have our Pontifices; we also our King. May we not hear?)

“And I looked, and, behold, a whirlwind came out of the north, and a fire infolding itself. Also in the midst thereof was * the likeness of Four living Creatures.

“And this was the aspect of them; the Likeness of a Man was upon them.

“And every one had four faces, and every one four wings. And they had the hands of a Man under their wings. And their wings were stretched upward, two wings of every one were joined one to another, and two covered their bodies. And when they went, I heard the noise of their wings, like the noise of great waters, as the voice of the Almighty, the voice of speech, the noise of an Host.”

(To us in Venice, is not the noise of the great waters known—and the noise of an Host? May we hear also the voice of the Almighty?)

“And they went every one straight forward. Whither the Spirit was to go, they went. And this was the likeness of their faces: they four had the face of a Man” (to the front), “and the face of a Lion on the right side, and the face of an Ox on the left side, and” (looking back) “the face of an Eagle.”

And not of an Ape, then, my beautifully-browed cockney friend?—the unscientific Prophet! The face of Man; and of the wild beasts of the earth, and of the tame, and of the birds of the air. This was the Vision of the Glory of the Lord.

117. “And as I beheld the living creatures, behold, *one* wheel upon the earth, by the living creatures, with *his* four faces, . . . and their aspect, and their work, was as a wheel in the midst of a wheel.”

* What alterations I make are from the Septuagint.

Crossed, that is, the meridians of the four quarters of the earth. (See Holbein's drawing of it in his Old Testament series.)

“And the likeness of the Firmament upon the heads of the living creatures was as the color of the terrible crystal.

“And there was a voice from the Firmament that was over their heads, when they stood, *and had let down* their wings.

“And above the Firmament that was over their heads was the likeness of a Throne; and upon the likeness of the Throne was the likeness of the Aspect of a Man above, upon it.

“And from His loins round about I saw as it were the appearance of fire; and it had brightness round about, as the bow that is in the cloud in the day of rain. This was the appearance of the likeness of the Glory of the Lord. And when I saw it, I fell upon my face.”

Can any of us do the like—or is it worth while?—with only apes' faces to fall upon, and the forehead that refuses to be ashamed? Or is there, nowadays, no more anything for *us* to be afraid of, or to be thankful for, in all the wheels, and flame, and light, of earth and heaven?

And this that follows, after the long rebuke, is their Evangelion. This the sum of the voice that speaks in them, (chap. xi. 16).

“Therefore say, Thus saith the Lord. Though I have cast them far off among the heathen, yet will I be to them as a little sanctuary in the places whither they shall come.

“And I will give them one heart; and I will put a new spirit within them; and I will take the stony heart out of their flesh, and will give them a heart of flesh. That they may walk in my statutes, and keep mine ordinances and do them, and they shall be my people, and I will be their God.

“Then did the Cherubims lift up their wings, and the wheels beside them, and the glory of the God of Israel was over them above.”

118. That is the story of the Altar-Vault of St. Mark's, of which though much was gone, yet, when I was last in Venice, much was left, wholly lovely and mighty. The principal

figure of the Throned Christ was indeed for ever destroyed by the restorer; but the surrounding Prophets, and the Virgin in prayer, at least retained so much of their ancient color and expression as to be entirely noble,—if only one had nobility enough in one's own thoughts to forgive the failure of any other human soul to speak clearly what it had felt of most divine.

My notes have got confused, and many lost; and now I have no time to mend the thread of them: I am not sure even if I have the list of the Prophets complete; but these following at least you will find, and (perhaps with others between) in this order—chosen, each for his message concerning Christ, which is written on the scroll he bears.

119.

- I. On the Madonna's left hand, Isaiah. "Behold, a virgin shall conceive." (Written as far as 'Immanuel.')
- II. Jeremiah. "Hic est in quo,—Deus Noster."
- III. Daniel. "Cum venerit" as far as to "cessabit unctio."
- IV. Obadiah. "Ascendit sanctus in Monte Syon."
- V. Habakkuk. "God shall come from the South, and the Holy One from Mount Paran."
- VI. Hosea. (Undeciphered.)
- VII. Jonah. (Undeciphered.)
- VIII. Zephaniah. "Seek ye the Lord, all in the gentle time" (in mensueti tempore).
- IX. Haggai. "Behold, the desired of all nations shall come."
- X. Zechariah. "Behold a man whose name is the Branch." (*Oriens.*)
- XI. Malachi. "Behold, I send my messenger," etc. (*angelum meum.*)
- XII. Solomon. "Who is this that ascends as the morning?"
- XIII. David. "Of the fruit of thy body will I set upon thy throne."

120. The decorative power of the color in these figures, chiefly blue, purple, and white, on gold, is entirely admirable,—more especially the dark purple of the Virgin's robe, with lines of gold for its folds; and the figures of David and Solomon, both in Persian tiaras, almost Arab, with falling lappets to the shoulder, for shade; David holding a book with Hebrew letters on it and a cross, (a pretty sign for the Psalms;) and Solomon with rich orbs of lace like involved ornament on his dark robe, cusped in the short hem of it, over gold underneath. And note in all these mosaics that Byzantine 'purple,'—the color at once meaning Kinghood and its Sorrow,—is the same as ours—not scarlet, but amethyst, and that deep.

121. Then in the spandrils below, come the figures of the four beasts, with this inscription round, for all of them.

“QUAEQUE SUB OBSCURIS
DE CRISTO DICTA FIGURIS
HIS APERIRE DATUR
ET IN HIS, DEUS IPSE NOTATUR.”

“Whatever things under obscure figures have been said of Christ, it is given to *these*” (creatures) “to open; and in these, Christ Himself is seen.”

A grave saying. Not in the least true of mere Matthew, Mark, Luke, and John. Christ was never seen in them, though told of by them. But, as the Word by which all things were made, He is seen in all things made, and in the Poiesis of them: and therefore, when the vision of Ezekiel is repeated to St. John, changed only in that the four creatures are to him more distinct—each with its single aspect, and not each fourfold,—they are full of eyes within, and rest not day nor night,—saying, “Holy, Holy, Holy, Lord God Almighty, which art, and wast, and art to come.”

122. We repeat the words habitually, in our own most solemn religious service; but we repeat without noticing out of whose mouths they come.

“Therefore,” (we say, in much self-satisfaction,) “with

Angels and Archangels, and with all the Company of heaven" (meaning each of us, I suppose, the select Company we expect to get into there), "we laud and magnify," etc. But it ought to make a difference in our estimate of ourselves, and of our power to say, with our hearts, that God is Holy, if we remember that we join in saying so, not, for the present, with the Angels,—but with the Beasts.

123. Yet not with every manner of Beast; for afterwards, when all the Creatures in Heaven and Earth, and the Sea, join in the giving of praise, it is only these four who can say 'Amen.'

The Ox that treadeth out the corn; and the Lion that shall eat straw like the Ox, and lie down with the lamb; and the Eagle that fluttereth over her young; and the human creature that loves its mate, and its children. In these four is all the power and all the charity of earthly life; and in such power and charity "Deus ipse notatur."

124. Notable, in that manner, He was, at least, to the men who built this shrine where once was St. Theodore's;—not betraying nor forgetting their first master, but placing his statue, with St. Mark's Lion, as equal powers upon their pillars of justice;—St. Theodore, as you have before heard, being the human spirit in true conquest over the inhuman, because in true sympathy with it—not as St. George in contest with, but being strengthened and pedestaled by, the "Dragons, and all Deeps."

125. But the issue of all these lessons we cannot yet measure; it is only now that we are beginning to be able to read them, in the myths of the past, and natural history of the present world. The animal gods of Egypt and Assyria, the animal cry that there is *no* God, of the passing hour, are, both of them, part of the rudiments of the religion yet to be revealed, in the rule of the Holy Spirit over the venomous dust, when the sucking child shall play by the hole of the asp, and the weaned child lay his hand on the cockatrice' den.

126. And now, if you have enough seen, and understood,

this eastern dome and its lesson, go down into the church under the central one, and consider the story of that.

Under *its* angles are the four Evangelists themselves, drawn as men, and each with his name. And over *them* the inscription is widely different.*

“SIC ACTUS CHRISTI
DESCRIBUNT QUATUOR ISTI
QUOD NEQUE NATURA
LITER NENT, NEC UNTRINQUE FIGURA.”

“Thus do these four describe the Acts of Christ. And weave His story, neither by natural knowledge, nor, contrariwise, by any figure.”

Compare now the two inscriptions. In the living creatures, Christ Himself is seen by nature and by figure. But these four tell us His Acts, “Not by nature—not by figure.” How then?

127. You have had various “lives of Christ,” German and other, lately provided among your other severely historical studies. Some, critical; and some, sentimental. But there is only one light by which you can read the life of Christ,—the light of the life you now lead in the flesh; and that not the natural, but the won life. “Nevertheless, I live; yet not I, but Christ liveth in me.”

Therefore, round the vault, as the pillars of it, are the Christian virtues; somewhat more in number, and other in nature, than the swindling-born and business-bred virtues which most Christians nowadays are content in acquiring. But these old Venetian virtues are compliant, also, in a way. They are for sea-life, and there is one for every wind that blows.

128. If you stand in mid-nave, looking to the altar, the first narrow window of the cupola—(I call it first for reasons

* I give, and construe, this legend as now written, but the five letters ‘liter’ are recently restored, and I suspect them to have been originally either three or six, ‘cer’ or ‘discer.’ In all the monkish rhymes I have yet read, I don’t remember any so awkward a division as this of natura-liter.

presently given)—faces you, in the due east. Call the one next it, on your right, the second window; it bears east-south-east. The third, south-east; the fourth, south-south-east; the fifth, south; the ninth, west; the thirteenth, north; and the sixteenth, east-north-east.

The Venetian Virtues stand, one between each window. On the sides of the east window stand Fortitude and Temperance; Temperance the first, Fortitude the last; “he that endureth to the end, the same shall be saved.”

Then their order is as follows: Temperance between the first and second windows,—(quenching fire with water);—between the second and third, Prudence; and then, in sequence,

- III. Humility.
- IV. Kindness, (Benignitas).
- V. Compassion.
- VI. Abstinence.
- VII. Mercy.
- VIII. Long-suffering.
- IX. Chastity.
- X. Modesty.
- XI. Constancy.
- XII. Charity.
- XIII. Hope.
- XIV. Faith.
- XV. Justice.
- XVI. Fortitude.

129. I meant to have read all their legends, but ‘could do it any time,’ and of course never did!—but these following are the most important. Charity is put twelfth as the last attained of the virtues belonging to human life only: but she is called the “Mother of Virtues”—meaning, of them all, when they become divine; and chiefly of the four last, which relate to the other world. Then Long-suffering, (Patientia,) has for her legend, “Blessed are the Peacemakers”; Chastity, “Blessed are the pure in Heart”; Modesty, “Blessed are

ye when men hate you"; while Constancy (consistency) has the two heads, balanced, one in each hand, which are given to the keystone of the entrance arch: meaning, I believe, the equal balance of a man's being, by which it not only stands, but stands as an arch, with the double strength of the two sides of his intellect and soul. "*Qui sibi constat.*" Then note that 'Modestia' is here not merely shamefacedness, though it includes whatever is good in that; but it is contentment in being thought little of, or hated, when one thinks one ought to be made much of—a very difficult virtue to acquire indeed, as I know some people who know.

130. Then the order of the circle becomes entirely clear. All strength of character begins in temperance, prudence, and lowliness of thought. Without these, nothing is possible, of noble humanity: on these follow—kindness, (simple, as opposed to malice,) and compassion, (sympathy, a much rarer quality than mere kindness;) then, *self-restriction*, a quite different and higher condition than temperance,—the first being not painful when rightly practised, but the latter always so—("I held my peace, even for good"—"*quanto quisque sibi plura negaverit, ab Dis plura feret*"). Then come pity and long-suffering, which have to deal with the sin, and not merely with the sorrow, of those around us. Then the three Trial virtues, through which one has to struggle forward up to the power of Love, the twelfth.

All these relate only to the duties and relations of the life that is now.

But Love is stronger than Death; and through her, we have, first, Hope of life to come; then, surety of it; living by this surety, (the Just shall live by Faith,) Righteousness, and Strength to the end. Who bears on her scroll, "The Lord shall break the teeth of the Lions."

131. An undeveloped and simial system of human life—you think it—cockney friend!

Such as it was, the Venetians made shift to brave the war of this world with it, as well as ever you are like to do; and they had, besides, the joy of looking to the peace of another.

For, you see, above these narrow windows, stand the Apostles, and the two angels that stood by them on the Mount of the Ascension; and between these the Virgin; and with her, and with the twelve, you are to hear the angels' word, "Why stand ye at gaze? as He departs, so shall He come, to give the Laws that ought to be."

DEBITA JURA,

a form of 'debit' little referred to in modern ledgers, but by the Venetian acknowledged for all devoirs of commerce and of war; writing, by his church, of the Rialto's business, (the first words, these mind you, that Venice ever speaks aloud,) "Around this Temple, let the Merchant's law be just, his weights true, and his covenants faithful." And writing thus, in lovelier letters, above the place of St. Mark's Rest,—

"Brave be the living, who live unto the Lord;
For Blessed are the dead, that die in Him."

132. [*Note to first edition.*—The mosaics described in this number of St. Mark's Rest being now liable at any moment to destruction—from causes already enough specified, I have undertaken, at the instance of Mr. Edward Burne Jones, and with promise of that artist's helpful superintendence, at once to obtain some permanent record of them, the best that may be at present possible: and to that end I have already dispatched to Venice an accomplished young draughtsman, who is content to devote himself, as old painters did, to the work before him for the sake of that, and his own honor, at journeyman's wages. The three of us, Mr. Burne Jones, and he, and I, are alike minded to set our hands and souls hard at this thing: but we can't, unless the public will a little help us. I have given away already all I have to spare, and can't carry on this work at my own cost; and if Mr. Burne Jones gives his time and care gratis, and without stint, as I know he will, it is all he should be asked for. Therefore, the public must give me enough to maintain my draughtsman at his task: what mode of publication for the drawings may be then possible, is for after-consideration. I ask for subscriptions at present to obtain the copies only. The reader is requested to refer also to the final note appended to the new edition of the 'Stones of Venice,' and to send what subscription he may please to my publisher, Mr. G. Allen, Sunnyside, Orpington, Kent.]

CHAPTER IX.

(Edited by J. Ruskin)

SANCTUS, SANCTUS, SANCTUS.

AN ACCOUNT OF THE MOSAICS IN THE BAPTISTERY OF ST. MARK'S.

"The whole edifice is to be regarded less as a temple wherein to pray than as itself a Book of Common Prayer, a vast illuminated missal, bound with alabaster instead of parchment."

Stones of Venice, ii. 4, 46.

"We must take some pains, therefore, when we enter St. Mark's, to read all that is inscribed, or we shall not penetrate into the feeling either of the builder or of his times."

Stones of Venice, ii. 4, 64.

133. THE following catalogue of the mosaics of the Baptistery of St. Mark's was written in the autumn of 1882, after a first visit to Venice, and was then sent to Mr. Ruskin as a contribution to his collected records of the church. It was not intended for publication, but merely as notes or material for which he might possibly find some use; and if the reader in Venice will further remember that it is the work of no artist or antiquarian, but of a traveler on his holiday, he will, it is hoped, be the more ready to pardon errors and omissions which his own observation can correct and supply.*

* This chapter (now, 1894, revised) was written in ignorance of the book on St. Mark's, "La Chiesa Ducale," of Giovanni Meschinello (Venice, 1753), and before the issue of the "Guide de la Basilique St. Marc," by Antoine Pasini (Schio, 1888). Both these works give the inscriptions, and to some extent describe the mosaics throughout the church. The first is, however, very rare, but the latter is readily obtainable, and with it the church can be thoroughly read. M. Pasini, however, at least in his account of the Baptistery (pp. 219 *seq.*), does not attempt to classify or connect the subjects of the mosaics, but goes regularly round the walls, taking each as it comes, and thus losing half their real interest.

The mosaics of the Baptistery are, of course, only a small portion of those to be seen throughout the church, but that portion is one complete in itself, and more than enough to illustrate the vast amount of thought contained in the scripture legible on the walls of St. Mark's by every comer who is desirous of taking any real interest in the building.

The reader, then, who proposes to make use of the present guide can, by reference to the following list, see at a glance the subjects with which these mosaics deal, and the order in which his attention will be directed to them. They are, in addition to the altar-piece, these:—

- I. The Life of St. John the Baptist.
- II. The Infancy of Christ.
- III. St. Nicholas.
- IV. The Four Evangelists.
- V. The Four Saints.
- VI. The Greek Fathers.
- VII. The Latin Fathers.
- VIII. Christ and the Prophets.
- IX. Christ and the Apostles.
- X. Christ and the Angels.

134. The subject of the altar-piece is the Crucifixion. In the center is Christ on the cross, with the letters \overline{IC} . \overline{XC} on either side. Over the cross are two angels, veiling their faces with their robes; at its foot lies a skull,—Golgotha,—upon which falls the blood from Christ's feet, whilst on each side of the Saviour are five figures, those at the extreme ends of the mosaic being a doge and dogress, probably the donors of the mosaic.

To the left is St. Mark— \overline{S} \overline{MARCUS} —with an open book in his hand, showing the words, “In illo tempore Maria mater. . . .” “In that hour Mary his mother. . . .” She stands next the cross, with her hands clasped in grief; above her are the letters $M-P$ θV — $\mu\eta\tau\epsilon\rho$ $\theta\epsilon\omicron\upsilon$ —Mother



of God.

To the right of the cross is St. John the Evangelist—S. IOHES EV̄G—his face covered with his hands, receiving charge of the Virgin: “When Jesus, therefore, saw his mother, and the disciple standing by, whom he loved, he saith unto his mother, Woman, behold thy son! Then saith he to the disciple, Behold thy mother! And from that hour the disciple took her unto his own home” (St. John xix. 26, 27).

Lastly, next St. John the Evangelist is St. John the Baptist, bearing a scroll, on which are the words:

“ECCE AGNUS DEI ECE. . . .”

“Ecce agnus Dei, ecce qui tollit peccatum mundi.”

“Behold the Lamb of God which taketh away the sin of the world” (St. John i. 29).*

135. (I.) THE LIFE OF ST. JOHN THE BAPTIST.—Leaving the altar and turning to the right, we have the first mosaic in the series which gives the life of the Baptist, and consists in all of ten pictures. (See plan, p. 92.)

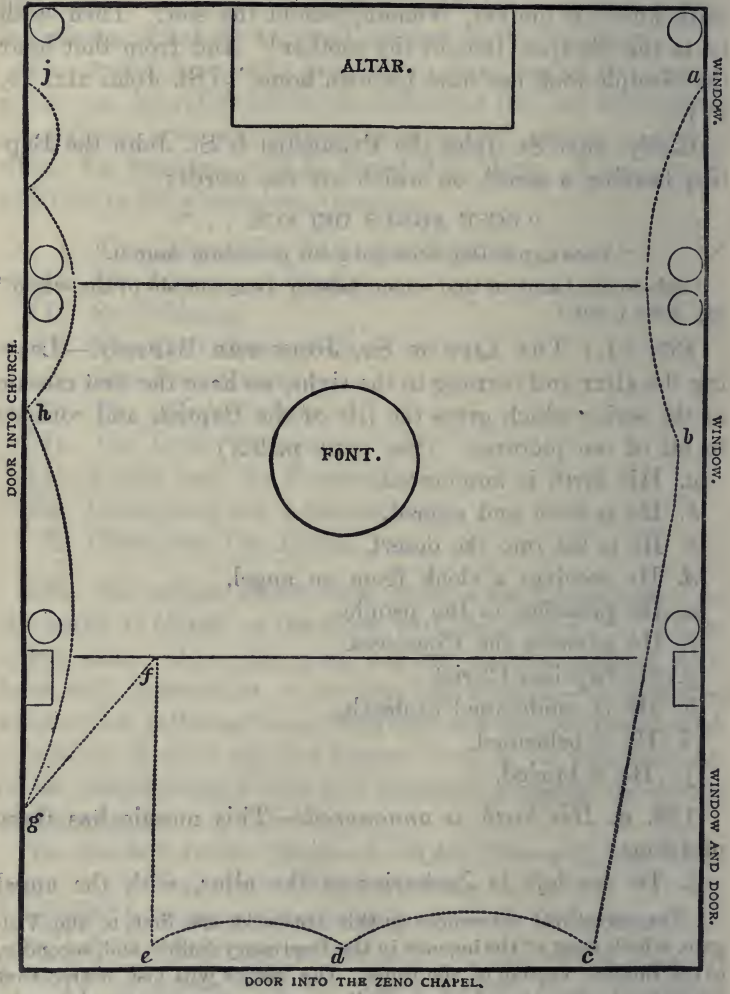
- a. His birth is announced.
- b. He is born and named.
- c. He is led into the desert.
- d. He receives a cloak from an angel.
- e. He preaches to the people.
- f. He answers the Pharisees.
- g. He baptizes Christ.
- h. He is condemned to death.
- i. He is beheaded.
- j. He is buried.

136. a. *His birth is announced.*—This mosaic has three divisions.

I. To the left is Zacharias at the altar, with the angel

* The scriptural references in this appendix are, first, to the Vulgate, which most of the legends in the Baptistery follow, and, secondly, to the English version of the Bible. The visitor will also notice that throughout the chapel the scrolls are constantly treated by the mosaicists literally as scrolls, the text being cut short even in the middle of a word by the curl of the supposed parchment.

PLAN OF THE BAPTISTERY.



appearing to him. He swings a censer, burning incense "in the order of his course." He has heard the angel's message, for his look and gesture show clearly that he is already struck dumb. Above are the words:

INGRESSO ZACHARIA TĒPLV̄ DÑI
 AP ARVIT EI AĠLŠ DÑI STĀS
 A DEXTRIS ALTARIS

"Ingresso Zacharia templum domini aparuit ei angelus domini stans a dextris altaris."

"When Zacharias had entered the temple of the Lord there appeared to him an angel of the Lord standing on the right side of the altar" (St. Luke i. 9-11).

II. "And the people waited for Zacharias, and marveled that he tarried so long in the temple. And when he came out, he could not speak unto them: and they perceived that he had seen a vision in the temple: for he beckoned unto them, and remained speechless" (St. Luke i. 21, 22).

✠ H. S. ZAHARIAS EXIT
 MUTUS AD PPLM

"Hic sanctus Zacharias exit mutus ad populum."

"Here saint Zacharias comes out dumb to the people."

III. "He departed to his own house" (St. Luke i. 23). Zacharias embracing his wife Elizabeth.

✠ S. ZAHA
 RIAS. S. ELI
 SABETA

137. *b. He is born and named* (opposite the door into the church).—Zacharias is seated to the left * of the picture, and has a book or "writing table" in front of him, in which he has written "Johannes est nomen ejus"—"His name is John" (Luke i. 63). To the right an aged woman, Elizabeth, points to the child inquiringly, "How would you have him called?"; further to the right, another and younger woman kneels, holding out the child to his father.



* By "right" and "left" in this appendix is meant always the right and left hand of the spectator as he faces his subject.

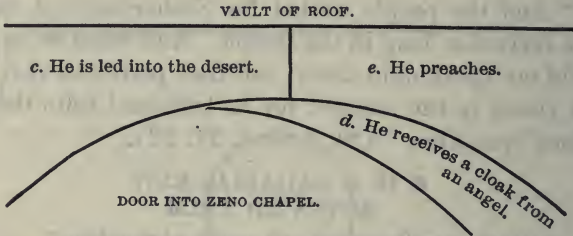
At the back a servant with a basket in her arms looks on. Unlike the other two women, she has no glory about her head. Above is a tablet inscribed:—

NATIVITAS
SANCTI JOHANNIS
BAPTISTÆ

and below another tablet, with the date and artist's name—

FRAN' TURESSIVS V.F. MDCXXVIII.

138. Turning now to the west wall, and standing with the altar behind us, we have the next three mosaics of the series, thus—



c. He is led into the desert.—The words of the legend are:—

✠ QVOM ANGELV' SEDOVXAT S. IOHAN.
I. DESERTUM.

“Quomodo angelus seduxit (?) sanctum Johannem in desertum.”

“How an angel led away St. John into the desert.”*

This is not biblical. “And the child grew and waxed strong in spirit, and was in the deserts till the day of his showing unto Israel” is all St. Luke (i. 80) says. Here the infant Baptist is being led by an angel, who points onward with one hand, and with the other holds that of the child, who, so far from being “strong in spirit,” looks troubled, and has one hand placed on his heart in evident fear. His other hand,

* Parini has “secum duxit,” “had led with him.”

in the grasp of the angel's, does not in any way hold it, but is held by it; he is literally *being led* into the desert somewhat against his will. The word *sedouxat* (? mediæval for *seduxit*) may here well have this meaning of persuasive leading. It should also be noted that the child and his guide are already far on their way; they have left all vegetation behind them; only a stony rock and rough ground, with one or two tufts of grass and a leafless tree, are visible.

139. *d. He receives a cloak from an angel.*—This is also not biblical. The words above the mosaic are—

HC ĀGELUS REPRESENTAT VESTE BTO IOHI

“Hic angelus representat vestem beato Johanni.”

“Here the angel gives (back ?) a garment to the blessed John.”

St. John wears his cloak of camel's hair, and holds in one
^{MT} hand a scroll, on which is written an abbreviation of
^{NO} the Greek “μετανοείτε” —“Repent ye.”
^{ΔT}
^E

e. He preaches to the people.

HIC PREDIĀT.*

“Here he preaches” [or “predicts the Christ.”]

The Baptist is gaunt and thin; he wears his garment of camel's hair, and has in his hand a staff with a cross at the top of it. He stands in a sort of pulpit, behind which is a building, presumably a church; whilst in front of him listen three old men, a woman, and a child. Below are three more women.

140. *f. He answers the Pharisees* (on the wall opposite *e*). —To the right are the priests and Levites sent from Jerusalem, asking, “What says he of himself?” They are four in number, a Rabbi and three Pharisees. To the left is St. John with two disciples behind him. Between them rolls the Jordan, at the ferry to which (Bethabara) the discussion

* The mark of abbreviation over the C shows the omission of an h in the mediæval “predichat.”

between the Baptist and the Jews took place, and across the river the Rabbi asks:

QVŌM . ERGO . BAPT
ZAS . SI NŌE . XPS . NE
Q̄ . HELIA . NEQ' PĦA

“Quomodo ergo baptizas si neque Christus, neque Elia, neque Propheta?”*

“Why baptizest thou, then, if thou be not that Christ, nor Elias, neither that prophet?” (John i. 25).

St. John does not, however, give the answer recorded of him in the Gospel, but another written above his head thus:—

✠ EGO BAPTIZO IŃO
MĪE PATRIS
ET . FILII . 7 . SP̄
SĀI

“Ego baptizo in nomine patrio et filii & Spiritus sancti.”

“I baptize in the name of the Father, and Son, and Holy Spirit.”

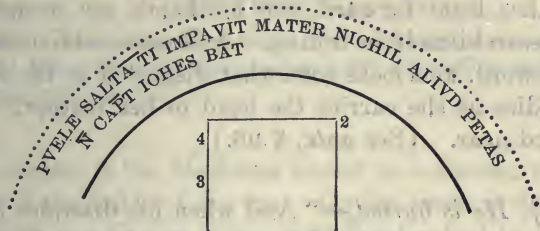
141. *g. He baptizes Christ.*

HICE BAPTISMV' XPI

On the left is a tree with an axe laid to its root. In the center stands St. John, with his hand on the head of Christ, who stands in the midst of the river. Three angels look down from the right bank into the water; and in it are five fishes, over one of which Christ's hand is raised in blessing. Below is a child with a golden vase in one hand, probably the river god of the Jordan, who is sometimes introduced into these pictures. From above a ray of light, with a star and a dove in it, descends on the head of Christ:—“And Jesus when he was baptized, went up straightway out of the water: and, lo, the heavens were opened unto him, and he saw the Spirit of God descending like a dove, and lighting upon him: and lo, a voice from heaven, saying, This is my beloved Son, in whom I am well pleased” (Matt. iii. 16, 17).

* The Vulgate has “Quid ergo baptizas si tu non es,” etc.

142. *h.* His death is commanded by Herod (over the door into the main body of the church).



The mosaic is (according to the sacristan) entirely restored, and the letters of the legend appear to have been incorrectly treated. The words are "Puellæ saltanti imperavit mater nihil (? nichil) aliud petas nisi caput Johannis Baptistæ"—"And as the girl danced her mother commanded her, saying, Ask for nothing else, but only for the head of John the Baptist."

Five figures are seen in the mosaic:—

i. Herod with his hands raised in horror and distress, "exceeding sorry" (Mark vi. 26).

ii. Herodias, pointing at him, with a smile of triumph.

iii. Herodias' daughter dancing, with the charger on her head.

iv. Another figure, with regard to which see *ante*, § 94, where it is suggested that the figure is St. John at a former time, saying to Herod, "It is not lawful for thee to have her." If this is not so, it may be that the figure represents the "lords, high captains, and chief estates of Galilee" (Mark vi. 21) who were at the feast.

v. A servant in attendance.

143. *i.* He is beheaded.

✠ DECHOLACIO SCL IOHIS BAT.

"The beheading of St. John the Baptist."

To the left is the headless body of St. John, still in prison. "And immediately the king sent an executioner (or 'one of his guard'), and he went and beheaded him in prison." The Baptist has leant forward, and his hands are stretched out, as if to save himself in falling. A Roman soldier is sheathing his sword, and looks somewhat disgusted at the daughter of Herodias as she carries the head to her mother, who sits enthroned near. (See *ante*, § 96.)

144. *j. He is buried.*—"And when his disciples heard of it they came and took up his corpse and laid it in a tomb" (Mark vi. 29).

H. SEPELITVR . CO
RPVS . S . IOHIS . BAT
(See *ante*, § 96.)

"Hic sepelitur corpus sancti Johannis Baptistæ"—"Here is being buried the body of St. John the Baptist."

The headless body of the Baptist is being laid in the grave by two disciples, whilst a third swings a censer over it.

145. (II.) THE INFANCY OF CHRIST.—Going back now to the west end of the chapel, we have four mosaics representing scenes in the infancy of Christ.

- | | | |
|----------------------------------|---|--|
| i. The wise men before Herod. | } | Above <i>c</i> and <i>e</i> in the life of St. John. |
| ii. The wise men adoring Christ. | | |
| iii. The flight into Egypt. | } | Opposite 1 and 2. |
| iv. The Holy Innocents. | | |

i. *The wise men before Herod.*

Herod is seated on his throne, attended by a Roman soldier; he looks puzzled and anxious. Before him are the three kings in attitudes of supplication; and above are the words—

✠ VBIE . QVINATU' . EST . REX . JUDÆORUM.

"Ubi est qui natus est rex Judæorum?" }
"Where is he that is born king of the Jews?" } St. Matt. ii. 2.

II. *The wise men adoring Christ.*

✠ ADORABVNT EV̄ OÑS REGES TERE ET OMS̄ GĒTES
SERVIENT EI.

“Adorabunt eum omnes reges terræ, (et) omnes gentes servient ei.”
“Yea, all kings shall fall down before him; all nations shall serve him” (Psalm lxxii. 10, 11).

In the center is the Madonna seated on a throne, which is also part of the stable of the inn. On her knees is the infant Christ, with two fingers of his right hand raised in benediction. The Madonna holds out her hand, as if showing the Child to the kings, who approach Him with gifts and in attitudes of devout worship. To the left is a man leading a camel out of a building; whilst to the right of the stable lies Joseph asleep, with an angel descending to him: “Arise and take the young child.” (See the next mosaic.) The rays from the central figure of the vaulted roof fall, one on the second of the three kings, and another, the most brilliant of them,—upon which, where it breaks into triple glory, the star of Bethlehem is set,—upon the Madonna and the Christ.

III. *The flight into Egypt.*

✠ SVRGE ET ACCIPE PUERVUM ET MATREM EU' ET FUGE IN
EGYPTUM . ET ESTO IBI USQ' DVM DICAM TIBI

“Surge et accipe puerum et matrem ejus et fuge in Egyptum et esto ibi usque dum dicam tibi.”

“Arise and take the young child and his mother, and flee into Egypt, and be there until I bring thee word” (St. Matt. ii. 13).

A youth carrying a gourd leads into a building with a mosque-like dome a white ass, on which is seated the Madonna, holding the infant Christ. Joseph walks behind, carrying a staff and cloak. The fact of the journey being sudden and hasty is shown by the very few things which the fugitives have taken with them—only a cloak and a gourd; they have left the presents of the three kings behind.

IV. *The Holy Innocents.*

✠ TUNC . HERODE' VIDE' Q'M ILVSV' EET AMAGI' IRATV'E . RE . DE . a . MIT
 TĒS OCCIDIT . OMS PUERO' QVI . ERANT . BETHLEEM OM . OIBUS FINIBUS .
 EIVS *

“Tunc Herodes videns quoniam illusus esset a magis iratus est valde, et mittens occidit omnes pueros qui erant in Bethlehem et in omnibus finibus ejus.”

“Then Herod, when he saw that he was mocked of the wise men, was exceeding wroth, and sent forth, and slew all the children that were in Bethlehem, and in all the coasts thereof” (Matt. ii. 16).

Three Roman soldiers are killing the children, some of whom already lie dead and bleeding on the rocky ground. To the right is a mother with her child in her arms, and near her another woman is holding up her hands in grief.

146. (III.) ST. NICHOLAS.

Just below the mosaic of the Holy Innocents is one of S. NICOLAU'—St. Nicholas—with one hand raised in benediction whilst the other holds a book. He is here, close to the small door that opens on to the Piazzetta, the nearest to the sea of all the saints in St. Mark's, because he is the sea saint, the patron of all ports, and especially of Venice. He was, it is well known, with St. George and St. Mark, one of the three saints who saved Venice from the demon ship in the storm when St. Mark gave to the fishermen the famous ring.

There now remain for the traveler's examination the three vaults of the Baptistery, the arches leading from one division of the chapel to another, and the spandrils which support the font and altar domes. In the arch leading from the west end of the chapel to the font are the four evangelists; in that leading from the dome over the font to that over the altar are four saints, whilst in the spandrils of the two last-named domes are, over the font, the four Greek, and over the altar the four Latin fathers.

* The letters underlined are unintelligible, as otherwise the legend follows the Vulgate. Possibly the words have been retouched, and the letters incorrectly restored.

147. (IV.) THE FOUR EVANGELISTS.

S. LUCAS EŪG.

St. Luke is writing in a book, and has written a letter and a half, possibly QV, the first two letters of Quoniam—"Forasmuch"—which is the opening word of his Gospel.

S. MARCVS EŪG.

St. Mark is sharpening his pencil, and has a pair of pincers on his desk.

S. IOHES EVG.

St. John is represented as very old,—alluding of course to his having written his Gospel late in life.

S. MATHEV' EVG.

St. Matthew is writing, and just dipping his pen in the ink.

148. (V.) FOUR SAINTS—*St. Anthony, St. Pietro Urseolo, St. Isidore, St. Theodore.*

a. *St. Anthony* (on the left at the bottom of the arch).

"Il beato Antonio di Bresa."

IL B EA
TO AN
TON IO
DI BR
E SA

St. Anthony is the hermit saint. He stands here with clasped hands, and at his side is a skull, the sign of penitence. He wears, as in many other pictures of him, a monk's dress, in allusion to his being "the founder of ascetic monachism." His "temptations" are well known.

b. *St. Pietro Urseolo* (above St. Anthony).

"Beatus Petrus Ursiolo dux(s) Vened."

✠ BEA TUS
PETR V'VRSI
O DUXS
LO VENED

"The blessed Pietro Urseolo, Doge of the Venetians."

This Doge turned monk. Influenced by the teaching of the abbot Guarino, when he

came to Venice from his convent in Guyenne, Pietro left his ducal palace one September night, fled from Venice, and shut himself up in the monastery of Cusano, where he remained for nineteen years, till his death in 997.

Here he is represented as a monk in a white robe, with a black cloak. He holds in his hand the Doge's cap, which he has doffed for ever, and as he looks upwards, there shines down on him a ray of light, in the center of which is seen the Holy Dove.

c. St. Isidore (opposite the Doge).

S. ISIDORVS MARTIR (?)

This is St. Isidore of Chios, a martyr saint, who perished during the persecutions of the Christians by the Emperor Decius, A.D. 250. He appears to have been much worshiped at Venice, where he is buried. Here he is seen dressed as a warrior, and bearing a shield and a lily, the symbol of purity.*

d. St. Theodore. S. THEODOR. M.

He is with St. George, St. Demetrius, and St. Mercurius, one of the four Greek warrior saints of Christendom, besides being, of course, the patron saint of Venice. He is martyr as well as warrior, having fired the temple of Cybele, and perished in the flames, A.D. 300.

The four saints upon this arch thus represent two forms of Christian service; St. Anthony and the Doge being chosen as types of asceticism, and the other two as examples of actual martyrdom.

149. (VI.) THE FOUR GREEK FATHERS—*St. John Chry-*

* See *Stones of Venice* (complete edition), vol. ii. chap. viii. § 127, and vol. iii. chap. ii. § 61. His body was brought to Venice with that of St. Donato in 1126 by the Doge Domenico Michiel. See *ante*, § 11.

sostom, St. Gregory Nazianzenus, St. Basil the Great, and St. Athanasius (on the spandrils of the central dome).

a. S. IOHES CRISOSTOMOS PATKA (patriarch), on the right of the door leading into the church.

He has no miter, being one of the Greek Fathers, who are thus distinguished from the Latin Fathers, all of whom, except St. Jerome (the cardinal), wear miters.

He bears a scroll—

✠ REG
NVM.I
NTRA
BIT.Q
VE.FON
S.PVR
VS ANT
E.LAV
ABIT

“Regnum intrabit, quem fons purus ante lavabit.”

“He, whom a pure fount shall first wash, shall enter the kingdom.”

b. S. GREGORIVS NAZIANZENUS (to the right of St. John Chrysostom). He is represented, as he usually is, as old and worn with fasting. On his scroll is written—

✠ QVO
DNA
TURA
TULI
T XPS
BAPTI
SMAT
ECV
RAT

“Quod natura tulit Christus baptisate curat.”

“What nature has brought, Christ by baptism cures.”

c. S. BASIL (to the right of his friend St. Gregory). St. Basil the Great, the founder of monachism in the East, began his life of devotion in early youth, and is here represented as a young man. The order of the Basilicans is still the only order in the Greek Church. His scroll has—

✠ UT SO	
LE EST	
PRIMUM	“ Ut sole est primum lux mundi, fide bap-
LUX (MŪ	tismum.”
DI FIDE	“ As by the sun we have the first light of
BĀTIS	the world, so by faith we have baptism.”
MUM)	

d. s. ATHANASIUS, old and white haired. His scroll runs—

✠ UT UN	
UM EST	
NUM	“ Ut unum est numen, sic sacro munere
EN SI	flumen.”
C SACR	“ As the Godhead is one, so by divine ordi-
OMU	nance is the river (of God?) ” (?)
NERE	
FLV	
MEN	

150. (VII.) THE FOUR LATIN FATHERS—*St. Jerome, St. Ambrose, St. Augustine, and St. Gregory the Great* (on the spandrils of the altar dome).

The light here is very bad; and even after accustoming himself to it, the reader will hardly be able to do more than see that all four figures have books before them, in which they are writing, apparently in Greek characters. What they have written—in no case more than a few letters—it is impossible to decipher from the floor of the chapel. St. Jerome wears his cardinal's hat and robes, and St. Ambrose has his bee-hive near him, in allusion to the story that when in his cradle a swarm of bees once lighted on his lips and did not sting him.

The visitor has thus examined all the mosaics except those of the three domes. He must now, therefore, return from near the altar to the further end of the chapel, and take first the vaulting (for accurately this is not a dome) of that part of the roof.

151. (VIII.) CHRIST AND THE PROPHETS.

In the center is Christ, surrounded by the prophets and patriarchs of the Old Testament, each of whom unfolds a scroll and displays on it a portion of his own prophecy.

Standing with his back to the altar, the visitor will thus see to the left of the Christ, Zephaniah and Elisha, and to his right Isaiah and Hosea.

I. ZEPHANIAH. SOPHONIAS PĤA (propheta).

His scroll runs thus:—

EXPE “Expecta me in die resurrectionis meæ
TA ME quoniam ju(dicium meum ut congregem
IN DIE gentes).”

RESU See Zeph. iii. 8. This legend is shortened,
RECT and not quite accurately quoted, from the
IONIS Vulgate. Our version is:—

MEE “Wait ye upon me until the day that I
QUO rise up . . . for my determination is to
NIAM gather the nations. . . .”

IU

II. ELISHA. ELISEAS PĤA

Scroll:—PATER

MI PA “Pater mi, pater mi, currus Israel et
TER MI auriga ejus.”

CURRU' “My father, my father, the chariot of
ISRAEL Israel and the horsemen thereof.”

ETAU 2 Kings ii. 12.

RIGA

EIVS

III. ISAIAH. ISAIAS

PĤA

Scroll:—ECCE V

IRGOc “Ecce virgo concipiet et pariet filium et
CIPIET vocabitur nóm (en ejus Emmanuel).”

ET PAR “Behold a virgin shall conceive and
IET FILI bear a son, and shall call his name Im-
UM ET V manuel.”*

OCABIT Isa. vii. 14.

UR NÔM

* Isaiah is constantly represented with these words on his scroll, as, for example, on the roof of the Arena Chapel at Padua, and on the western porches of the cathedral of Verona.

IV. HOSEA.

OSIA
PĤA

Scroll :—VENIT

EET RE

VERTA

MURAD

DOMINŪ

QVIA

IPSE CE

PIT ET

SANA

“Venite et revertamur ad dominum
quia ipse cepit et sana-(bit nos).”“Come and let us return unto the Lord,
for he has torn and he will heal us.”

Hosea vi. 1.

152. Then turning round and facing the altar, we have, to the left of the Christ, Jeremiah and Elijah; to the right, Abraham and Joel.

V. JEREMIAH.

JEREMIAS
PĤA

Scroll :—HIC EST

DEVS

NOSTER

ET NON

EXTIMA

BITUR

ALIVS

“Hic est Deus noster et non extimabitur
alius.”“This is our God, and none other shall
be feared.”

VI. ELIJAH.

ELIA
PĤA

Scroll :—DOMIN

ESICO

NUER

SUS

AVEN

IT PO

PVLVS

TV

VS

“Domine si(c) conversus avenit popu-
lus tuus.”“Lord, thus are thy people come against
thee.”

This is not biblical. It is noticeable that
Elijah, unlike the other prophets, who look
at the spectator, is turning to the Christ,
whom he addresses.

VII. ABRAHAM.

ABRAN
PĤA

Scroll :—VISITA

VIT DO

MINUS

SARAM

SICUT

PROMI

SERAT

“Visitavit (autem) dominus Saram
sicut promiserat.”“The Lord visited Sarah as he had said.”
Gen. xxi. 1.

VIII. *JOEL.*

JOEL

P̄H̄A

Scroll :—SUPER

SERVO(S)

MEOSET

SUPERA

NCILAS

ERUNDA

MDES

P̄V̄MEO

“Super servos meos et super ancillas effundam de spiritu meo.”*

“Upon my men servants and handmaids will I pour out (of) my spirit.”

Joel ii. 29.

153. Then, still facing the altar there are, on the wall to the right, David and Solomon; on that to the left, above the Baptism of Christ, Obadiah and Jonah.

IX. *DAVID.*

DAVID

P̄H̄A

Scroll :—FILIUS

MEV.E

STU.E

GO.H

ODIE.

GEN

UI.T

E

“Filius meus es tu, ego hodie genui te.”

“Thou art my son, this day have I begotten thee.”

Psalm ii. 7.

X. *SOLOMON.*

SALOMON

P̄H̄A

Scroll :—QVESI

VI.ILLV

M.ETNO

NINVEN

I.IŪENE

RŪT.IN

ME.VIGI

LE.QVI

CUTO

DIUT

CIUI

TA

TEM.

“Quæsivi illum et non inveni. Invenerunt in me vigiles qui custodiunt civitatem.”

“I sought him, but I found him not. The watchmen that go about the city found (or ‘came upon’) me.”

Song of Solomon, iii. 2, 3.

* The mosaic has apparently “erundam” for “effundam,” possibly a restorer’s error. The Vulgate has “spiritum neum,” for “de spiritu meo.”

XI. OBADIAH.

ABDIAS

PĦA

Scroll :—ECCE
PARV
ULVUM
DEDI
TTE
INGE
NTI
BV
S

“Ecce parvulum dedit te in gentibus.”
“Behold he has made thee small among
the heathen.”

Obadiah 2.

(Vulgate has “dedi”: and so has our
Bible “I have.”)

XII. JONAH.

JONAS

PĦA

Scroll :—CLAMA
VIADD
OMINU
MEEEX
AUDI
VITME
DETR
IBULA

“Clamavi ad dominum et exaudivit me
de tribulation (?) mea.”

“I cried by reason of my affliction to
the Lord, and he heard me.”

Jonah ii. 2.

TIO
ME.
N

154. (IX.) CHRIST AND THE APOSTLES. (See *ante*, § 94.)

Passing now to under the central dome, Christ is again seen enthroned in the midst, no longer, however, of the prophets, but of his own disciples. He is no longer the Messiah, but the risen Christ. He wears gold and red, the emblems of royalty; his right hand is raised in blessing; his left holds the resurrection banner and a scroll. The marks of the nails are visible in his hands and feet here only; they are not to be seen, of course, in the previous vaulting, nor are they in the third or altar dome, where he sits enthroned triumphant as the Heavenly King.

Scroll :—EVNTES

INMVDV̄

UNIVES

VM.PRE

DICHAT

EEVAN

GELIV

MOMIC

REATU

REQUI

CREDI

DERI

TEBA

PTIS

ATU

“Euntes in mundum universum prædicare evangelium omni creaturæ. Qui crediderit et baptizatu(s) fuerit salvus erit.”

“Go ye into all the world, and preach the Gospel to every creature. He that believeth and is baptized shall be saved.”

St. Mark xvi. 15, 16.

Below, right round the dome, are the twelve Apostles, baptizing each in the country with which his ministry is actually or by tradition most associated. A list of them has been already given (*ante*, § 94), with their countries, except that of St. Bartholomew, which is there noted as "indecipherable." It is, however, legible as India.

155. Each Apostle is the center of a similar group, consisting of the Apostle himself, his convert, in the moment of baptism, and a third figure whose position is doubtful. He may be awaiting baptism, already baptized, or merely an attendant: in the group of St. James the Less, he holds a towel, in that of St. Thomas, a cross; and in every case he wears the costume of the country where the baptism is taking place. Thus, to take the most striking instances, St. Philip's Phrygian has the red Phrygian cap; St. Peter's Roman is a Roman soldier; the Indians of St. Thomas and St. Bartholomew are (except for some slight variety of color) both dressed alike, and wear turbans. Behind the figures is in each group a building, also characteristic architecturally of the given country. In two instances there is seen a tree growing out of this building, namely, in the case of Palestine and in that of Achaia; but whether or no with any special meaning or allusion may be doubtful.

The inscriptions are as follows (see *ante*, § 94):

SCS IOHES EVG BAPTIZA	I EFESO
S. IACOB MINOR	I JUDEA
S. PHVLIP	I FRIGIA
S. MATHEV'	I ETIOPIA
S. SIMEON	I EGIPTV
S. TOMAS	IN INDIA
S. ANDRE	I ACHAIA
S. PETRV'	IN ROMA
S. BARTOLOMEV'	I INDIA
S. TADEV'	I MESOPOTAMIA
S. MATIAS	I PALESTIN
SCS MARCUS EVS	I ALESANDRIA

156. In this list, most careful reference is made, as has

been said, to the various traditions concerning the places of each Apostle's special ministry, the main tradition being always followed in cases of doubt. Thus, St. John was bishop of Ephesus; St. James the Less bishop of Jerusalem, where he received St. Paul, and introduced him to the Church; St. Philip labored in Phrygia, and is said to have died at Hierapolis; St. Matthew chiefly in Ethiopia; St. Simeon in Egypt; and St. Thomas (though this may be by confusion with another Thomas) is said to have preached in India and founded the Church at Malabar, where his tomb is shown, and "Christians of St. Thomas" is still a name for the Church. So, again, St. Andrew preached in Achaia, and was there crucified at Patræ; the connection of St. Peter with Rome needs no comment; both Jerome and Eusebius assign India to St. Bartholomew; St. Thaddæus or Jude preached in Syria and Arabia, and died at Edessa; the first fifteen years of the ministry of St. Mathias were spent in Palestine; and lastly, St. Mark is reported to have been sent by St. Peter to Egypt, and there founded the Church at Alexandria.

157. (X.) CHRIST AND THE ANGELS.

We pass lastly to the altar-dome, already partly described in the "Requiem" chapter of this book (§ 95).

In the center is Christ triumphant, enthroned on the stars, with the letters $\overline{IC} \overline{XC}$ once more on either side of him. In the circle with him are two angels, whose wings veil all but their faces; round it are nine other angels, ruby-colored for love, and bearing flaming torches. "He maketh his angels spirits, and his ministers a flaming fire."

Lower down round the dome are the "angels and arch-angels and all the company of heaven," who "laud and magnify his glorious name." These heavenly agencies are divided into three hierarchies, each of three choirs, and these nine choirs are given round this vault.

Hierarchy I. . . . Seraphim, Cherubim, Thrones.

Hierarchy II. . . . Dominations, Virtues, Powers.

Hierarchy III. . . . Princedoms, Archangels, Angels.

“The first three choirs receive their glory immediately from God, and transmit it to the second; the second illuminate the third; the third are placed in relation to the created universe and man. The first hierarchy are as counsellors; the second as governors; the third as ministers. The Seraphim are absorbed in perpetual love and adoration immediately round the throne of God; the Cherubim know and worship; the Thrones sustain the seat of the Most High. The Dominations, Virtues, Powers, are the regents of the stars and elements. The three last orders—Princedom, Archangels, and Angels—are the protectors of the great monarchies on earth, and the executors of the will of God throughout the universe.”*

The visitor can see for himself how accurately this statement is borne out by the mosaics of the altar-dome. Immediately over the altar, and nearest therefore to the presence of God, is the Cherubim, “the Lord of those that know,” with the words “fulness of knowledge,” “plenitudo scientiæ,” on his heart; to the left is the Seraphim; to the right the Thrones, “sustaining the seat of the Most High.” Further to the right come the Dominations—an armed angel, holding in one hand a balance, in the other a spear. In one scale of the balance is a man, in the other the book of the law; and this latter scale is being just snatched at by a winged demon, who, groveling on the ground, turns round to meet the spear of the angel. Opposite the Dominations are the Princedom or Principalities, another armed angel, wearing a helmet and calmly seated among the stars; and the Powers (“potestates”) with a black devil chained at his feet. The Virtues come next, with a skeleton in a grave below, and at the back a pillar of fire; and, lastly, the Angels and Archangels, “the executors of the will of God throughout the universe,” are seen nearest to the gospel-dome, standing above a rocky cave, in which are three figures. They appear to have various functions in the resurrection; the angel holds out a swathed man to the archangel, who holds a man (per-

* Mrs. Jameson’s “*Legendary Art*,” p. 45.

haps the same man), from whom the grave-clothes are falling. Between them they thus complete the resurrection of the dead.

158. It remains only for the visitor to observe, before leaving the chapel, the manner in which its different parts are related to each other. Upon the arch at the entrance to the gospel-dome are the Four Evangelists; on that which prefaces the altar-dome, with its display of heavenly triumph, are four saints "militant here on earth." But it is the domes themselves whose meaning is most evidently connected. In all, the same Figure is seen in the center, surrounded in the first by the prophets of the Old Testament, in the second by the Apostles, in the third by the heavenly choirs, the three together thus proclaiming the promise, the ministry, and the triumph of the prophesied, crucified, and glorified Christ.

SANCTUS, SANCTUS, SANCTUS,
DOMINUS, DEUS, OMNIPOTENS,
QUI ERAT, QUI EST, ET QUI VENTURUS EST.

Rev. iv. 8.

CHAPTER X.

THE SHRINE OF THE SLAVES.*

159. COUNTING the canals which, entering the city from the open lagoon, must be crossed as you walk from the Piazzetta towards the Public Gardens, the fourth, called the 'Rio della Pietà' from the unfinished church of the Pietà, facing the quay before you reach it, will presently, if you go down it in a gondola, and pass the Campo di S. Antonin, permit your landing at some steps on the right, in front of a little chapel of indescribable architecture, chiefly made up of foolish spiral flourishes, which yet, by their careful execution and shallow moldings, are seen to belong to a time of refined temper. Over its door are two bas-reliefs. That of St. Catherine leaning on her wheel seems to me anterior in date to the other, and is very lovely; the second is contemporary with the cinque-cento building, and fine also; but notable chiefly for the conception

* [PREFACE (*now printed as a footnote*).—The following (too imperfect) account of the pictures by Carpaccio in the chapel of San Giorgio de' Schiavoni is properly a supplement to the part of 'St. Mark's Rest' in which I propose to examine the religious mind of Venice in the fifteenth century; but I publish these notes prematurely that they may the sooner become helpful, according to their power, to the English traveler.

The next chapter contains the analysis by my fellow-worker, Mr. James Reddie Anderson, of the mythological purport of the pictures here described. I separate Mr. Anderson's work thus distinctly from my own, that he may have the entire credit of it; but the reader will soon perceive that it is altogether necessary, both for the completion and the proof of my tentative statements; and that without the certificate of his scholarly investigation, it would have been lost time to prolong the account of my own conjectures or impressions.]

of the dragon as a creature formidable rather by its gluttony than its malice, and degraded beneath the level of all other spirits of prey; its wings having wasted away into mere paddles or flappers, having in them no faculty or memory of flight; its throat stretched into the flaccidity of a sack, its tail swollen into a molluscous encumbrance, like an enormous worm; and the human head beneath its paw symbolizing therefore the subjection of the human nature to the most brutal desires.

160. When I came to Venice last year, it was with resolute purpose of finding out everything that could be known of the circumstances which led to the building, and determined style, of this chapel—or, more strictly, sacred hall—of the School of the Schiavoni. But day after day the task was delayed by some more pressing subject of inquiry; and, at this moment—resolved at last to put what notes I have on the contents of it at once together,—I find myself reduced to copy, without any additional illustration, the statement of Flaminio Corner.*

161. “In the year 1451, some charitable men of the Illyrian or Slavonic nation, many of whom were sailors, moved by praiseworthy compassion, in that they saw many of their fellow-countrymen, though deserving well of the republic, perish miserably, either of hard life or hunger, nor have enough to pay the expenses of church burial, determined to establish a charitable brotherhood under the invocation of the holy martyrs St. George and St. Trifon—brotherhood whose pledge was to succor poor sailors, and others of their nation, in their grave need, whether by reason of sickness or old age, and to conduct their bodies, after death, religiously to burial. Which design was approved by the Council of Ten, in a decree dated 19th May, 1451; after which, they obtained from the pity of the Prior of the Monastery of St. John of Jerusalem, Lorenzo Marcello, the convenience of a hospice in the buildings of the Priory, with rooms such as were needful for their meetings; and the privilege of building an altar in the

* ‘Notizie Storiche,’ Venice, 1758, p. 167.

church, under the title of St. George and Trifon, the martyrs; with the adjudgment of an annual rent of four zecchins, two loaves, and a pound of wax, to be offered to the Priory on the feast of St. George. Such were the beginnings of the brotherhood, called that of St. George of the Slavonians.

“Towards the close of the fifteenth century, the old hospice being ruinous, the fraternity took counsel to raise from the foundations a more splendid new one, under the title of the Martyr St. George, which was brought to completion, with its façade of marble, in the year 1501.”

162. The hospice granted by the pity of the Prior of St. John cannot have been very magnificent, if this little chapel be indeed much more splendid; nor do I yet know what rank the school of the Slavonians held, in power or number, among the other minor fraternities of Venice. The relation of the national character of the Dalmatians and Illyrians, not only to Venice, but to Europe, I find to be of far more deep and curious interest than is commonly supposed; and in the case of the Venetians, traceable back at least to the days of Herodotus; for the festival of the Brides of Venice, and its interruption by the Illyrian pirates, is one of the curious proofs of the grounds he had for naming the Venetians as one of the tribes of the Illyrians, and ascribing to them, alone among European races, the same practice as that of the Babylonians with respect to the dowries of their marriageable girls.

163. How it chanced that while the entire Riva,—the chief quay in Venice—was named from the Slavonians, they were yet obliged to build their school on this narrow canal, and prided themselves on the magnificence of so small a building, I have not ascertained, nor who the builder was;—his style, differing considerably from all the Venetian practice of the same date, by its refusal at once of purely classic forms, and of elaborate ornament, becoming insipidly grotesque, and chastely barbarous, in a quite unexampled degree, is noticeable enough, if we had not better things to notice within the unpretending doorway. Entering, we find ourselves in a

little room about the size of the commercial parlor in an old-fashioned English inn; perhaps an inch or two higher in the ceiling, which is of good horizontal beams, narrow and many, for effect of richness; painted and gilded, also, now tawdrily enough, but always in some such patterns as you see. At the end of the low room, is an altar, with doors on the right and left of it in the sides of the room, opening the one into the sacristy, the other to the stairs leading to the upper chapel. All the rest mere flat wall, wainscoted two-thirds up, eight feet or so, leaving a third of the height, say four feet, claiming some kind of decent decoration. Which modest demand you perceive to be modestly supplied, by pictures, fitting that measure in height, and running long or short as suits their subjects; ten altogether, (or with the altar-piece, eleven,) of which nine are worth your looking at.

164. Not as very successfully decorative work, I admit. A modern Parisian upholsterer, or clever Kensington student, would have done for you a far surpassing splendor in a few hours: all that we can say here, at the utmost, is that the place looks comfortable, and, especially, warm,—the pictures having the effect, you will feel presently, of a soft evening sunshine on the walls, or glow from embers on some peaceful hearth, cast up into the room where one sits waiting for dear friends, in twilight.

165. In a little while, if you still look with general glance, yet patiently, this warmth will resolve itself into a kind of checkering, as of an Eastern carpet, or old-fashioned English sampler, of more than usually broken and sudden variegation; nay, suggestive here and there of a wayward patchwork, verging into grotesqueness, or even, with some touch of fantasy in masque, into harlequinade,—like a tapestry for a Christmas night in a home a thousand years old, to adorn a carol of honored knights with honoring queens.

166. Thus far sentient of the piece, for all is indeed here but one,—go forward a little, please, to the second picture on the left, wherein, central, is our now accustomed friend, St. George: stiff and grotesque, even to humorousness, you will

most likely think him, with his dragon in a singularly depressed and, as it were, water-logged state. Never mind him, or the dragon, just now: but take a good opera-glass, and look therewith steadily and long at the heads of the two princely riders on the left—the Saracen king and his daughter—he in high white turban, she beyond him in the crimson cap, high, like a castle tower.

Look well and long. For truly,—and with hard-earned and secure knowledge of such matters, I tell you, through all this round world of ours, searching what the best life of it has done of brightest in all its times and years,—you shall not find another piece quite the like of that little piece of work for supreme, serene, unassuming, unfaltering sweetness of painter's perfect art. Over every other precious thing, of such things known to me, it rises, in the compass of its simplicity; in being able to gather the perfections of the joy of extreme childhood, and the joy of a hermit's age, with the strength and sunshine of mid-life, all in one.

Which is indeed more or less true of all Carpaccio's work and mind; but in this piece you have it set in close jewelry, radiant, inestimable.

167. Extreme joy of childhood, I say. No little lady in her first red shoes,—no soldier's baby seeing himself in the glass beneath his father's helmet, is happier in laugh than Carpaccio, as he heaps and heaps his Sultan's snowy crest, and crowns his pretty lady with her ruby tower. No desert hermit is more temperate; no ambassador on perilous policy more subtle; no preacher of first Christian gospel to a primitive race more earnest or tender. The wonderfulest of Venetian Harlequins this,—variegated, like Geryon, to the innermost mind of him—to the lightest gleam of his pencil: "Con più color, sommesse e sopraposte; non fur mai drappi Tartari ne Turchi;" and all for good.

Of course you will not believe me at first,—nor indeed, till you have unwoven many a fiber of his silk and gold. I had no idea of the make of it myself, till this last year, when I happily had beguiled to Venice one of my best young Ox-

ford men, eager as myself to understand this historic tapestry, and finer fingered than I, who once getting hold of the fringes of it, has followed them thread by thread through all the gleaming damask, and read it clear; whose account of the real meaning of all these pictures you shall have presently in full.

168. But first, we will go round the room to know what is here to read, and take inventory of our treasures; and I will tell you only the little I made out myself, which is all that, without more hard work than can be got through to-day, you are likely either to see in them or believe of them.

First, on the left, then, St. George and the Dragon—combatant both, to the best of their powers; perfect each in their natures of dragon and knight. No dragon that I know of pictured among mortal worms; no knight I know of, pictured in immortal chivalry, so perfect, each in his kind, as these two. What else is visible on the battle-ground, of living creature,—frog, newt, or viper,—no less admirable in their kind. The small black viper, central, I have painted carefully for the schools of Oxford as a Natural History study, such as Oxford schools prefer. St. George, for my own satisfaction, also as well as I could, in the year 1872; and hope to get him some day better done, for an example to Sheffield in iron-armor, and several other things.

169. Picture second, the one I first took you to see, is of the Dragon led into the market-place of the Sultan's capital—submissive: the piece of St. George's spear, which has gone through the back of his head, being used as a bridle: but the creature indeed now little needing one, being otherwise subdued enough; an entirely collapsed and confounded dragon, all his bones dissolved away; prince and people gazing as he returns to his dust.

170. Picture third, on the left side of the altar.*

The Sultan and his daughter are baptized by St. George.

Triumphant festival of baptism, as at the new birthday of

* The intermediate oblong on the lateral wall is not Carpaccio's, and is good for nothing.

two kingly spirits. Trumpets and shawms high in resounding transport; yet something of comic no less than rapturous in the piece; a beautiful scarlet—'parrot' (must we call him?) conspicuously mumbling at a violet flower under the steps; him also—finding him the scarletest and mumblingest parrot I had ever seen—I tried to paint in 1872 for the Natural History Schools of Oxford—perhaps a new species, or extinct old one, to immortalize Carpaccio's name and mind. When all the imaginative arts shall be known no more, perhaps, in Darwinian Museum, this scarlet "Epops Carpaccii" may preserve our fame.

But the quaintest thing of all is St. George's own attitude in baptizing. He has taken a good platterful of water to pour on the Sultan's head. The font of inlaid bronze below is quite flat, and the splash is likely to be spreading. St. George—carefullest of saints, it seems, in the smallest matters—is holding his mantle back well out of the way. I suppose, really and truly, the instinctive action would have been this, pouring at the same time so that the splash might be towards himself, and not over the Sultan.

With its head close to St. George's foot, you see a sharp-eared white dog, with a red collar round his neck. Not a greyhound, by any means; but an awkward animal; stupid-looking, and not much like a saint's dog. Nor is it in the least interested in the baptism, which a saint's dog would certainly have been. The mumbling parrot, and he—what *can* they have to do with the proceedings? A very comic picture!

171. But this next,—for a piece of sacred art, what can we say of it?

St. Tryphonius and the Basilisk—was ever so simple a saint, ever so absurd a beast? as if the absurdity of all heraldic beasts that ever were, had been hatched into one perfect absurdity—prancing there on the steps of the throne, self-satisfied;—*this* the beast whose glance is mortal! And little St. Tryphonius, with nothing remarkable about him more than is in every good little boy, for all I can see.

And the worst of it is that I don't happen to know anything about St. Tryphonius, whom I mix up a little with Trophonius, and his cave; also I am not very clear about the difference between basilisks and cockatrices; and on the whole find myself reduced, in this picture, to admiring the carpets with the crosses on them hung out of the window, which, if you will examine with opera-glass, you will be convinced, I think, that nobody can do the like of them by rules, at Kensington; and that if you really care to have carpets as good as they can be, you must get somebody to design them who can draw saints and basilisks too.

Note, also, the group under the loggia which the staircase leads up to, high on the left. It is a picture in itself; far more lovely as a composition than the finest Titian or Veronese, simple and pleasant this as the summer air, and lucent as morning cloud.

On the other side also there are wonderful things, only there's a black figure there that frightens me; I can't make it out at all; and would rather go on to the next picture, please.

Stay—I forgot the arabesque on the steps, with the living plants taking part in the ornament, like voices chanting here and there a note, as some pretty tune follows its melodious way, on constant instruments. Nature and art at play with each other—graceful and gay alike, yet all the while conscious that they are at play round the steps of a throne, and under the paws of a basilisk.

172. The fifth picture is in the darkest recess of all the room; and of darkest theme,—the Agony in the garden. I have never seen it rightly, nor need you pause at it, unless to note the extreme naturalness of the action in the sleeping figures—their dresses drawn tight under them as they have turned, restlessly. But the principal figure is hopelessly invisible.

173. The sixth picture is of the calling of Matthew; visible, this, in a bright day, and worth waiting for one, to see it in, through any stress of weather.

For, indeed, the Gospel which the publican wrote for us,

with its perfect Sermon on the Mount, and mostly more harmonious and gentle fulness, in places where St. Luke is formal, St. John mysterious, and St. Mark brief,—this Gospel, according to St. Matthew, I should think, if we had to choose one out of all the books in the Bible for a prison or desert friend, would be the one we should keep.

And we do not enough think how much that leaving the receipt of custom meant, as a sign of the man's nature, who was to leave us such a notable piece of literature.

174. Yet observe, Carpaccio does not mean to express the fact, or anything like the fact, of the literal calling of Matthew. What the actual character of the publicans of Jerusalem was at that time, in its general aspect, its admitted degradation, and yet power of believing, with the harlot, what the masters and the mothers in Israel could not believe, it is not his purpose to teach you. This call from receipt of custom, he takes for the symbol of the universal call to leave all that we have, and are doing. "Whosoever forsaketh not all that he hath, cannot be my disciple." For the other calls were easily obeyed in comparison of this. To leave one's often empty nets and nightly toil on sea, and become fishers of men, probably you might find pescatori enough on the Riva there, within a hundred paces of you, who would take the chance at once, if any gentle person offered it them. James and Jude—Christ's cousins—no thanks to them for following Him; their own home conceivably no richer than His. Thomas and Philip, I suppose, somewhat thoughtful persons on spiritual matters, questioning of them long since; going out to hear St. John preach, and to see whom he had seen. But *this* man, busy in the place of business—engaged in the interests of foreign governments—thinking no more of an Israelite Messiah than Mr. Goschen, but only of Egyptian finance, and the like—suddenly the Messiah, passing by, says "Follow me!" and he rises up, gives Him his hand. "Yea! to the death;" and absconds from his desk in that electric manner on the instant, leaving

his cash-box unlocked, and his books for whoso list to balance!—a very remarkable kind of person indeed, it seems to me.

Carpaccio takes him, as I said, for a type of such sacrifice at its best. Everything (observe in passing) is here given you of the best. Dragon deadliest—knight purest—parrot scarletest—basilisk absurdest—publican publicanest;—a perfect type of the life spent in taxing one's neighbor, exacting duties, per-centages, profits in general, in a due and virtuous manner.

175. For do not think Christ would have called a bad or corrupt publican—much less that a bad or corrupt publican would have obeyed the call. Your modern English evangelical doctrine that Christ has a special liking for the souls of rascals is the absurdest basilisk of a doctrine that ever pranced on judgment steps. That which is *lost* He comes to save,—yes; but not that which is defiantly going the way He has forbidden. He showed you plainly enough what kind of publican He would call, having chosen two, both of the best: “Behold, Lord, if I have taken anything from any man, I restore it fourfold!”—a beautiful manner of trade. Carpaccio knows well that there were no defalcations from Levi's chest—no oppressions in his tax-gathering. This whom he has painted is a true merchant of Venice, uprightest and gentlest of the merchant race; yet with a glorious pride in him. What merchant but one of Venice would have ventured to take Christ's hand, as his friend's—as one man takes another's? Not repentant, he, of anything he has done; not crushed or terrified by Christ's call; but rejoicing in it, as meaning Christ's praise and love. “Come up higher then, for there are nobler treasures than these to count, and a nobler King than this to render account to. Thou hast been faithful over a few things; enter thou into the joy of thy Lord.”

A lovely picture, in every sense and power of painting; natural, and graceful, and quiet, and pathetic;—divinely religious, yet as decorative and dainty as a bank of violets in spring.

176. But the next picture! How was ever such a thing allowed to be put in a church? Nothing surely could be more perfect in comic art. St. Jerome, forsooth, introducing his novice lion to monastic life, with the resulting effect on the vulgar monastic mind.

Do not imagine for an instant that Carpaccio does not see the jest in all this, as well as you do—perhaps even a little better. “Ask for him to-morrow, indeed, and you shall find him a grave man;” but, to-day, Mercutio himself is not more fanciful, nor Shakespeare himself more gay in his fancy of “the gentle beast and of a good conscience,” than here the painter as he drew his delicately smiling lion with his head on one side like a Perugino’s saint, and his left paw raised, partly to show the thorn wound, partly in deprecation,—

“For if I should, as lion, come in strife
Into this place, ’twere pity of my life.”

The flying monks are scarcely at first intelligible but as white and blue oblique masses; and there was much debate between Mr. Murray and me, as he sketched the picture for the Sheffield Museum, whether the actions of flight were indeed well given or not; he maintaining that the monks were really running like Olympic archers, and that the fine drawing was only lost under the quartering of the dresses:—I on the contrary believe that Carpaccio had failed, having no gift for representing swift motion. We are probably both right; I doubt not that the running action, if Mr. Murray says so, is rightly drawn; but at this time, every Venetian painter had been trained to represent only slow and dignified motion, and not till fifty years later, under classic influence, came the floating and rushing force of Veronese and Tintoret.

And I am confirmed in this impression by the figure of the stag in the distance, which does not run freely, and by the imperfect gallop of St. George’s horse in the first subject.

177. But there are many deeper questions respecting this St. Jerome subject than those of artistic skill. The picture is a jest indeed; but is it a jest only? Is the tradition itself

a jest? or only by our own fault, and perhaps Carpaccio's, do we make it so?

In the first place, then, you will please to remember, as I have often told you, Carpaccio is not answerable for himself in this matter. He begins to think of his subject, intending, doubtless, to execute it quite seriously. But his mind no sooner fastens on it than the vision of it comes to him as a jest, and he is forced to paint it. Forced by the fates,—dealing with the fate of Venice and Christendom. We must ask of Atropos, not of Carpaccio, why this picture makes us laugh; and why the tradition it records has become to us a dream and a scorn. No day of my life passes now to its sunset, without leaving me more doubtful of all our cherished contempts, and more earnest to discover what root there was for the stories of good men, which are now the mocker's treasure.

178. And I want to read a good "Life of St. Jerome." And if I go to Mr. Ongania's I shall find, I suppose, the autobiography of George Sand, and the life of—Mr. Sterling, perhaps; and Mr. Werner, written by my own master, and which indeed I've read, but forget now who either Mr. Sterling or Mr. Werner was; and perhaps, in religious literature, the life of Mr. Wilberforce and of Mrs. Fry; but not the smallest scrap of information about St. Jerome. To whom, nevertheless, all the charity of George Sand, and all the ingenuity of Mr. Sterling, and all the benevolence of Mr. Wilberforce, and a great quantity, if we knew it, of the daily comfort and peace of our own little lives every day, are verily owing; as to a lovely old pair of spiritual spectacles, without whom we never had read a word of the "Protestant Bible." It is of no use, however, to begin a life of St. Jerome now—and of little use to look at these pictures without a life of St. Jerome; but only thus much you should be clear in knowing about him, as not in the least doubtful or mythical, but wholly true, and the beginning of facts quite limitlessly important to all modern Europe—namely, that he was born of good, or at least rich family, in Dalmatia, virtually midway

between the east and the west; that he made the great Eastern book, the Bible, legible in the west; that he was the first great teacher of the nobleness of ascetic scholarship and courtesy, as opposed to ascetic savageness: the founder, properly, of the ordered cell and tended garden, where before was but the desert and the wild wood; and that he died in the monastery he had founded at Bethlehem.

179. It is this union of gentleness and refinement with noble continence,—this love and imagination illuminating the mountain cave into a frescoed cloister, and winning its savage beasts into domestic friends, which Carpaccio has been ordered to paint for you; which, with ceaseless exquisiteness of fancy, he fills these three canvases with the incidents of,—meaning, as I believe, the story of all monastic life, and death, and spiritual life for evermore: the power of this great and wise and kind spirit, ruling in the perpetual future over all household scholarship; and the help rendered by the companion souls of the lower creatures to the highest intellect and virtue of man.

And if with the last picture of St. Jerome in his study,—his happy white dog watching his face—you will mentally compare a hunting piece by Rubens, or Snyders, with the torn dogs rolled along the ground in their blood,—you may perhaps begin to feel that there is something more serious in this kaleidoscope of St. George's Chapel than you at first believed—which if you now care to follow out with me, let us think over this ludicrous subject more quietly.

180. What account have we here given, voluntarily or involuntarily, of monastic life, by a man of the keenest perception, living in the midst of it? That all the monks who have caught sight of the lion should be terrified out of their wits—what a curious witness to the *timidity* of Monasticism! Here are people professing to prefer Heaven to earth—preparing themselves for the change as the reward of all their present self-denial. And this is the way they receive the first chance of it that offers!

181. Evidently Carpaccio's impression of monks must be,

not that they were more brave or good than other men; but that they liked books, and gardens, and peace, and were afraid of death—therefore, retiring from the warrior's danger of chivalry somewhat selfishly and meanly. He clearly takes the knight's view of them. What he may afterwards tell us of good concerning them, will not be from a witness prejudiced in their favor. Some good he tells us, however, even here. The pleasant order in wildness of the trees; the buildings for agricultural and religious use, set down as if in an American clearing, here and there, as the ground was got ready for them; the perfect grace of cheerful, pure, illuminating art, filling every little cornice-cusp of the chapel with its jewel-picture of a saint,*—last, and chiefly, the perfect kindness to, and fondness for, all sorts of animals. Cannot you better conceive, as you gaze upon the happy scene, what manner of men they were who first secured from noise of war the sweet nooks of meadow beside your own mountain streams at Bolton, and Fountains, Furness and Tintern? But of the saint himself Carpaccio has all good to tell you. Common monks were, at least, harmless creatures; but here is a strong and beneficent one. "Calm, before the Lion!" say C. C. with their usual perspicacity, as if the story were that the saint alone had courage to confront the raging beast—a Daniel in the lions' den! They might as well say of Carpaccio's Venetian beauty that she is "calm before the lapdog." The saint is leading in his new pet, as he would a lamb, and vainly expostulating with his brethren for being ridiculous. The grass on which they have dropped their books is beset with flowers; there is no sign of trouble or asceticism on the old man's face, he is evidently altogether happy, his life being complete, and the entire scene one of the ideal simplicity and security of heavenly wisdom: "Her ways are ways of pleasantness, and all her paths are peace."

182. And now pass to the second picture. At first you

* See the piece of distant monastery in the lion picture, with its fragments of fresco on wall, its ivy-covered door, and illuminated cornice.

will perhaps see principally its weak monks—looking more foolish in their sorrow than ever they did in their fear. Portraits these, evidently, every soul of them—chiefly the one in spectacles, reading the funeral service so perfunctorily,—types, throughout, of the supreme commonplace alike in action and expression, except those quiet ones in purple on the right, and the grand old man on crutches, come to see this sight.

But St. Jerome himself in the midst of them, the eager heart of him quiet, to such uttermost quietness,—the body lying—look—absolutely flat like clay, as if it had been beat down, and clung, clogged, all along to the marble. Earth to earth indeed. Level clay and inlaid rock now all one—and the noble head senseless as a stone, with a stone for its pillow.

There they gather and kneel about it—wondering, I think, more than pitying. To see what was yesterday the great Life in the midst of them, laid thus! But, so far as they do not wonder, they pity only, and grieve. There is no looking for his soul in the clouds,—no worship of relics here, implied even in the kneeling figures. All look down, woefully, wistfully, as into a grave. “And so Death passed upon all men, for that all have sinned.”

183. This is Carpaccio’s message to us. And lest you should not read it, and carelessly think that he meant only the usual commonplace of the sacredness and blessedness of the death of the righteous,—look into the narrow shadow in the corner of the house at the left hand side, where, on the strange forked and leafless tree that occupies it, are set the cross and little vessel of holy water beneath, and above, the skull, which are always the signs of St. Jerome’s place of prayer in the desert.

The lower jaw has fallen from the skull *into the vessel of holy water.*

It is but a little sign,—but you will soon know how much this painter indicates by such things, and that here he means indeed that for the greatest, as the meanest, of the sons of Adam, death is still the sign of their sin; and that though in

Christ all shall be made alive, yet also in Adam all die; and this return to their earth is not in itself the coming of peace, but the infliction of shame.

At the lower edge of the marble pavement is one of Carpaccio's lovely signatures, on a white scroll, held in its mouth by a tiny lizard.

184. And now you will be able to enter into the joy of the last picture, the life of St. Jerome in Heaven.

I had no thought, myself, of this being the meaning of such closing scene; but the evidence for this reading of it, laid before me by my fellow-worker, Mr. Anderson, seems to me, in the concurrence of its many clauses, irresistible; and this at least is certain, that as the opposite St. George represents the perfect Mastery of the body, in contest with the lusts of the Flesh, this of St. Jerome represents the perfect Mastery of the mind, in the fulfilment of the right desires of the Spirit: and all the arts of man,—music (a long passage of melody written clear on one of the fallen scrolls), painting (in the illuminated missal and golden alcove), and sculpture (in all the forms of furniture and the bronze work of scattered ornaments),—these—and the glad fidelity of the lower animals,—all subjected in pleasant service to the more and more perfect reading and teaching of the Word of God;—read, not in written pages chiefly, but with uplifted eyes by the light of Heaven itself, entering and filling the mansions of Immortality.

This interpretation of the picture is made still more probable, by the infinite pains which Carpaccio has given to the working of it. It is quite impossible to find more beautiful and right painting of detail, or more truthful tones of atmosphere and shadow affecting interior colors.

185. Here then are the principal heads of the symbolic evidence, abstracted for us by Mr. Anderson from his complete account of the whole series, now in preparation.

I. "The position of the picture seems to show that it sums up the whole matter. The St. George series reads from left

to right. So, chronologically, the two others of St. Jerome; but this, which should according to the story have been first, appears after the death.

II. "The figure on the altar is—most unusually—our Lord with the Resurrection-banner. The shadow of this figure falls on the wall so as to make a crest for the miter on the altar—'Helmet of Salvation.' . . . The miter (by comparison with St. Ursula's arrival in Rome it is a cardinal's miter), censer, and crozier, are laid aside.

III. "The Communion and Baptismal vessels are also laid aside under this altar, not of the dead but of the Risen Lord. The curtain falling from the altar is drawn aside that we may notice this.

IV. "In the mosaic-covered recess above the altar there is prominently inlaid the figure of a cherub or seraph 'che in Dio più l'occhio ha fisso.'

V. "Comparing the colors of the winged and four-footed parts of the 'animal binato' in the Purgatory, it is I believe important to notice that the statue of our Lord is gold, the dress of St. Jerome red and white, and over the shoulders a cape of the brown color of earth.

VI. "While candles blaze round the dead Jerome in the previous picture, the candlesticks on the altar here are empty—'they need no candle.'

VII. "The two round-topped windows in line behind the square one through which St. Jerome gazes, are the ancient tables bearing the message of light, delivered 'of angels' to the faithful, but now put behind, and comparatively dim beside the glory of present and personal vision. Yet the light which comes even through the square window streams through bars like those of a prison.

'Through the body's prison bars
His soul possessed the sun and stars,'

Dante Rossetti writes of Dante Alighieri; but Carpaccio hangs the wheels of all visible heaven *inside* these bars. St.

Jerome's 'possessions' are in a farther country. These bars are another way of putting what is signified by the brown cape.

VIII. "The two great volumes leaning against the wall by the arm-chair are the same thing, the closed testaments.

IX. "The documents hanging in the little chamber behind and lying at the saint's feet, remarkable for their hanging seals, are shown by these seals to be titles to some property, or testaments; but they are now put aside or thrown under-foot. Why, except that possession is gotten, that Christ is risen, and that 'a testament is of no strength at all while the testator liveth'? This I believe is no misuse of Paul's words, but an employment of them in their mystic sense, just as the New Testament writers quoted the Old Testament. There is a very prominent illuminated R on one of the documents under the table (I think you have written of it as Greek in its lines): I cannot but fancy it is the initial letter of 'Resurrectio.' What the music is, Caird has sent me no information about; he was to inquire of some friend who knew about old church music. The prominent bell and shell on the table puzzle me, but I am sure mean something. Is the former the mass-bell?

X. "The statuettes of Venus and the horse, and the various antique fragments on the shelf behind the arm-chair are, I think, symbols of the world, of the flesh, placed behind even the old Scripture studies. You remember Jerome's early learning, and the vision that awakened him from Pagan thoughts (to read the laws of the True City) with the words, 'Ubi est thesaurus tuus.'

186. "I have put these things down without trying to dress them into an argument, that you may judge them as one would gather them haphazard from the picture. Individually several of them might be weak arguments, but together I do think they are conclusive. The key-note is struck by the empty altar bearing the risen Lord. I do not think Carpaccio thought of immortality in the symbols derived from mortal life, through which the ordinary mind feels after it. Nor

surely did Dante (V. esp. Par. IV. 27 and following lines). And think of the words in Canto II. :—

‘ Dentro dal ciel della Divina Pace
Si gira un corpo nella cui virtute
L'esser di tutto suo contento giace.’

But there is no use heaping up passages, as the sense that in using human language he merely uses mystic metaphor is continually present in Dante, and often explicitly stated. And it is surely the error of regarding these picture writings for children who live in the nursery of Time and Space, as if they were the truth itself, which can be discovered only spiritually, that leads to the inconsistencies of thought and foolish talk of even good men.

“ St. Jerome, in this picture, is young and brown-haired, not bent and with long white beard, as in the two others. I connect this with the few who have stretched their necks

‘ *Per tempo al pan degli angeli del quale
Vivesi qui ma non si vien satollo.*’

St. Jerome lives here by what *is* really the immortal bread; that shall not here be filled with it so as to hunger no more; and under his earthly cloak comprehends as little perhaps the Great Love he hungers after and is fed by, as his dog comprehends him. I am sure the dog is there with some such purpose of comparison. On that very last quoted passage of Dante, Landino's commentary (it was printed in Venice, 1491) annotates the words ‘*che drizzaste 'l eollo,*’ with a quotation,

‘ *Cum spectant animalia cetera terram
Os homini sublime dedit, coelum tueri jussit.*’ ”

187. I was myself brought entirely to pause of happy wonder when first my friend showed me the lessons hidden in these pictures; nor do I at all expect the reader at first to believe them. But the condition of his possible belief in them

is that he approach them with a pure heart and a meek one; for this Carpaccio teaching is like the talisman of Saladin, which dipped in pure water, made it a healing draught, but by itself seemed only a little inwoven web of silk and gold.

188. But to-day, that we may be able to read better to-morrow, we will leave this cell of sweet mysteries, and examine some of the painter's earlier work, in which we may learn his way of writing more completely, and understand the degree in which his own personal character, or prejudices, or imperfections, mingle in the method of his scholarship, and color or divert the current of his inspiration.

189. Therefore now taking gondola again, you must be carried through the sea-streets to a far-away church, in the part of Venice now wholly abandoned to the poor, though a kingly saint's—St. Louis's: but there are other things in this church to be noted, besides Carpaccio, which will be useful in illustration of him; and to see these rightly, you must compare with them things of the same kind in another church where there are no Carpaccios,—namely, St. Pantaleone, to which, being the nearer, you had better first direct your gondolier.

For the ceilings alone of these two churches, St. Pantaleone and St. Alvise, are worth a day's pilgrimage in their sorrowful lesson.

190. All the mischief that Paul Veronese did may be seen in the halting and hollow magnificences of them;—all the absurdities, either of painting or piety, under afflatus of vile ambition. Roof puffed up and broken through, as it were, with breath of the fiend from below, instead of pierced by heaven's light from above; the rags and ruins of Venetian skill, honor, and worship, exploded all together sky-high. Miracles of frantic mistake, of flaunting and thunderous hypocrisy,—universal lie, shouted through speaking-trumpets.

If I could let you stand for a few minutes, first under Giotto's four-square vault at Assisi, only thirty feet from the ground, the four triangles of it written with the word of God close as an illuminated missal, and then suddenly take you under these vast staggering Temples of Folly and Iniquity,

you would know what to think of "modern development" thenceforth.

191. The roof of St. Pantaleone is, I suppose, the most curious example in Europe of the vulgar dramatic effects of painting. That of St. Alvisè is little more than a caricature of the mean passion for perspective, which was the first effect of 'science' joining itself with art. And under it, by strange coincidence, there are also two notable pieces of plausible modern sentiment,—celebrated pieces by Tiepolo. He is virtually the beginner of Modernism: these two pictures of his are exactly like what a first-rate Parisian Academy student would do, setting himself to conceive the sentiment of Christ's flagellation, after having read unlimited quantities of George Sand and Dumas. It is well that they chance to be here: look thoroughly at them and their dramatic chiaroscuros for a little time, observing that no face is without some expression of crime or pain, and that everything is always put dark against light, or light against dark. Then return to the entrance of the church, where under the gallery, frameless and neglected, hang eight old pictures,—bought, the story goes, at a pawn-broker's in the Giudecca for forty sous each,*—to me among the most interesting pieces of art in North Italy, for they are the only examples I know of an entirely great man's work in extreme youth. They are Carpaccio's, when he cannot have been more than eight or ten years old, and painted then half in precocious pride, and half in play. I would give anything to know their real history. "School Pictures," C. C. call them! as if they were merely bad imitations, when they are the most unaccountable and unexpected pieces of absurd fancy that ever came into a boy's head, and scabbled, rather than painted, by a boy's hand,—yet, with the eternal master-touch in them already.

SUBJECTS.—1. Rachel at the Well. 2. Jacob and his Sons before Joseph. 3. Tobias and the Angel. 4. The

* "Originally in St. Maria della Virgine" (C. C.). Why are not the documents on the authority of which these statements are made given clearly?

Three Holy Children. 5. Job. 6. Moses, and Adoration of Golden Calf (C. C.). 7. Solomon and the Queen of Sheba. 8. Joshua and falling Jericho.

192. In all these pictures the qualities of Carpaccio are already entirely pronounced; the grace, quaintness, simplicity, and deep intentness on the meaning of incidents. I don't know if the grim statue in No. 4 is, as C. C. have it, the statue of Nebuchadnezzar's dream, or that which he erected for the three holy ones to worship,—and already I forget how the 'worship of the golden calf' according to C. C., and 'Moses' according to my note, (and I believe the inscription, for most of, if not all, the subjects are inscribed with the names of the persons represented,) are relatively portrayed. But I have not forgotten, and beg my reader to note specially, the exquisite strangeness of the boy's rendering of the meeting of Solomon and the Queen of Sheba. One would have expected the Queen's retinue, and her spice-bearing camels, and Solomon's house and his servants, and his cup-bearers in all their glory; and instead of this, Solomon and the Queen stand at the opposite ends of a little wooden bridge over a ditch, and there is not another soul near them,—and the question seems to be which first shall set foot on it!

193. Now, what can we expect in the future of the man or boy who conceives his subjects, or is liable to conceive them, after this sort? There is clearly something in his head which we cannot at all make out; a ditch must be to him the Rubicon, the Euphrates, the Red Sea,—Heaven only knows what! a wooden bridge must be Rialto in embryo. This unattended King and Queen must mean the pre-eminence of uncounseled royalty, or what not; in a word, there's no saying, and no criticising him; and the less, because his gift of color and his enjoyment of all visible things around him are so intense, so instinctive, and so constant, that he is never to be thought of as a responsible person, but only as a kind of magic mirror which flashes back instantly whatever it sees beautifully arranged, but yet will flash back commonplace things often as faithfully as others.

194. I was especially struck with this character of his, as opposed to the grave and balanced design of Luini, when after working six months with Carpaccio, I went back to the St. Stephen at Milan, in the Monasterio Maggiore. In order to do justice to either painter, they should be alternately studied for a little while. In one respect, Luini greatly gains, and Carpaccio suffers by this trial; for whatever is in the least flat or hard in the Venetian is felt more violently by contrast with the infinite sweetness of the Lombard's harmonies, while only by contrast with the vivacity of the Venetian can you entirely feel the depth in faintness, and the grace in quietness, of Luini's chiaroscuro. But the principal point of difference is in the command which Luini has over his thoughts, every design of his being concentrated on its main purpose with quite visible art, and all accessories that would in the least have interfered with it withdrawn in merciless asceticism; whereas a subject under Carpaccio's hand is always just as it would or might have occurred in nature; and among a myriad of trivial incidents, you are left, by your own sense and sympathy, to discover the vital one.

195. For instance, there are two small pictures of his in the Brera gallery at Milan, which may at once be compared with the Luinis there. I find the following notice of them in my diary for 6th September, 1876:—

“ Here, in the sweet air, with a whole world in ruin round me. The misery of my walk through the Brera yesterday no tongue can tell; but two curious lessons were given me by Carpaccio. The first, in his preaching of St. Stephen—Stephen up in the corner where nobody would think of him; the doctors, one in lecture throne, the rest in standing groups mostly—Stephen's face radiant with true soul of heaven,—the doctors, not monsters of iniquity at all, but superbly true and quiet studies from the doctors of Carpaccio's time; doctors of this world—not one with that look of heaven, but respectable to the uttermost, able, just, penetrating: a complete assembly of highly trained old Oxford men, but with more intentness. The second, the Virgin going up to the temple;

and under the steps of it, a child of ten or twelve with his back to us, dressed in a parti-colored, square-cut robe, holding a fawn in leash, at his side a rabbit; on the steps under the Virgin's feet a bas-relief of fierce fight of men with horned monsters like rampant snails: one with a conger-eel's body, twining round the limb of the man who strikes it."

196. Now both these pictures are liable to be passed almost without notice; they scarcely claim to be compositions at all; but the one is a confused group of portraits; the other, a quaint piece of grotesque, apparently without any meaning, the principal feature in it, a child in a parti-colored cloak. It is only when, with more knowledge of what we may expect from the painter, we examine both pictures carefully, that the real sense of either comes upon you. For the heavenly look on the face of Stephen is not set off with raised light, or opposed shade, or principality of place. The master trusts only to what nature herself would have trusted in—expression pure and simple. If you cannot see heaven in the boy's mind, without any turning on of the stage lights, you shall not see it at all.

There is some one else, however, whom you may see, on looking carefully enough. On the opposite side of the group of old doctors is another youth, just of Stephen's age. And as the face of Stephen is full of heavenly rapture, so that of his opposite is full of darkest wrath,—the religious wrath which all the authority of the conscience urges, instead of quenching. The old doctors hear Stephen's speech with doubtful pause of gloom; but this youth has no patience,—no endurance for it. He will be the first to cry, Away with him,—“Whosoever will cast a stone at him, let them lay their mantle at my feet.”

Again—looking again and longer at the other pictures, you will first correct my mistake of writing “fawn”—discovering the creature held by the boy to be a unicorn.* Then you will at once know that the whole must be symbolic; and looking for the meaning of the unicorn, you find it signifies chas-

* Corrected for me by Mr. C. F. Murray.

tity; and then you see that the bas-relief on the steps, which the little Virgin ascends, must mean the warring of the old strengths of the world with lust: which theme you will find presently taken up also and completed by the symbols of St. George's Chapel.

197. If now you pass from these pictures to any of the Luini frescoes in the same gallery, you will at once recognize a total difference in conception and treatment. The thing which Luini wishes you to observe is held forth to you with direct and instant proclamation. The saint, angel, or Madonna, is made central or principal; every figure in the surrounding group is subordinate, and every accessory subdued or generalized. All the precepts of conventional art are obeyed, and the invention and originality of the master are only shown by the variety with which he adorns the commonplace,—by the unexpected grace with which he executes what all have done,—and the sudden freshness with which he invests what all have thought.

198. This external difference in the manner of the two painters is connected with a much deeper element in the constitution of their minds. To Carpaccio, whatever he has to represent must be a reality; whether a symbol or not, afterwards, is no matter, the first condition is that it shall be real. A serpent, or a bird, may perhaps mean iniquity or purity; but primarily, they must have real scales and feathers. But with Luini, everything is primarily an idea, and only realized so far as to enable you to understand what is meant. When St. Stephen stands beside Christ at His scourging, and turns to us who look on, asking with unmistakable passion, "Was ever sorrow like this sorrow?" Luini does not mean that St. Stephen really stood there; but only that the thought of the saint who first saw Christ in glory may best lead us to the thought of Christ in pain. But when Carpaccio paints St. Stephen preaching, he means to make us believe that St. Stephen really did preach, and as far as he can, to show us exactly how he did it.

199. And, lastly, to return to the point at which we left

him. His own notion of the way things happened may be a very curious one, and the more so that it cannot be regulated even by himself, but is the result of the singular power he has of seeing things in vision as if they were real. So that when, as we have seen, he paints Solomon and the Queen of Sheba standing at opposite ends of a wooden bridge over a ditch, we are not to suppose the two persons are less real to him on that account, though absurd to us; but we are to understand that such a vision of them did indeed appear to the boy who had passed all his dawning life among wooden bridges, over ditches; and had the habit besides of spiritualizing, or reading like a vision, whatever he saw with eyes either of the body or mind.

The delight which he had in this faculty of vision, and the industry with which he cultivated it, can only be justly estimated by close examination of the marvelous picture in the Correr Museum, representing two Venetian ladies with their pets.

200. In the last general statement I have made of the rank of painters, I named two pictures of John Bellini, the Madonna in San Zaccaria, and that in the sacristy of the Frari, as, so far as my knowledge went, the two best pictures in the world. In that estimate of them I of course considered as one chief element, their solemnity of purpose—as another, their unpretending simplicity. Putting aside these higher conditions, and looking only to perfection of execution and essentially artistic power of design, I rank this Carpaccio above either of them, and therefore, as in these respects, the best picture in the world. I know no other which unites every namable quality of painter's art in so intense a degree—breadth with minuteness, brilliancy with quietness, decision with tenderness, color with light and shade: all that is faithfulest in Holland, fancifulest in Venice, severest in Florence, naturalest in England. Whatever De Hooghe could do in shade, Van Eyck in detail—Giorgione in mass—Titian in color—Bewick and Landseer in animal life, is here

at once; and I know no other picture in the world which can be compared with it.

It is in tempera, however, not oil: and I must note in passing that many of the qualities which I have been in the habit of praising in Tintoret and Carpaccio, as consummate achievements in oil-painting, are, as I have found lately, either in tempera altogether, or tempera with oil above. And I am disposed to think that ultimately tempera will be found the proper material for the greater number of most delightful subjects.

201. The subject, in the present instance, is a simple study of animal life in all its phases. I am quite sure that this is the meaning of the picture in Carpaccio's own mind. I suppose him to have been commissioned to paint the portraits of two Venetian ladies—that he did not altogether like his models, but yet felt himself bound to do his best for them, and contrived to do what perfectly satisfied them and himself too. He has painted their pretty faces and pretty shoulders, their pretty dresses and pretty jewels, their pretty ways and their pretty playmates—and what would they have more?—he himself secretly laughing at them all the time, and intending the spectators of the future to laugh for ever.

It may be, however, that I err in supposing the picture a portrait commission. It may be simply a study for practice, gathering together every kind of thing which he could get to sit to him quietly, persuading the pretty ladies to sit to him in all their finery, and to keep their pets quiet as long as they could, while yet he gave value to this new group of studies in a certain unity of satire against the vices of society in his time.

202. Of this satirical purpose there cannot be question for a moment, with any one who knows the general tone of the painter's mind, and the traditions among which he had been educated. In all the didactic painting of mediæval Christianity, the faultful luxury of the upper classes was symbolized by the knight with his falcon, and lady with her pet dog, both in splendid dress. This picture is only the elaboration

memory of the oldest inhabitant, or within the last hundred years, have advanced a couple of yards or so. At that rate, those two streams, considered as navvies, are proceeding with the works in hand;—to that extent they are indeed filling up the lake, and to that extent sub-aerially denuding the mountains. But now, I must ask your attention very closely: for I have a strict bit of logic to put before you, which the best I can do will not make clear without some helpful effort on your part.

18. The streams, we say, by little and little, are filling up the lake. They did not cut out the basin of that. Something else must have cut out that, then, before the streams began their work. Could the lake, then, have been cut out all by itself, and none of the valleys that lead to it? Was it punched into the mass of elevated ground like a long grave, before the streams were set to work to cut Yewdale down to it?

19. You don't for a moment imagine that. Well, then, the lake and the dales that descend with it, must have been cut out together. But if the lake not by the streamlets, then the dales not by the streamlets? The streamlets are the consequence of the dales then,—not the causes; and the sub-aerial denudation to which you owe your beautiful lake scenery, must have been something, not only different from what is going on now, but, in one half of it at least, *contrary* to what is going on now. Then, the lakes which are now being filled up, were being cut down; and as probably, the mountains now being cut down, were being cast up.

20. Don't let us go too fast, however. The streamlets are now, we perceive, filling up the big lake. But are they not, then, also filling up the little ones? If they don't cut Coniston Water deeper, do you think they are cutting Mr. Marshall's tarns deeper? If not Mr. Marshall's tarns deeper, are they cutting their own little pools deeper? This pool by which we are standing—we have seen it is inconceivable how it is not filled up,—much more it is inconceivable that it should be cut deeper down. You can't suppose that the same stream which is filling up the Coniston Lake below

Mr. Bowness's is cutting out another Coniston Lake above Mr. Bowness's? The truth is that, above the bridge as below it, and from their sources to the sea, the streamlets have the same function, and are filling, not deepening, alike tarn, pool, channel, and valley.

21. And that being so, think how you have been misled by seeking knowledge far afield, and for vanity's sake, instead of close at home, and for love's sake. You must go and see Niagara, must you?—and you will brick up and make a foul drain of the sweet streamlet that ran past your doors. And all the knowledge of the waters and the earth that God meant for you, flowed with it, as water of life.

Understand, then, at least, and at last, to-day, Niagara is a vast Exception—and Deception. The true cataracts and falls of the great mountains, as the dear little cascades and leaplets of your own rills, fall where they fell of old;—that is to say, wherever there's a hard bed of rock for them to jump over. They don't cut it away—and they can't. They do form pools *beneath* in a mystic way,—they excavate them to the depth which will break their fall's force—and then they excavate no more.*

We must look, then, for some other chisel than the streamlet; and therefore, as we have hitherto interrogated the waters at their work, we will now interrogate the hills, in their patience.

22. The principal flank of Yewdale is formed by a steep range of crag, thrown out from the greater mass of Wetherlam, and known as Yewdale Crag.

It is almost entirely composed of basalt, or hard volcanic ash; and is of supreme interest among the southern hills of the lake district, as being practically the first rise of the great mountains of England, out of the lowlands of England.

And it chanced that my own study window being just opposite this crag, and not more than a mile from it as the bird flies, I have it always staring me, as it were, in the face,

* Else, every pool would become a well, of continually increasing depth.

English paterfamilias to some inquiring member of his family, in the hearing of my assistant, then at work on this picture. Which saying is indeed supremely true of us nationally. But without requiring us to know anything, this picture puts before us some certainties respecting mediæval Catholicism, which we shall do well to remember.

In the first place, you will find that all these bishops and cardinals are evidently portraits. Their faces are too varied—too quiet—too complete—to have been invented by even the mightiest invention. Carpaccio was simply taking the features of the priesthood of his time, throwing aside, doubtless, here and there, matter of offence;—the too settled gloom of one, the evident subtlety of another, the sensuality of a third; but finding beneath all that, what was indeed the constitutional power and pith of their minds,—in the deep of them, rightly thoughtful, tender, and humble.

There is one curious little piece of satire on the fault of the Church in making cardinals of too young persons. The third, in the row of four behind St. Ursula, is a mere boy, very beautiful, but utterly careless of what is going on, and evidently no more fit to be a cardinal than a young calf would be. The stiffness of his white dress, standing up under his chin as if he had only put it on that day, draws special attention to him.

The one opposite to him also, without this piece of white dress, seems to be a mere man of the world. But the others have all grave and refined faces. That of the Pope himself is quite exquisite in its purity, simple-heartedness, and joyful wonder at the sight of the child kneeling at his feet, in whom he recognizes one whom he is himself to learn of, and follow.

205. The more I looked at this picture, the more I became wonderstruck at the way the faith of the Christian Church has been delivered to us through a series of fables, which, partly meant as such, are over-ruled into expressions of truth—but how much truth, it is only by our own virtuous life that we can know. Only remember always in criticising

such a picture, that it no more means to tell you as a fact* that St. Ursula led this long procession from the sea and knelt thus before the Pope, than Mantegna's St. Sebastian means that the saint ever stood quietly and happily, stuck full of arrows. It is as much a mythic symbol as the circles and crosses of the Carita; but only Carpaccio carries out his symbol into delighted realization, so that it begins to be absurd to us in the perceived impossibility. But it only signifies the essential truth of joy in the Holy Ghost filling the whole body of the Christian Church with visible inspiration, sometimes in old men, sometimes in children; yet never breaking the laws of established authority and subordination—the greater saint blessed by the lesser, when the lesser is in the higher place of authority, and all the common and natural glories and delights of the world made holy by its influence: field, and earth, and mountain, and sea, and bright maiden's grace, and old men's quietness,—all in one music of moving peace—the very procession of them in their multitude like a chanted hymn—the purple standards drooping in the light air that yet can lift St. George's gonfalon;† and the angel Michael alighting—himself seen in vision instead of his statue—on the Angel's tower, sheathing his sword.

206. What I have to say respecting the picture that closes the series, the martyrdom and funeral, is partly saddening, partly depreciatory, and shall be reserved for another place. The picture itself has been more injured and repainted than any other (the face of the recumbent figure entirely so); and though it is full of marvelous passages, I hope that the general traveler will seal his memory of Carpaccio in the picture last described.

* If it *had* been a fact, of course he would have liked it all the better, as in the picture of St. Stephen; but though only an idea, it must be realized to the full.

† It is especially to be noted with Carpaccio, and perhaps more in this than any other of the series, that he represents the beauty of religion always in animating the present world, and never gives the charm to the clear far-away sky which is so constant in Florentine sacred pictures.

CHAPTER XI.

(By James Reddie Anderson. Edited by J. Ruskin)

THE PLACE OF DRAGONS.

I.—EDITOR'S PREFACE.

207. AMONG the many discomforts of advancing age, which no one understands till he feels them, there is one which I seldom have heard complained of, and which, therefore, I find unexpectedly disagreeable. I knew, by report, that when I grew old I should most probably wish to be young again; and, very certainly, be ashamed of much that I had done, or omitted, in the active years of life. I was prepared for sorrow in the loss of friends by death; and for pain, in the loss of myself, by weakness or sickness. These, and many other minor calamities, I have been long accustomed to anticipate; and therefore to read, in preparation for them, the confessions of the weak, and the consolations of the wise.

208. But, as the time of rest, or of departure, approaches me, not only do many of the evils I had heard of, and prepared for, present themselves in more grievous shapes than I had expected; but one which I had scarcely ever heard of, torments me increasingly every hour.

I had understood it to be in the order of things that the aged should lament their vanishing life as an instrument they had never used, now to be taken away from them; but not as an instrument, only then perfectly tempered and sharpened, and snatched out of their hands at the instant they could have done some real service with it. Whereas, my own feeling, now, is that everything which has hitherto happened to me, or been done by me, whether well or ill, has

been fitting me to take greater fortune more prudently, and do better work more thoroughly. And just when I seem to be coming out of school—very sorry to have been such a foolish boy, yet having taken a prize or two, and expecting to enter now upon some more serious business than cricket, I am dismissed by the Master I hoped to serve; with a—“That’s all I want of you, sir.”

209. I imagine the sorrowfulness of these feelings must be abated, in the minds of most men, by a pleasant vanity in their hope of being remembered as the discoverers, at least, of some important truth, or the founders of some exclusive system called after their own names. But I have never applied myself to discover anything, being content to praise what had already been discovered; and the only doctrine or system peculiar to me is the abhorrence of all that is doctrinal instead of demonstrable, and of all that is systematic instead of useful: so that *no true* disciple of mine will ever be a ‘Ruskinian’!—he will follow, not me, but the instincts of his own soul, and the guidance of its Creator. Which, though not a sorrowful subject of contemplation in itself, leaves me none of the common props and crutches of halting pride. I know myself to be a true master, because my pupils are well on the way to do better than I have done; but there is not always a sense of extreme pleasure in watching their advance, where one has no more strength, though more than ever the will, to companion them.

210. Not *always*—be it again confessed; but when I first read the legend of St. George, which here follows, my eyes grew wet with tears of true delight; first, in the knowledge of so many beautiful things, at once given to me; and then in the surety of the wide good that the work thus begun would spring up into, in ways before wholly unconceived by me. It was like coming to the brow of some healthy moorland, where here and there one had watched, or helped, the reaper of some patch of thinly scattered corn; and seeing suddenly a great plain white to the harvest, far as the horizon. That the first-fruits of it might be given in no man-

ner of self-exaltation—Fors has determined that my young scholar should have his part of mortification as well as I, just in the degree in which either of us may be mortified in the success of others. For we both thought that the tracing of this chain of tradition in the story of St. George was ours alone; and that we had rather to apprehend the doubt of our result, than the dispute of our originality. Nor was it, indeed, without extreme discomfiture and vexation that after I had been hindered from publishing this paper for upwards of ten months from the time it was first put into my hands, I read, on a bright autumn morning at Brantwood, when I expected the author's visit, (the first he had made to me in my own house,) a paragraph in the 'Spectator,' giving abstract of exactly the same historical statements, made by a French antiquary, M. Clermont-Ganneau.

211. I am well assured that Professor Airey was not more grieved, though I hope he was more conscience-stricken, for his delay in the publication of Mr. Adams' calculations, than I was, for some days after seeing this anticipation of my friend's discoveries. He relieved my mind himself, after looking into the matter, by pointing out to me that the original paper had been read by M. Clermont-Ganneau, before the Académie des Inscriptions et Belles-lettres of Paris, two months before his own investigations had begun, and that all question of priority was, therefore, at an end. It remained for us only to surrender, both of us, what complacency we should have had in first announcing these facts; and to take a nobler pleasure in the confirmation afforded of their truth by the coincidence, to a degree of accuracy which neither of us had ever known take place before in the work of two entirely independent investigators, between M. Clermont-Ganneau's conclusions and our own. I therefore desired my friend to make no alterations in his paper as it then stood, and to make no reference himself to the French author, but to complete his own course of investigation independently, as it was begun. We shall have some bits all to ourselves, before we have done; and in the meantime give reverent

thanks to St. George, for his help, to France as well as to England, in enabling the two nations to read together the truth of his tradition, on the distant clouds of Heaven and time.

212. Mr. Anderson's work remains entirely distinct, in its interpretation of Carpaccio's picture by this tradition, and since at the mouth of two—or *three*, witnesses shall a word be established, Carpaccio himself thus becomes the third, and the chief, witness to its truth; and to the power of it on the farthest race of the Knights of Venice.

The present essay treats only of the first picture in the chapel of St. George. I hope it may now be soon followed by its author's consecutive studies of the other subjects, in which he has certainly no priority of effort to recognize, and has, with the help of the good Saints, and no other persons, done all that we shall need.

J. RUSKIN.

BRANTWOOD, 26th January, 1878.

II.—THE PLACE OF DRAGONS.

“Ἐννοήσας ὅτι τὸν ποιητὴν δέοι, εἰπερ μέλλοι ποιητῆς αἶναι, ποιεῖν μύθους ἀλλ' οὐ λόγους.”—*Plat. Phædo*, 61, B.

213. On the eve of the Feast of the Annunciation, in the year of Christ 1452, the Council of Ten, by decree, permitted certain Dalmatians settled in Venice to establish a Lay Brotherhood, called of St. George and of St. Tryphonius. The brothers caused to be written in illuminated letters on the first pages of their minute book their ‘memorandum of association.’ They desired to “hold united in sacred bonds men of Dalmatian blood, to render homage to God and to His saints by charitable endeavors and religious ceremonies, and to help by holy sacrifices the souls of brothers alive and dead.” The brotherhood gave, and continues to give material support to the poor of Dalmatian blood in Venice; money to the old, and education to the young. For prayer and adoration it built the chapel known as St. George's of the Slav-

nians. In this chapel, during the first decade of the sixteenth century, Carpaccio painted a series of pictures. First, three from the story of St. Jerome—not that St. Jerome was officially a patron of the brothers, but a fellow-countryman, and therefore, as it were, an ally;—then three from the story of St. George, one from that of St. Tryphonius, and two smaller from the Gospel History. Allowing for doorways, window, and altar, these nine pictures fill the circuit of the chapel walls.

Those representing St. George are placed opposite those of St. Jerome. In the ante-chapel of the Ducal Palace, Tintoret, who studied, not without result otherwise, these pictures of Carpaccio's, has placed the same saints over against each other. To him, as to Carpaccio, they represented the two sides, practical and contemplative, of faithful life. This balance we still, though with less completeness, signify by the linked names of Martha and Mary; and Plato has expressed it fully by the respective functions assigned in his ideal state to philosophers and guardians. The seer "able to grasp the eternal," "spectator of all time and of all existence,"—you may see him on your right as you enter this chapel,—recognizes and declares God's Law: the guardian obeys, enforces, and, if need be, fights for it.

214. St. George, Husbandman by name, and "*Τροπαιοφόρος*," Triumphant Warrior, by title, secures righteous peace, turning his spear into a pruning-hook for the earthly nature of man. He is also to be known as "*Μεγαλομάρτυρ*," by his deeds, the great witness for God in the world, and "*τῶν ἀθλήτων ὁ μέγας Ταξιάρχης*," marshal and leader of those who strive to obtain an incorruptible crown.* St. Jerome, the seer, learned also in all the wisdom of the heathen, is, as Plato tells us such a man should be. Lost in his longing after "the universal law that knits human things with divine,"† he shows himself gentle

* These titles are taken from the earliest (Greek) records of him. The last corresponds to that of Baron Bradwardine's revered 'Mareschal-Duke.'

† Plat. Rep., VI. 486 A.

and without fear, having no terror even of death.* In the second picture on our right here we may see with how great quiet the old man has laid himself down to die, even such a pillow beneath his head as was under Jacob's upon that night of vision by the place which he thenceforward knew to be the "House of God," though "the name of it was called 'Separation' † at the first." ‡ The fantastic bilingual interpretation of Jerome's name given in the 'Golden Legend,' standard of mediæval mythology, speaks to the same effect: "Hieronimus, quod est Sanctum Nemus," Holy Grove, "a nemore ubi aliquando conversatus est," from that one in which he sometime had his walk—"Se dedit et sacri nemoris perpalluit umbra," § but not beneath the laurels of "l'un giogo de Parnaso," || to whose inferior summit, only, Dante in that line alludes, nor now under olive boughs—

"where the Attick bird
Trills her thick-warbled notes the summer long,"

but where, once on a winter night, shepherds in their vigil heard other singing, where the palm bearer of burdens, witness of victorious hope, offers to every man, for the gathering, fruit unto everlasting life. "Ad Bethleem oppidum remeavit, ubi, prudens animal, ad præsepe Domini se obtulit permansurum." "He went, as though home, to the town of Bethlehem, and like a wise domestic creature presented himself at his Master's manger to abide there."

* Plat. Rep., VI. 486 B.

† Luz. This word stands also for the almond tree, flourishing when desire fails, and "man goeth to his long home."

‡ In the 21st and 22nd Cantos of the 'Paradise,' Dante, too, connects the dream of Jacob with the ascetic, living where "e consecrato un ermo, Che suole esser disposto a sola latria." "This is in a sphere of heaven where "la dolce sinfonia del Paradiso" is heard by mortal ears only as overmastering thunder, and where the pilgrim is taught that no created vision, not the seraph's "che in Dio piu l'occhio ha fisso," may read that eternal statute by whose appointment spirits of the saints go forth upon their Master's business and return to Him again.

§ Dante, 'Eclogues,' i. 30.

|| Dante, 'Par.' I 16.

215. After the pictures of St. George comes that of St. Tryphonius, telling how the prayer of a little child shall conquer the basilisk of earthly pride, though the soldier's spear cannot overthrow *this* monster, nor maiden's zone bind him. After the picture of St. Jerome we are given the Calling of Matthew, in which Carpaccio endeavors to declare how great joy fills the fugitive servant of Riches when at last he does homage as true man of another Master. Between these two is set the central picture of the nine, small, dark itself, and in a dark corner, in arrangement following pretty closely the simple tradition of earlier Venetian masters. The scene is an untilled garden—the subject, the Agony of our Lord.

The prominent feature of the stories Carpaccio has chosen—setting aside at present the two gospel incidents—is that, though heartily Christian, they are historically drawn quite as much from Greek as from mediæval mythology. Even in the scenes from St. Jerome's life, a well-known classical tale, which mingled with his legend, is introduced, and all the paintings contain much ancient religious symbolism. St. Tryphonius' conquest of the basilisk is, as we shall see, almost purely a legend of Apollo. From the Middle Ages onwards it has been often remarked how closely the story of St. George and the Dragon resembles that of Perseus and Andromeda. It does not merely resemble,—it *is* that story.

216. The earliest and central shrine of St. George,—his church, famous during the crusades, at Lydda,—rose by the stream which Pausanias, in the second century, saw running still “red as blood,” because Perseus had bathed there after his conquest of the sea monster. From the neighboring town of Joppa, as Pliny tells us, the skeleton of that monster was brought by M. Scaurus to Rome in the first century B.C. St. Jerome was shown on this very coast a rock known by tradition as that to which Andromeda had been bound. Before his day Josephus had seen in that rock the holes worn by her fetters.

In the place chosen by fate for this, the most famous and finished example of harmony between the old faith and the

new, there is a strange double piece of real mythology. Many are offended when told that with the best teaching of the Christian Church Gentile symbolism and story have often mingled. Some still lament vanished dreams of the world's morning, echo the

“Voice of weeping heard, and loud lament,”

by woodland altar and sacred thicket. But Lydda was the city where St. Peter raised from death to doubly-marvelous service that loved garment-maker, full of good works, whose name was Wild Roe—Greek* type of dawn with its pure visions. And Lydda “was nigh unto Joppa,”† where was let down from heaven the mystic sheet, full of every kind of living creature, (this, centuries before, a symbol familiar to the farthest east,‡) for lasting witness to the faithful that through His travailing creation God has appointed all things to be helpful and holy to man, has made nothing common or unclean.

217. There is a large body of further evidence proving the origin of the story of St. George and the Dragon from that of Perseus. The names of certain of the persons concerned in both coincide. Secondary, or later variations in the place of the fight appear alike in both legends. For example, the scene of both is sometimes laid in Phœnicia, north of Joppa. But concerning this we may note that a mythologist of the age of Augustus,§ recounting this legend, is careful to explain that the name of Joppa has since been changed to Phœnice. The instance of most value, however—because connected with a singular identity of local names—is that account which

* The Hebrew poets, too, knew “the Hind of the glow of dawn.”

† Near Joppa the Moslem (who also reverences St. George) sees the fields of some great final contest between the Evil and the Good, upon whom the ends of the world shall have come—a contest surely that will require the presence of our warrior-marshal.

‡ Compare the illustrations on p. 44 of Didron's ‘Iconographie Chrétienne’ (English translation, p. 41).

§ Conon. Narr., XL.

takes both Perseus and St. George to the Nile delta. The Greek name of Lydda was Diospolis. Now St. Jerome speaks strangely of Alexandria as also called Diospolis, and there certainly was a Diospolis (later Lydda) near Alexandria, where "alone in Egypt," Strabo tells us, "men did not venerate the crocodile, but held it in dishonor as most hateful of living things." One of the 'Crocodile towns' of Egypt was close by this. Curiously enough, considering the locality, there was also a 'Crocodile-town' a short distance north of Joppa. In Thebes, too, the greater Diospolis, there was a shrine of Perseus, and near it another *Κροκοδείλων Πόλις*. This persistent recurrence of the name Diospolis probably points to Perseus' original identity with the sun—noblest birth of the Father of Lights. In its Greek form that name was, of course, of comparatively late imposition, but we may well conceive it to have had reference * to a local terminology and worship much more ancient. It is not unreasonable to connect too the Diospolis of Cappadocia, a region so frequently and mysteriously referred to as that of St. George's birth.

218. Further, the stories both of Perseus and of St. George are curiously connected with the Persians; but this matter, together with the saint's Cappadocian nationality, will fall to be considered in relation to a figure in the last of Carpaccio's three pictures, which will open up to us the earliest history and deepest meaning of the myth.

219. The stories of the fight given by Greeks and Christians are almost identical. There is scarcely an incident in it told by one set of writers but occurs in the account given by some member or members of the other set, even to the crowd of distant spectators Carpaccio has so dwelt upon, and to the votive altars raised above the body of the monster, with the stream of healing that flowed beside them. And while both accounts say how the saved nations rendered thanks to the Father in heaven, we are told that the heathen placed, beside His altar, altars to the Maiden Wisdom and to Hermes, while the Christians placed altars dedicated to the Maiden

* Compare the name Heliopolis given both to Baalbeck and On.

Mother and to George. Even Medusa's head did not come amiss to the mediæval artist, but set in the saint's hand became his own, fit indication of the death by which he should afterwards glorify God. And here we may probably trace the original error—if, indeed, to be called an error—by which the myth concerning Perseus was introduced into the story of our soldier-saint of the East. From the fifth century to the fifteenth, mythologists nearly all give, and usually with approval, an interpretation of the word 'gorgon' which makes it identical in meaning and derivation with 'George.' When comparatively learned persons, taught too in this special subject, accepted such an opinion and insisted upon it, we cannot be surprised if their contemporaries, uneducated or educated only in the Christian mysteries, took readily a similar view, especially when we consider the wild confusion in mediæval minds concerning the spelling of classical names. Now just as into the legend of St. Hippolytus there was introduced a long episode manifestly derived from some disarranged and misunderstood series of paintings or sculptures concerning the fate of the Greek Hippolytus,—and this is by no means a singular example, the name inscribed on the work of art being taken as evidence that it referred to the only bearer of that name then thought of—so, in all probability, it came about with St. George. People at Lydda far on into Christian times would know vaguely, and continue to tell the story, how long ago under that familiar cliff the dragon was slain and the royal maid released. Then some ruined fresco or vase painting of the event would exist, half forgotten, with the names of the characters written after Greek fashion near them in the usual superbly errant caligraphy. The Gorgon's name could scarcely fail to be prominent in a series of pictures from Perseus' history, or in this scene as an explanation of the head in his hand. A Christian pilgrim, or hermit, his heart full of the great saint, whose name as 'Triumphant' filled the East, would, when he had spelt out the lettering, at once exclaim, "Ah, here is recorded another of my patron's victories." The probability of this is enhanced

by the appearance in St. George's story of names whose introduction seems to require a similar explanation. But we shall find that the battle with the dragon, though not reckoned among St. George's deeds before the eleventh or twelfth century, is entirely appropriate to the earliest sources of his legend.

220. One other important parallel between Perseus and St. George deserves notice, though it does not bear directly upon these pictures. Both are distinguished by their burnished shields. The hero's was given him by Athena, that, watching in it the reflected figure of the Gorgon,* he might strike rightly with his sickle-sword, nor need to meet in face the mortal horror of her look. The saint's bright shield rallied once and again a breaking host of crusaders, as they seemed to see it blaze in their van under Antioch † wall, and by the breaches of desecrated Zion. But his was a magic mirror; work of craftsmen more cunning than might obey the Queen of Air. Turned to visions of terror and death, it threw back by law of diviner optics an altered image—the crimson blazon of its cross.‡ So much for the growth of the dragon legend, fragment of a most ancient faith, widely spread and variously localized, thus made human by Greek, and passionately spiritual by Christian, art.

221. We shall see later that Perseus is not St. George's only blood-relation among the powers of earlier belief; but for Englishmen there may be a linked association, if more difficult to trace through historic descent, yet, in its perfect harmony, even more pleasantly strange. The great heroic poem which remains to us in the tongue of our Anglo-Saxon ancestors—intuitive creation and honorable treasure for ever

* The allegorizing Platonists interpret Medusa as a symbol of man's sensual nature. This we shall find to be Carpaccio's view of the dragon of St. George.

† Acts xi. 26.

‡ Compare the strange reappearance of the Æginetan Athena as St. John on the Florin. There the arm that bore the shield now with pointed finger gives emphasis and direction to the word 'Behold.'

of simple English minds—tells of a warrior whose names, like St. George's, are 'Husbandman' and 'Glorious,' whose crowning deed was done in battle with the poisonous drake. Even a figure very important in St. George's history—one we shall meet in the third of these pictures—is in this legend not without its representative—that young kinsman of the Saxon hero, "among the faithless" earls "faithful only he," who holds before the failing eyes of his lord the long rusted helm and golden standard, "wondrous in the grasp," and mystic vessels of ancient time, treasure redeemed at last by a brave man's blood from the vaulted cavern of the "Twilight Flyer." For Beowulf indeed slays the monster, but wins no princess, and dies of the fiery venom that has scorched his limbs in the contest. Him there awaited such fires alone—seen from their bleak promontory afar over northern seas, as burned once upon the ridge of Cæta, his the Heraklean crown of poplar leaves only, blackened without by the smoke of hell, and on the inner side washed white with the sweat of a laborer's brow.* It is a wilder form of the great story told by seers † who knew only the terror of nature and the daily toil of men, and the doom that is over these for each of us. The royal maiden for ever set free, the sprinkling of pure water unto eternal life,—this only such eyes may discern as by happier

* There was in his People's long lament for Beowulf one word about the hidden future, "when he must go forth from the body to become. . . ." What to become we shall not know, for fate has struck out just the four letters that would have told us.

† 'Beowulf' was probably composed by a poet nearly contemporary with Bede. The dragon victory was not yet added to the glories of St. George. Indeed, Pope Gelasius, in Council, more than a couple of centuries before, had declared him to be one of those saints "whose names are justly revered among men, but whose deeds are known to God only." Accordingly the Saxon teacher invokes him somewhat vaguely thus:—

"Invicto mundum qui sanguine tennis
Infinita refers, Georgi Sancte, trophæa!"

Yet even in these words we see a reverence similar to Carpaccio's for St. George as patron of purity. And the deeds "known to God alone" were in His good time revealed to those to whom it pleased Him.

fate have also rested upon tables whose divine blazon is the law of heaven; such hearts alone conceive, as, trained in some holy city of God, have among the spirits of just men made perfect, learned to love His commandment.

222. Such, then, was the venerable belief which Carpaccio set himself to picture in the Chapel of St. George. How far he knew its wide reign and ancient descent, or how far, without recognizing these, he intuitively acted as the knowledge would have led him, and was conscious of lighting up his work by Gentile learning and symbolism, must to us be doubtful. It is not doubtful that, whether with open eyes, or in simple obedience to the traditions of his training, or, as is most likely, loyal as well in wisdom as in humility, he did so illumine it, and very gloriously. But painting this glory, he paints with it the peace that over the king-threatened cradle of another Prince than Perseus, was proclaimed to the heavy-laden.

223. The first picture on the left hand as we enter the chapel shows St. George on horseback, in battle with the Dragon. Other artists, even Tintoret,* are of opinion that the Saint rode a white horse. The champion of Purity must, they hold, have been carried to victory by a charger ethereal and splendid as a summer cloud. Carpaccio believed that his horse was a dark brown. He knew that this color is generally the mark of greatest strength and endurance; he had no wish to paint here an ascetic's victory over the flesh. St. George's warring is in the world, and for it; he is the enemy of its desolation, the guardian of its peace; and all vital force of the lower Nature he shall have to bear him into battle; submissive indeed to the spur, bitted and bridled for obedience, yet honorably decked with trappings whose studs and bosses are fair carven faces. But though of color prosaically useful, this horse has a deeper kinship with the air. Many of the ancient histories and vase-paintings tell us that Perseus, when he saved Andromeda, was mounted on Pegasus. Look now here at the mane and tail, swept still back upon

* In the ante-chapel of the Ducal Palace.

the wind, though already the passionate onset has been brought to sudden pause in that crash of encounter. Though the flash of an earthly fire be in his eye, its force in his limbs—though the clothing of his neck be Chthonian thunder—this steed is brother, too, to that one, born by farthest ocean wells, whose wild mane and sweeping wings stretch through the firmament as light is breaking over earth. More: these masses of billowy hair tossed upon the breeze of heaven are set here for a sign that this, though but one of the beasts that perish, has the roots of his strong nature in the power of heavenly life, and is now about His business who is Lord of heaven and Father of men. The horse is thus, as we shall see, opposed to certain other signs, meant for our learning, in the dream of horror round this monster's den.*

224. St. George, armed to his throat, sits firmly in the saddle. All the skill gained in a chivalric youth, all the might of a soldier's manhood, he summons for this strange tourney, stooping slightly and gathering his strength as he drives the spear-point straight between his enemy's jaws. His face is very fair, at once delicate and powerful, well-bred in the fullest bearing of the words; a Plantagenet face in general type, but much refined. The lower lip is pressed upwards, the brow knit, in anger and disgust partly, but more in care—and care not so much concerning the fight's ending, as that this thrust in it shall now be rightly dealt. His hair flows in bright golden ripples, strong as those of a great spring whose up-welling waters circle through some clear pool, but it breaks at last to float over brow and shoulders in tendrils of living light.† Had Carpaccio been aware that St. George and Perseus are, in this deed, one; had he even held, as surely as Professor Müller finds reason to do, that at first Perseus was but

* This cloudlike effect is through surface rubbing perhaps more marked now than Carpaccio intended, but must always have been most noticeable. It produces a very striking resemblance to the Pegasus or the Ram of Phrixus on Greek vases.

† At his martyrdom St. George was hung up by his hair to be scourged,

the sun in his strength—for very name, being called “the Brightly-Burning”—this glorious head could not have been, more completely than it is, made the center of light in the picture. In Greek works of art, as a rule, Perseus, when he rescues Andromeda, continues to wear the peaked Phrygian cap, dark helmet of Hades,* by whose virtue he moved, invisible, upon Medusa through coiling mists of dawn. Only after victory might he unveil his brightness. But about George from the first is no shadow. Creeping thing of keenest eye shall not see that splendor which is so manifest, nor with guile spring upon it unaware, to its darkening. Such knowledge alone for the dragon—dim sense as of a horse with its rider, moving to the fatal lair, hope, pulseless,—not of heart, but of talon and maw—that here is yet another victim, then only between his teeth that keen lance-point, thrust far before the Holy Apparition at whose rising the Power of the Vision of Death waxes faint and drops those terrible wings that bore under their shadow, not healing, but wounds for men.

225. The spear pierces the base of the dragon's brain, its point penetrating right through and standing out at the back of the head just above its junction with the spine. The shaft breaks in the shock between the dragon's jaws. This shivering of St. George's spear is almost always emphasized in pictures of him—sometimes, as here, in act, oftener by position of the splintered fragments prominent in the foreground. This is no tradition of ancient art, but a purely mediæval incident, yet not, I believe, merely the vacant reproduction of a sight become familiar to the spectator of tournaments. The spear was type of the strength of human wisdom. This checks the enemy in his attack, subdues him partly, yet is shattered, having done so much, and of no help in perfecting the victory or in reaping its reward of joy. But at the Saint's “loins, girt about with truth,” there hangs his holier weapon—the Sword of the Spirit, which is the Word of God.

* Given by Hermes (Chthonios).

226. The Dragon * is bearded like a goat,† and essentially a thorny‡ creature. Every ridge of his body, wings, and head, bristles with long spines, keen, sword-like, of an earthy brown color or poisonous green. But the most truculent-looking of all is a short, strong, hooked one at the back of his head, close to where the spear-point protrudes.§ These thorns are partly the same vision—though seen with even clearer eyes, dreamed by a heart yet more tender—as Spenser saw in the troop of urchins coming up with the host of other lusts against the Castle of Temperance. They are also symbolic as weeds whose deadly growth brings the power of earth to waste and chokes its good. These our Lord of spiritual husbandmen must for preliminary task destroy. The agricultural process consequent on this first step in tillage we shall see in the next picture, whose subject is the triumph of the plowshare sword, as the subject of this one is the triumph of the pruning-hook spear.|| To an Italian of Carpaccio's time, further, spines—etymologically connected in Greek and Latin, as in English, with the backbone—were an acknowledged symbol of the lust of the flesh, whose defeat the artist has here set himself to paint. The mighty coiling tail, as of a giant eel,¶ carries out the portraiture. For this, loathsome as the body is full of horror, takes the place of the snails ranked by Spenser in line beside his urchins. Though

* It should be noticed that St. George's dragon is never human-headed, as often St. Michael's.

† So the Theban dragon on a vase, to be afterwards referred to.

‡ The following are Lucian's words concerning the monster slain by Perseus, "*Καὶ τὸ μὲν ἐπεισι πεφρικὸς ταῖς ἀκανθοῖς καὶ δεδιττόμενον τῷ χάσματι.*"

§ I do not know the meaning of this here. It bears a striking resemblance to the crests of the dragon of Triptolemus on vases. These crests signify primarily the springing blade of corn. That, here, has become like iron.

|| For "pruning-hooks" in our version, the Vulgate reads "ligones"—tools for preparatory clearance.

¶ The eel was Venus' selected beast-shape in the "Flight of the Gods." Boccaccio has enlarged upon the significance of this. Gen. Deor. IV. 68. One learns from other sources that a tail was often symbol of sensuality.

the monster, half-rampant, rises into air, turning claw and spike and tooth towards St. George, we are taught by this gray abomination twisting in the slime of death that the threatened destruction is to be dreaded not more for its horror than for its shame.

227. Behind the dragon lie, naked, with dead faces turned heavenwards, two corpses—a youth's and a girl's, eaten away from the feet to the middle, the flesh hanging at the waist in loathsome rags torn by the monster's teeth. The man's thigh and upper-arm bones snapped across and sucked empty of marrow, are turned to us for special sign of this destroyer's power. The face, foreshortened, is drawn by death and decay into the ghastly likeness of an ape's.* The girl's face—seen in profile—is quiet and still beautiful; her long hair is heaped as for a pillow under her head. It does not grow like St. George's, in living ripples, but lies in fantastic folds, that have about them a savor, not of death only, but of corruption. For all its pale gold, they at once carry back one's mind to Turner's Pytho, where the arrow of Apollo strikes him in the midst, and, piercing, reveals his foulness. Round her throat cling a few torn rags, these only remaining of the white garment that clothed her once. Carpaccio was a diligent student of ancient mythology. Boccaccio's very learned book on the Gods was the standard classical dictionary of those days in Italy. It tells us how the Cyprian Venus—a mortal princess in reality, Boccaccio holds—to cover her own disgrace led the maidens of her country to the sea-sands, and, stripping them there, tempted them to follow her in shame. I suspect Carpaccio had this story in his mind, and meant

* In the great Botticelli of the National Gallery, known as Mars and Venus, but almost identical with the picture drawn afterwards by Spenser of the Bower of Acrasia, the sleeping youth wears an expression, though less strongly marked, very similar to that of this dead face here. Such brutish paralysis is with scientific accuracy made special to the male. It may be noticed that the power of venomously wounding, expressed by Carpaccio through the dragon's spines, is in the Botticelli signified by the swarm of hornets issuing from the tree-trunk by the young man's head.

here to reveal in true dragon aspect the Venus that once seemed fair, to show by this shore the fate of them that follow her. It is to be noticed that the dead man is an addition made by Carpaccio to the old story. Maidens of the people, the legend-writers knew, had been sacrificed before the Princess; but only he, filling the tale—like a cup of his country's fairly fashioned glass—full of the wine of profitable teaching, is aware that men have often come to these yellow sands to join there in the dance of death—not only, nor once for all, this Saint who clasped hands with Victory. Two ships in the distance—one stranded, with rigging rent or fallen, the other moving prosperously with full sails on its course—symbolically repeat this thought.*

228. Frogs clamber about the corpse of the man, lizards about the woman. Indeed, for shells and creeping things this place where strangers lie slain and unburied would have been to the good Palissy a veritable and valued potter's field. But to every one of these cold and scaly creatures a special symbolism was attached by the science—not unwisely dreaming—of Carpaccio's day. They are, each one, painted here to amplify and press home the picture's teaching. These lizards are born of a dead man's flesh, these snakes of his marrow:† and adders, the most venomous, are still only lizards ripened witheringly from loathsome flower into poisonous fruit. The frogs ‡—symbols, Pierius tells us, of imperfection and shamelessness—are in transfigured form those Lycian husbandmen whose foul words mocked Latona, whose feet defiled the wells of water she thirsted for, as the veiled mother painfully journeyed with those two babes on her arm, of whom one should be Queen of Maidenhood, the other, Lord of Light, and Guardian of the Ways of Men.§ This subtle

* "The many fail, the one succeeds."

† "The silver cord" not "loosed" in God's peace, but thus devilishly quickened.

‡ Compare the "unclean spirits come out of the mouth of the dragon," in Revelation.

§ 'Αγυαίς.

association between batrachians and love declining to sense lay very deep in the Italian mind. In 'Ariadne Florentina' there are two engravings from Botticelli of Venus, as a star floating through heaven and as foam-born rising from the sea. Both pictures are most subtly beautiful, yet in the former the lizard likeness shows itself distinctly in the face, and a lizard's tail appears in manifest form as pendulous crest of the chariot, while in the latter not only contours of profile and back,* but the selected attitude of the goddess, bent and half emergent, with hand resting not over firmly upon the level shore, irresistibly recall a frog.

229. In the foreground, between St. George and the Dragon, a spotted lizard labors at the task set Sisyphus in hell for ever. Sisyphus, the cold-hearted and shifty son of Æolus,† stained in life by nameless lust, received his mocking doom of toil, partly for his treachery—winning this only in the end,—partly because he opposed the divine conception of the Æacid race; but above all, as penalty for the attempt to elude the fate of death "that is appointed alike for all," by refusal for his own body of that "sowing in corruption," against which a deeper furrow is prepared by the last of husbandmen with whose labor each of us has on earth to do. Then, finding that Carpaccio has had in his mind one scene of Tartarus, we may believe the corpse in the background, torn by carrion-birds, to be not merely a meaningless incident of horror, but a reminiscence of enduring punishment avenging upon Tityus‡ the insulted purity of Artemis.§

230. The coiled adder is the familiar symbol of eternity, here meant either to seal for the defeated their fate as final, or to hint, with something of Turner's sadness, that this is a

* Compare the account of the Frog's hump, 'Ariadne Florentina,' § 111.

† Compare Pindar's use of *αἰόλος* as a fit adjective for *ψεύδος*, Nem. viii. 43.

‡ "Terræ omniparentis alumnum."

§ Or, as the story is otherwise given, of the mother of Artemis, as in the case of the Lycian peasants above.

battle not gained "once for ever" and "for all," but to be fought anew by every son of man, while, for each, defeat shall be deadly, and victory still most hard, though an armed Angel of the Victory of God be our marshal and leader in the contest. A further comparison with Turner is suggested by the horse's skull between us and Saint George. A similar skeleton is prominent in the corresponding part of the foreground in the "Jason" of the 'Liber Studiorum.' But Jason clammers to victory on foot, allows no charger to bear him in the fight. Turner, more an antique * Hellene than a Christian prophet, had, as all the greatest among the Greeks, neither vision nor hope of any more perfect union between lower and higher nature by which that inferior creation, groaning now with us in pain, should cease to be type of the mortal element, which seems to shame our soul as basing it in clay, and, with that element, become a temple-platform, lifting man's life towards heaven.†

With Turner's adder, too, springing immortal from the Python's wound, we cannot but connect this other adder of Carpaccio's, issuing from the white skull of a great snake. Adders, according to an old fancy, were born from the jaws of their living mother. Supernatural horror attaches to this symbolic one, writhing out from between the teeth of that ophidian death's-head. And the plague, not yet fully come forth, but already about *its* father's business, venomously fastens on a frog, type of the sinner whose degradation is but the beginning of punishment. So soon the worm that dies not is also upon him—in its fang Circean poison to make

* Hamlet, V. ii. 352.

† Pegasus and the immortal horses of Achilles, born like Pegasus by the ocean wells, are always to be recognized as spiritual creatures, not—as St. George's horse here—earthly creatures, though serving and manifesting divine power. Compare too the fate of Argus (Homer, Od., XVII.). In the great Greek philosophies, similarly, we find a realm of formless shadow eternally unconquered by sacred order, offering a contrast to the modern systems which aim at a unity to be reached, if not by reason, at least by what one may not inaccurately call an act of faith.

the victim one with his plague, as in that terrible circle those, afflicted, whom "vita bestial piacque e non humana."

231. Two spiral shells * lie on the sand, in shape related to each other as frog to lizard, or as Spenser's urchins, spoken of above, to his snails. One is round and short, with smooth viscous-looking lip, turned over, and lying towards the spectator. The other is finer in form, and of a kind noticeable for its rows of delicate spines. But, since the dweller in this one died, the waves of many a long-fallen tide rolling on the shingle have worn it almost smooth, as you may see its fellows to-day by hundreds along Lido shore. Now, such shells were, through heathen ages innumerable and over many lands, holy things, because of their whorls moving from left to right, † in some mysterious sympathy, it seemed, with the sun in his daily course through heaven. Then as the open clam-shell was special symbol of Venus, so these became of the Syrian Venus, Ashtaroth, Ephesian Artemis, queen, not of purity but of abundance, Mylitta ἡ τις ποτ' ἐστίν, the many-named and widely worshiped. ‡ In Syrian figures still existing she bears just such a shell in her hand. Later writers, with whom the source of this symbolism was forgotten, accounted for it, partly by imaginative instinct, partly by fanciful invention concerning the nature and way of life of these creatures. But there is here yet a further reference, since from such shells along the Syrian coast was crushed out, sea-purple and scarlet, the juice of the Tyrian dye. And the power of sensual delight throned in the chief places of each merchant city decked her "stately bed" with coverings whose tincture was the stain of that baptism. § The shells are

* Ovid associates shells with the enemy of Andromeda, but regarding it as a very ancient and fishlike monster, plants them on its back—

"terga cavis super obsita conchis."—*Ov. Met.* IV. 724.

† In India, for the same reason, one of the leading marks of the Buddha's perfection was his hair, thus spiral.

‡ Compare the curious tale about the Echeneis. Pliny, *Hist. Nat.*, IX. 25. "De echeneide ejusque naturâ mirabili."

§ The purple of Lydda was famous. Compare 'Fors Clavigera,' Vol. VI., 1876, p. 110, and 'Deucalion,' § 39.

empty now, devoured—lizards on land or sea-shore, are ever to such “inimicissimum genus”*—or wasted in the deep. For the ripples† that have thrown and left them on the sand are a type of the lusts of men, that leap up from the abyss, surge over the shore of life, and fall in swift ebb, leaving desolation behind.

232. Near the coiled adder is planted a withered human head. The sinews and skin of the neck spread, and clasp the ground—as a zoophyte does its rock—in hideous mimicry of an old tree’s knotted roots. Two feet and legs, torn off by the knee, lean on this head, one against the brow and the other behind. The scalp is bare and withered. These things catch one’s eye on the first glance at the picture, and though so painful, and made thus prominent as giving the key to a large part of its symbolism. Later Platonists—and among them those of the fifteenth century—developed from certain texts in the *Timæus*‡ a doctrine concerning the mystical meaning of hair, which coincides with its significance to the vision of early (pre-Platonic) Greeks. As a tree has its roots in earth, and set thus, must patiently abide, bearing such fruit as the laws of nature may appoint, so man, being of other family—these dreamers belonged to a very “pre-scientific epoch”—has his roots in heaven, and has the power of moving to and fro over the earth for service to the Law of Heaven, and as sign of his free descent. Of these diviner roots the hair is visible type. Plato tells us,§ that of innocent, light-hearted men, “whose thoughts were turned heavenward,” but “who imagined in their simplicity that the clearest demonstration of things above was to be obtained by sight,” the race of birds had being, by change of external shape into due harmony with the soul (“μετερροθυμιζετο”)—such persons growing feathers instead

* Pliny, *Hist. Nat.*, VIII. 39.

† Under the name of *Salacia* and *Venilia*. See St. August, *Civ. Dei*, VII. 22.

‡ Plato, *Tim.*, 75, 76.

§ Plato, *Tim.*, 91, D. E.

of hair.* We have in Dante,† too, an inversion of tree nature parallel to that of the head here. The tree, with roots in air, whose sweet fruit is, in Purgatory, alternately, to gluttonous souls, temptation, and purifying punishment—watered, Landino interprets, by the descending spray of Lethe—signifies that these souls have forgotten the source and limits of earthly pleasure, seeking vainly in it satisfaction for the hungry and immortal spirit. So here, this blackened head of the sensual sinner is rooted to earth, the sign of strength drawn from above is stripped from off it, and beside it on the sand are laid, as in hideous mockery, the feet that might have been beautiful upon the mountains. Think of the woman's body beyond, and then of this head—"instead of a girdle, a rent; and instead of well-set hair, baldness." The worm's brethren, the Dragon's elect, wear such shameful tonsure, unencircled by the symbolic crown; prodigal of life, "risurgeranno," from no quiet grave, but from this haunt of horror, "co crin mozzi"‡—in piteous witness of wealth ruinously cast away. Then compare, in light of the quotation from Plato above, the dragon's thorny plumage; compare, too, the charger's mane and tail, and the rippling glory that crown St. George. It is worth while, too, to have in mind the words of the "black cherub" that had overheard the treacherous counsel of Guido de Montefeltro. From the moment it was uttered, to that of the sinner's death, the evil spirit says, "stato gli sono a crini" §—lord of his fate. Further, in a Venetian series of engravings illustrating Dante (published 1491), the fire-breathings of the Dragon on Cacus' shoulders transform themselves into the Centaur's femininely flowing hair, to signify the inspiration of his forceful fraud.

* The most devoid of wisdom were stretched on earth, becoming footless and creeping things, or sunk as fish in the sea. So, we saw Venus' chosen transmigration was into the form of an eel—other authorities say, of a fish.

† Dante, Purg., XXII., XXIII.

‡ Dante, Inf., VII. 57; Purg., XXII. 46.

§ Dante, Inf., XXVII.

This “power on his head” he has because of such an angel.* When we consider the Princess we shall find this symbolism yet further carried, but just now have to notice how the closely connected franchise of graceful motion, lost to those dishonored ones, is marked by the most carefully-painted bones lying on the left—a thigh-bone dislocated from that of the hip, and then thrust through it. Curiously, too, such dislocation would in life produce a hump, mimicking fairly enough in helpless distortion that one to which the frog’s leaping power is due.†

233. Centrally in the foreground is set the skull, perhaps of an ape, but more probably of an ape-like man, “with forehead villanous low.” This lies so that its eye-socket looks out, as it were, through the empty eyehole of a sheep’s skull beside it. When man’s vision has become ovine merely, it shall at last, even of grass, see only such bitter and dangerous growth as our husbandman must reap with a spear from a dragon’s wing.

234. The remaining minor words of this poem in a forgotten tongue I cannot definitely interpret. The single skull with jaw-bone broken off, lying under the dragon’s belly, falls to be mentioned afterwards. The ghastly heap of them, crowned by a human mummy, withered and brown,‡ beside the coil of the dragon’s tail, seem meant merely to add general emphasis to the whole. The mummy (and not this alone in the picture) may be compared with Spenser’s description of the Captain of the Army of Lusts:—

“ His body lean and meagre as a rake,
And skin all withered like a dried rook,
There to as cold and dreary as a snake.

* * * * *

Upon his head he wore a helmet light,
Made of a dead man’s skull, that seemed a ghastly sight.”

235. The row of five palm trees behind the dragon’s head

* Dante, *Inf.*, XXV.

† ‘Ariadne Florentina,’ § 111.

‡ The venom of the stellio, a spotted species of lizard, emblem of shamelessness, was held to cause blackening of the face.

perhaps refers to the kinds of temptation over which Victory must be gained, and may thus be illustrated by the five troops that in Spenser assail the several senses, or beside Chaucer's five fingers of the hand of lust. It may be observed that Pliny speaks of the Essenes—predecessors of the Christian Hermits—who had given up the world and its joys as “gens socia palmarum.” *

236. Behind the dragon, in the far background, is a great city. Its walls and towers are crowded by anxious spectators of the battle. There stands in it, on a lofty pedestal, the equestrian statue of an emperor on horseback, perhaps placed there by Carpaccio for sign of Alexandria, perhaps merely from a Venetian's pride and joy in the great figure of Colleone recently set up in his city. In the background of the opposite (St. George's) side of the picture rises a precipitous hill, crowned by a church. The cliffs are waveworn, an arm of the sea passing between them and the city.

237. Of these hieroglyphics, only the figure of the princess now remains for our reading. The expression on her face, ineffable by descriptive words, † is translated into more tangible symbols by the gesture of her hands and arms. These repeat, with added grace and infinitely deepened meaning, the movement of maidens who encourage Theseus or Cadmus in their battle with monsters on many a Greek vase. They have been clasped in agony and prayer, but are now parting—still just a little doubtfully—into a gesture of joyous gratitude to this captain of the army of salvation and to the captain's Captain. Raphael ‡ has painted her running from the scene of battle. Even with Tintoret § she turns away for

* Pliny, *Hist. Nat.*, V. 17.

† Suppose Caliban had conquered Prospero, and fettered him in a fig-tree or elsewhere; that Miranda, after watching the struggle from the cave, had seen him coming triumphantly to seize her; and that the first appearance of Ferdinand is, just at that moment, to her rescue. If we conceive how she would have looked then, it may give some parallel to the expression on the princess's face in this picture, but without a certain light of patient devotion here well marked.

‡ Louvre.

§ National Gallery.

flight; and if her hands are raised to heaven, and her knees fall to the earth, it is more that she stumbles in a woman's weakness, than that she abides in faith or sweet self-surrender. Tintoret sees the scene as in the first place a matter of fact, and paints accordingly, following his judgment of girl nature.* Carpaccio sees it as above all things a matter of faith, and paints mythically for our teaching. Indeed, doing this, he repeats the old legend with more literal accuracy. The princess was offered as a sacrifice for her people. If not willing, she was at least submissive; not for herself did she dream of flight. No chains in the rock were required for the Christian Andromeda.

238. "And the king said, . . . 'Daughter, I would you had died long ago rather than that I should lose you thus.' And she fell at his feet, asking of him a father's blessing. And when he had blessed her once and again, with tears she went her way to the shore. Now St. George chanced to pass by that place, and he saw her, and asked why she wept. But she answered, 'Good youth, mount quickly and flee away, that you die not here shamefully with me.' Then St. George said, 'Fear not, maiden, but tell me what it is you wait for here, and all the people stand far off beholding.' And she said, 'I see, good youth, how great of heart you are: but why do you wish to die with me?' And St. George answered, 'Maiden, do not fear: I go not hence till you tell me why you weep.' And when she had told him all, he answered, 'Maiden, have no fear, for in the name of Christ will I save you.' And she said, 'Good soldier,—lest you perish with me! For that I perish alone is enough, and you could not save me; you would perish with me.' Now while she spoke the dragon raised his head from the waters. And the maiden cried out, all trembling, 'Flee, good my lord, flee away

* And perhaps from a certain ascetic feeling, a sense growing with the growing license of Venice, that the soul must rather escape from this monster by flight than hope to see it subdued and made serviceable (vide § 219).

swiftly.' " * But our "very loyal chevalier of the faith" saw cause to disobey the lady.

239. Yet Carpaccio means to do much more than just repeat this story. His princess, (it is impossible, without undue dividing of its substance, to put into logical words the truth here "embodied in a tale,")—but this princess represents the soul of man. And therefore she wears a coronet of seven gems, for the seven virtues; and of these, the mid-most that crowns her forehead is shaped into the figure of a cross, signifying faith, the saving virtue.† We shall see that in the picture of Gethsemane also, Carpaccio makes the representative of faith central. Without faith, men indeed may shun the deepest abyss, yet cannot attain the glory of heavenly hope and love. Dante saw how such men—even the best—may not know the joy that is perfect. Moving in the divided splendor merely of under earth, on sward whose "fresh verdure," eternally changeless, expects neither in patient waiting nor in sacred hope the early and the latter rain, ‡ "Sembianza avevan nè trista nè lieta."

This maiden, then, is an incarnation of spiritual life, mystically crowned with all the virtues. But their diviner meaning is yet unrevealed, and following the one legible command, she goes down to such a death for her people, vainly. Only by help of the hero who slays monstrous births of nature, to sow and tend in its organic growth the wholesome plant of civil life, may she enter into that liberty with which Christ makes His people free.

* *Legenda Aurea.*

† St. Thomas Aquinas, putting logically the apostle's "substance of things hoped for," defines faith as "a habit of mind by which eternal life is begun in us" (*Summa II. III. IV. 1.*)

‡ Epistle of James, v., Dante selects (and Carpaccio follows him) as heavenly judge of a right hope that apostle who reminds his reader how man's life is even as a vapor that appeareth for a little time and then vanisheth away. For the connection—geologically historic—of grass and showers with true human life, compare Genesis ii. 5—8, where the right translation is, "and no plant of the field was yet in the earth, and no herb yet sprung up or grown," etc.

240. The coronet of the princess is clasped about a close red cap which hides her hair. Its tresses are not yet cast loose, inasmuch as, till the dragon be subdued, heavenly life is not secure for the soul, nor its marriage with the great Bridegroom complete. In corners even of Western Europe, to this day, a maiden's hair is jealously covered till her wedding. Compare now this head with that of St. George. Carpaccio, painting a divine service of mute prayer and acted prophecy, has followed St. Paul's law concerning vestments. But we shall see how, when prayer is answered and prophecy fulfilled, the long hair—"a glory to her," and given by Nature for a veil—is sufficient covering upon the maiden's head, bent in a more mystic rite.

241. From the cap hangs a long scarf-like veil. It is twisted once about the princess's left arm, and then floats in the air. The effect of this veil strikes one on the first glance at the picture. It gives force to the impression of natural fear, yet strangely, in light fold, adds a secret sense of security, as though the gauze were some sacred ægis. And such indeed it is, nor seen first by Carpaccio, though probably his intuitive invention here. There is a Greek vase-picture* of Cadmus attacking a dragon, Ares-begotten, that guarded the sacred spring of the warrior-god. That fight was thus for the same holy element whose symbolic sprinkling is the end of this one here. A maiden anxiously watches the event; her gesture resembles the princess's; her arm is similarly shielded by a fold of her mantle. But we have a parallel at once more familiar and more instructively perfect than this. Cadmus had a daughter, to whom was given power upon the sea, because in utmost need she had trusted herself to the mercy of its billows. Lady of its foam, in hours when "the blackening wave is edged with white," she is a holier and more helpful Aphrodite,—a "water-sprite" whose voice foretells that not "wreck" but salvation "is nigh." In the last and most terrible crisis of that long battle with the Power of Ocean, who denied him a return to his Fatherland,

* Inghirami gives this (No. 239).

Ulysses would have perished in the waters without the veil of Leucothea wrapped about his breast as divine life-buoy. And that veil, the "immortal" *κρήδεμνον*,* was just such a scarf attached to the head-dress as this one of the princess's here.† Curiously, too, we shall see that Leucothea (at first called Ino), of Thebes' and Cadmus' line, daughter of Harmonia, is closely connected with certain sources of the story of St. George.‡ But we have first to consider the dragon's service.

* In pursuance of the same symbolism, Troy walls were once literally called "salvation," this word, with, for certain historical reasons, the added epithet of "holy," being applied to them. With the *κρήδεμνα*, Penelope shielded her "tender" cheeks in presence of the suitors.

† Vide Nitsch ad Od., V. 346.

‡ λέγνντι δ' ἐν καὶ θαλάσσοι

. . . βίοτον ἄφθιτον

'Ἴνοι τετάχθαι τὸν ὄλον ἀμφὶ χρόνον.

(Pind. Ol., II. 51.)

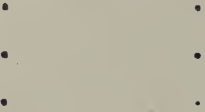
242. The Editor had hope of publishing this book a full year ago. He now in all humility, yet not in uncertainty, can sum the causes of its delay, both with respect to his friend and to himself, in the words of St. Paul,

καὶ ἐνέχοφεν ἡμᾶς ὁ Σατανᾶς.

BRANTWOOD,

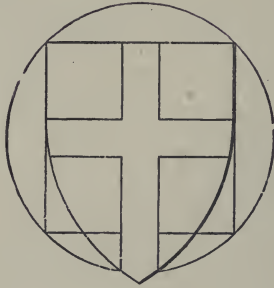
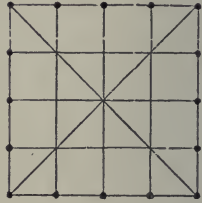
6th March, 1879.

B. ————— C



A.

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THE TWO SHIELDS.

THE LAWS OF FÉSOLE.

A FAMILIAR TREATISE

ON THE ELEMENTARY PRINCIPLES AND PRACTICE

OF

DRAWING AND PAINTING.

AS DETERMINED BY THE TUSCAN MASTERS.

ARRANGED FOR THE USE OF SCHOOLS.

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PREFACE.

THE publication of this book has been delayed by what seemed to me vexatious accident, or (on my own part) unaccountable slowness in work: but the delay thus enforced has enabled me to bring the whole into a form which I do not think there will be any reason afterwards to modify in any important particular, containing a system of instruction in art generally applicable in the education of gentlemen; and securely elementary in that of professional artists. It has been made as simple as I can in expression, and is specially addressed, in the main teaching of it, to young people, (extending the range of that term to include students in our universities;) and it will be so addressed to them, that if they have not the advantage of being near a master, they may teach themselves, by careful reading, what is essential to their progress. But I have added always to such initial principles, those which it is desirable to state for the guidance of advanced scholars, or the explanation of the practice of exemplary masters.

The exercises given in this book, when their series is completed, will form a code of practice which may advisably be rendered imperative on the youth of both sexes who show disposition for drawing. In general, youths and girls who do not wish to draw should not be compelled to draw; but when natural disposition exists, strong enough to render wholesome discipline endurable with patience, every well-trained youth and girl ought to be taught the elements of drawing, as of music, early, and accurately.

To teach them inaccurately is indeed, strictly speaking, not to teach them at all; or worse than that, to prevent the possibility of their ever being taught. The ordinary methods

of water-color sketching, chalk drawing, and the like, now so widely taught by second-rate masters, simply prevent the pupil from ever understanding the qualities of great art, through the whole of his after-life.

It will be found also that the system of practice here proposed differs in many points, and in some is directly adverse, to that which has been for some years instituted in our public schools of art. It might be supposed that this contrariety was capricious or presumptuous, unless I gave my reasons for it, by specifying the errors of the existing popular system.

The first error in that system is the forbidding accuracy of measurement, and enforcing the practice of guessing at the size of objects. Now it is indeed often well to outline at first by the eye, and afterwards to correct the drawing by measurement; but under the present method, the student finishes his inaccurate drawing to the end, and his mind is thus, during the whole progress of his work, accustomed to falseness in every contour. Such a practice is not to be characterized as merely harmful,—it is ruinous. No student who has sustained the injury of being thus accustomed to false contours, can ever recover precision of sight. Nor is this all: he cannot so much as attain to the first conditions of art-judgment. For a fine work of art differs from a vulgar one by subtleties of line which the most perfect measurement is not, alone, delicate enough to detect; but to which precision of attempted measurement directs the attention; while the security of boundaries, within which maximum error *must* be restrained, enables the hand gradually to approach the perfectness which instruments cannot. Gradually, the mind then becomes conscious of the beauty which, even after this honest effort, remains inimitable; and the faculty of discrimination increases alike through failure and success. But when the true contours are voluntarily and habitually departed from, the essential qualities of every beautiful form are necessarily lost, and the student remains forever unaware of their existence.

The second error in the existing system is the enforcement of the execution of finished drawings in light and shade, before the student has acquired delicacy of sight enough to observe their gradations. It requires the most careful and patient teaching to develop this faculty; and it can only be developed at all by *rapid* and *various* practice from natural objects, during which the attention of the student must be directed only to the facts of the shadows themselves, and not at all arrested on methods of producing them. He may even be allowed to produce them as he likes, or as he can; the thing required of him being only that the shade be of the right darkness, of the right shape, and in the right relation to other shades round it; and not at all that it shall be prettily cross-hatched, or deceptively transparent. But at present, the only virtues required in shadow are that it shall be pretty in texture and picturesquely effective; and it is not thought of the smallest consequence that it should be in the right place, or of the right depth. And the consequence is that the student remains, when he becomes a painter, a mere manufacturer of conventional shadows of agreeable texture, and to the end of his life incapable of perceiving the conditions of the simplest natural passage of chiaroscuro.

The third error in the existing code, and, in ultimately destructive power, the worst, is the construction of entirely symmetrical or balanced forms for exercises in ornamental design; whereas every beautiful form in this world, is varied in the minutiae of the balanced sides. Place the most beautiful of human forms in exact symmetry of position, and curl the hair into equal curls on both sides, and it will become ridiculous, or monstrous. Nor can any law of beauty be nobly observed without occasional willfulness of violation.

The moral effect of these monstrous conditions of ornament on the mind of the modern designer is very singular. I have found, in past experience in the Working Men's College, and recently at Oxford, that the English student must at present of necessity be inclined to one of two opposite errors, equally fatal. Either he will draw things mechanically and

symmetrically altogether, and represent the two sides of a leaf, or of a plant, as if he had cut them in one profile out of a doubled piece of paper; or he will dash and scramble for effect, without obedience to law of any kind: and I find the greatest difficulty, on the one hand, in making ornamental draughtsmen draw a leaf of any shape which it could possibly have lived in; and, on the other, in making landscape draughtsmen draw a leaf of any shape at all. So that the process by which great work is achieved, and by which only it can be achieved, is in both directions antagonistic to the present English mind. Real artists are absolutely submissive to law, and absolutely at ease in fancy; while we are at once willful and dull; resolved to have our own way, but when we have got it, we cannot walk two yards without holding by a railing.

The tap-root of all this mischief is in the endeavor to produce some ability in the student to make money by designing for manufacture. No student who makes this his primary object will ever be able to design at all: and the very words 'School of Design' involve the profoundest of Art fallacies. Drawing may be taught by tutors: but Design only by Heaven; and to every scholar who thinks to sell his inspiration, Heaven refuses its help.

To what kind of scholar, and on what conditions, that help has been given hitherto, and may yet be hoped for, is written with unevadible clearness in the history of the Arts of the Past. And this book is called 'The Laws of Fésole' because the entire system of possible Christian Art is founded on the principles established by Giotto in Florence, he receiving them from the Attic Greeks through Cimabue, the last of their disciples, and ingrafting them on the existing art of the Etruscans, the race from which both his master and he were descended.

In the center of Florence, the last great work of native Etruscan architecture, her Baptistery, and the most perfect work of Christian architecture, her Campanile, stand within a hundred paces of each other: and from the foot of that

Campanile, the last conditions of design which preceded the close of Christian art are seen in the dome of Brunelleschi. Under the term 'laws of Fésolé,' therefore, may be most strictly and accurately arranged every principle of art, practiced at its purest source, from the twelfth to the fifteenth century inclusive. And the purpose of this book is to teach our English students of art the elements of these Christian laws, as distinguished from the Infidel laws of the spuriously classic school, under which, of late, our students have been exclusively trained.

Nevertheless, in this book the art of Giotto and Angelico is not taught because it is Christian, but because it is absolutely true and good: neither is the Infidel art of Palladio and Giulio Romano forbidden because it is Pagan; but because it is false and bad; and has entirely destroyed not only our English schools of art, but all others in which it has ever been taught, or trusted in.

Whereas the methods of draughtsmanship established by the Florentines, in true fulfillment of Etruscan and Greek tradition, are insuperable in execution, and eternal in principle; and all that I shall have occasion here to add to them will be only such methods of their application to landscape as were not needed in the day of their first invention; and such explanation of their elementary practice as, in old time, was given orally by the master.

It will not be possible to give a sufficient number of examples for advanced students (or on the scale necessary for some purposes) within the compass of this handbook; and I shall publish therefore together with it, as I can prepare them, engravings or lithographs of the examples in my Oxford schools, on folio sheets, sold separately. But this Handbook will contain all that was permanently valuable in my former Elements of Drawing, together with such further guidance as my observance of the result of those lessons has shown me to be necessary. The work will be completed in twelve numbers, each containing at least two engravings, the whole forming, when completed, two volumes

of the ordinary size of my published works; the first, treating mostly of drawing, for beginners; and the second, of color, for advanced pupils. I hope also that I may prevail on the author of the excellent little treatise on Mathematical Instruments (Weale's Rudimentary Series, No. 82), to publish a lesson-book with about one-fourth of the contents of that formidably comprehensive volume, and in larger print, for the use of students of art; omitting therefrom the descriptions of instruments useful only to engineers, and without forty-eight pages of advertisements at the end of it. Which, if I succeed in persuading him to do, I shall be able to make permanent reference to his pages for elementary lessons on construction.

Many other things I meant to say, and advise, in this Preface; but find that were I to fulfill such intentions, my Preface would become a separate book, and had better therefore end itself forthwith, only desiring the reader to observe, in sum, that the degree of success, and of pleasure, which he will finally achieve, in these or any other art-exercises on a sound foundation, will virtually depend on the degree in which he desires to understand the merit of others, and to make his own talents permanently useful. The folly of most amateur work is chiefly in its selfishness, and self-contemplation; it is far better not to be able to draw at all, than to waste life in the admiration of one's own littlenesses;—or, worse, to withdraw, by merely amusing dexterities, the attention of other persons from noble art. It is impossible that the performance of an amateur can ever be otherwise than feeble in itself; and the virtue of it consists only in having enabled the student, by the effect of its production, to form true principles of judgment, and direct his limited powers to useful purposes.

BRANTWOOD, *31st July, 1877.*

THE LAWS OF FÉSOLE.

CHAPTER I.

ALL GREAT ART IS PRAISE.

1. THE art of man is the expression of his rational and disciplined delight in the forms and laws of the creation of which he forms a part.

2. In all first definitions of very great things, there must be some obscurity and want of strictness; the attempt to make them too strict will only end in wider obscurity. We may indeed express to our friend the rational and disciplined pleasure we have in a landscape, yet not be artists: but it is true, nevertheless, that all art is the skillful expression of such pleasure; not always, it may be, in a thing seen, but only in a law felt; yet still, examined accurately, always in the Creation, of which the creature forms a part; and not in itself merely. Thus a lamb at play, rejoicing in its own life only, is not an artist;—but the lamb's shepherd, carving the piece of timber which he lays for his door-lintel into beads, is expressing, however unconsciously, his pleasure in the laws of time, measure, and order, by which the earth moves, and the sun abides in heaven.

3. So far as reason governs, or discipline restrains, the art even of animals, it becomes human, in those virtues; but never, I believe, perfectly human, because it never, so far as I have seen, expresses even an unconscious delight in divine laws. A nightingale's song is indeed exquisitely divided; but only, it seems to me, as the ripples of a stream,

by a law of which the waters and the bird are alike unconscious. The bird is conscious indeed of joy and love, which the waters are not;—but, (thanks be to God,) joy and love are not Arts; nor are they limited to Humanity. But the love-song becomes Art, when, by reason and discipline, the singer has become conscious of the ravishment in its divisions to the lute.

4. Farther to complete the range of our definition, it is to be remembered that we express our delight in a beautiful or lovely thing no less by lament for its loss, than gladness in its presence, much art is therefore tragic or pensive; but all true art is praise.*

5. There is no exception to this great law, for even caricature is only artistic in conception of the beauty of which it exaggerates the absence. Caricature by persons who cannot conceive beauty, is monstrous in proportion to that dullness; and, even to the best artists, perseverance in the habit of it is fatal.

6. Fix, then, this in your mind as the guiding principle of all right practical labor, and source of all healthful life energy,—that your art is to be the praise of something that you love. It may be only the praise of a shell or a stone; it may be the praise of a hero; it may be the praise of God:—your rank as a living creature is determined by the height and breadth of your love; but, be you small or great, what healthy art is possible to you must be the expression of your

* As soon as the artist forgets his function of praise in that of imitation, his art is lost. His business is to give, by any means, however imperfect, the idea of a beautiful thing; not, by any means, however perfect, the realization of an ugly one. In the early and vigorous days of Art, she endeavored to praise the saints, though she made but awkward figures of them. Gradually becoming able to represent the human body with accuracy, she pleased herself greatly at first in this new power, and for about a century decorated all her buildings with human bodies in different positions. But there was nothing to be praised in persons who had no other virtue than that of possessing bodies, and no other means of expression than unexpected manners of crossing their legs. Surprises of this nature necessarily have their limits, and the Arts founded on Anatomy expired when the changes of posture were exhausted.

true delight in a real thing, better than the art. You may think, perhaps, that a bird's nest by William Hunt is better than a real bird's nest. We indeed pay a large sum for the one, and scarcely care to look for, or save, the other. But it would be better for us that all the pictures in the world perished, than that the birds should cease to build nests.

And it is precisely in its expression of this inferiority, that the drawing itself becomes valuable. It is because a photograph cannot condemn itself, that it is worthless. The glory of a great picture is in its shame; and the charm of it, in speaking the pleasure of a great heart, that there is something better than picture. Also it speaks with the voices of many: the efforts of thousands dead, and their passions, are in the pictures of their children to-day. Not with the skill of an hour, nor of a life, nor of a century, but with the help of numberless souls, a beautiful thing must be done. And the obedience, and the understanding, and the pure natural passion, and the perseverance, *in secula seculorum*, as they must be given to produce a picture, so they must be recognized, that we may perceive one.

7. This is the main lesson I have been teaching, so far as I have been able, through my whole life,—Only that picture is noble, which is painted in love of the reality. It is a law which embraces the highest scope of Art; it is one also which guides in security the first steps of it. If you desire to draw, that you may represent something that you care for, you will advance swiftly and safely. If you desire to draw, that you may make a beautiful drawing, you will never make one.

8. And this simplicity of purpose is farther useful in closing all discussions of the respective grace or admirableness of method. The best painting is that which most completely represents what it undertakes to represent, as the best language is that which most clearly says what it undertakes to say.

9. Given the materials, the limits of time, and the conditions of place, there is only one proper method of painting.*

* In sculpture, the materials are necessarily so varied, and the circum-

And since, if painting is to be entirely good, the materials of it must be the best possible, and the conditions of time and place entirely favorable, there is only one manner of entirely good painting. The so-called 'styles' of artists are either adaptations to imperfections of material, or indications of imperfection in their own power, or the knowledge of their day. The great painters are like each other in their strength, and diverse only in weakness.

10. The last aphorism is true even with respect to the dispositions which induce the preference of particular characters in the subject. Perfect art perceives and reflects the whole of nature: imperfect art is fastidious, and impertinently prefers and rejects. The foible of Correggio is grace, and of Mantegna, precision: Veronese is narrow in his gayety, Tintoret in his gloom, and Turner in his light.

11. But, if we *know* our weakness, it becomes our strength; and the joy of every painter, by which he is made narrow, is also the gift by which he is made delightful, so long as he is modest in the thought of his distinction from others, and no less severe in the indulgence, than careful in the cultivation, of his proper instincts. Recognizing his place, as but one quaintly-veined pebble in the various pavement,—one richly-fused fragment, in the vitrail of life,—he will find, in his distinctness, his glory and his use; but destroys himself in demanding that all men should stand within his compass, or see through his color.

12. The differences in style instinctively caused by personal character are however of little practical moment, compared to those which are rationally adopted, in adaptation to circumstance.

Of these variously conventional and inferior modes of work, we will examine such as deserve note in their proper place. But we must begin by learning the manner of work

stances of place so complex, that it would seem like an affected stretching of principle to say there is only one proper method of sculpture: yet this is also true, and any handling of marble differing from that of Greek workmen is inferior by such difference.

which, from the elements of it to the end, is completely right, and common to all the masters of consummate schools. In whom these two great conditions of excellence are always discernible,—that they conceive more beautiful things than they can paint, and desire only to be praised in so far as they can represent these, for subjects of higher praising.

CHAPTER II.

THE THREE DIVISIONS OF THE ART OF PAINTING.

1. IN order to produce a completely representative picture of any object on a flat surface, we must outline it, color it, and shade it. Accordingly, in order to become a complete artist, you must learn these three following modes of skill completely. First, how to outline spaces with accurate and delicate lines. Secondly, how to fill the outlined spaces with accurate, and delicately laid, color. Thirdly, how to gradate the colored spaces, so as to express, accurately and delicately, relations of light and shade.

2. By the word 'accurate' in these sentences, I mean nearly the same thing as if I had written 'true;' but yet I mean a little more than verbal truth: for, in many cases, it is possible to give the strictest truth in words without any painful care; but it is not possible to be true in lines, without constant care, or '*accuracy.*' We may say, for instance, without laborious attention, that the tower of Garisenda is a hundred and sixty feet high, and leans nine feet out of the perpendicular. But we could not draw the line representing this relation of nine feet horizontal to a hundred and sixty vertical, without extreme care.

In other cases, even by the strictest attention, it is not possible to give complete or strict truth in words. We could not, by any number of words, describe the color of a ribbon so as to enable a mercer to match it without seeing it. But an 'accurate' colorist can convey the required intelligence at once, with a tint on paper. Neither would it be possible, in language, to explain the difference in gradations of shade which the eye perceives between a beautifully rounded and

dimpled chin, and a more or less determinedly angular one. But on the artist's 'accuracy' in distinguishing and representing their relative depths, not in one feature only, but in the harmony of all, depend his powers of expressing the charm of beauty, or the force of character; and his means of enabling us to know Joan of Arc from Fair Rosamond.

3. Of these three tasks, outline, color, and shade, outline, in perfection, is the most difficult; but students must begin with that task, and are masters when they can see to the end of it, though they never reach it.

To color is easy if you can see color; and impossible if you cannot.*

4. To shade is very difficult; and the perfections of light and shadow have been rendered by few masters; but in the degree sufficient for good work, it is within the reach of every student of fair capacity who takes pains.

5. The order in which students usually learn these three processes of art is in the inverse ratio of their difficulty. They begin with outline, proceed to shade, and conclude in color. While, naturally, any clever house decorator can color, and any patient Academy pupil shade; but Raphael at his full strength is plagued with his outline, and tries half a dozen backwards and forwards before he pricks his chosen one down.†

6. Nevertheless, both the other exercises should be practiced with this of outline, from the beginning. We *must* outline the space which is to be filled with color, or explained by shade; but we cannot handle the brush too soon, nor too long continue the exercises of lead ‡ point. Every system is imperfect which pays more than a balanced and equitable attention to any one of the three skills, for all are necessary

* A great many people do not know green from red; and such kind of persons are apt to feel it their duty to write scientific treatises on color, edifying to the art-world.

† Beautiful and true shade can be produced by a machine fitted to the surface, but no machine can outline.

‡ See explanation of term, p. 19.

in equal perfection to the completeness of power. There will indeed be found great differences between the faculties of different pupils to express themselves by one or other of these methods; and the natural disposition to give character by delineation, charm by color, or force by shade, may be discreetly encouraged by the master, after moderate skill has been attained in the collateral exercises. But the first condition of steady progress for every pupil,—no matter what their gifts, or genius,—is that they should be taught to draw a calm and true outline, entirely decisive, and admitting no error avoidable by patience and attention.

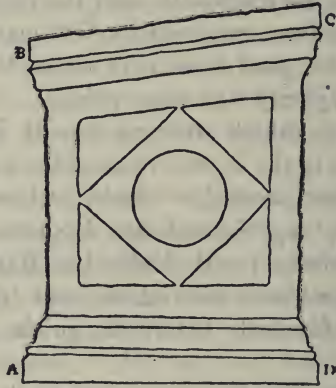


Fig. 1.

7. We will begin therefore with the simplest conceivable practice of this skill, taking for subject the two elementary forms which the shepherd of Fésole gives us, (Fig. 1,) supporting the desk of the master of Geometry.

You will find the original bas-relief represented very sufficiently in the nineteenth of the series of photographs from the Tower of Giotto, and may thus for yourself ascertain the accuracy of this outline, which otherwise you might suppose careless, in that the suggested square is not a true one, having two acute and two obtuse angles; nor is it set upright, but

with the angle on your right hand higher than the opposite one, so as partly to comply with the slope of the desk. But this is one of the first signs that the sculpture is by a master's hand. And the first thing a modern restorer would do, would be to "correct the mistake," and give you, instead, the, to him, more satisfactory arrangement. (Fig. 2.)

8. We must not, however, permit ourselves, in the beginning of days, to draw inaccurate squares; such liberty is only the final reward of obedience, and the generous breaking of law, only to be allowed to the loyal.

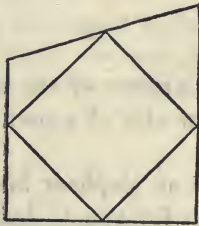


Fig. 2.

Take your compasses, therefore, and your ruler, and smooth paper over which your pen will glide unchecked. And take above all things store of patience; and then,—but for what is to be done then, the directions had best be reserved to a fresh chapter, which, as it will begin a group of exercises of which you will not at once perceive the intention, had better, I think, be preceded by this following series of general aphorisms, which I wrote for a young Italian painter, as containing what was likely to be most useful to him in briefest form; and which for the same reason I here give, before entering on specific practice.

APHORISMS.

I.

The greatest art represents everything with absolute sincerity, as far as it is able. But it chooses the best things to represent, and it places them in the best order in which they can be seen. You can only judge of what is *best*, in process of time, by the bettering of your own character. What is *true*, you can learn now, if you will.

II.

Make your studies always of the real size of things. A man is to be drawn the size of a man; and a cherry the size of a cherry.

‘But I cannot draw an elephant his real size’?

There is no occasion for you to draw an elephant.

‘But nobody can draw Mont Blanc his real size’?

No. Therefore nobody can draw Mont Blanc at all; but only a distant view of Mont Blanc. You may also draw a distant view of a man, and of an elephant, if you like; but you must take care that it is seen to be so, and not mistaken for a drawing of a pygmy, or a mouse, near.

‘But there is a great deal of good miniature painting’?

Yes, and a great deal of fine cameo-cutting. But I am going to teach you to be a painter, not a locket-decorator, or medalist.

III.

Direct all your first efforts to acquire the power of drawing an absolutely accurate outline of any object, of its real size, as it appears at a distance of not less than twelve feet from the eye. All greatest art represents objects at not less than this distance; because you cannot see the full stature and action of a man if you go nearer him. The difference between the

appearance of anything—say a bird, fruit, or leaf—at a distance of twelve feet or more, and its appearance looked at closely, is the first difference also between Titian's painting of it, and a Dutchman's.

IV.

Do not think, by learning the nature or structure of a thing, that you can learn to draw it. Anatomy is necessary in the education of surgeons; botany in that of apothecaries; and geology in that of miners. But none of the three will enable you to draw a man, a flower, or a mountain. You can learn to do that only by looking at them; not by cutting them to pieces. And don't think you can paint a peach, because you know there's a stone inside; nor a face, because you know a skull is.

V.

Next to outlining things accurately, of their true form, you must learn to color them delicately, of their true color.

VI.

If you can match a color accurately, and lay it delicately, you are a painter; as, if you can strike a note surely, and deliver it clearly, you are a singer. You may then choose what you will paint, or what you will sing.

VII.

A pea is green, a cherry red, and a blackberry black, all round.

VIII.

Every light is a shade, compared to higher lights, till you come to the sun; and every shade is a light, compared to deeper shades, till you come to the night. When, therefore,

you have outlined any space, you have no reason to ask whether it is in light or shade, but only, of what color it is, and to what depth of that color.

IX.

You will be told that shadow is gray. But Correggio, when he has to shade with one color, takes red chalk.

X.

You will be told that blue is a retiring color, because distant mountains are blue. The sun setting behind them is nevertheless farther off, and you must paint it with red or yellow.

XI.

"Please paint me my white cat," said little Imelda. "Child," answered the Bolognese Professor, "in the grand school, all cats are gray."

XII.

Fine weather is pleasant; but if your picture is beautiful, people will not ask whether the sun is out or in.

XIII.

When you speak to your friend in the street, you take him into the shade. When you wish to think you can speak to him in your picture, do the same.

XIV.

Be economical in everything, but especially in candles. When it is time to light them, go to bed. But the worst waste of them is drawing by them.

XV.

Never, if you can help it, miss seeing the sunset and the dawn. And never, if you can help it, see anything but dreams between them.

XVI.

‘A fine picture, you say?’ “The finest possible; St. Jerome, and his lion, and his arm-chair. St. Jerome was painted by a saint, and the Lion by a hunter, and the chair by an upholsterer.”

My compliments. It must be very fine; but I do not care to see it.

XVII.

‘Three pictures, you say? and by Carpaccio!’ “Yes—St. Jerome, and his lion, and his arm-chair. Which will you see?” ‘What does it matter? The one I can see soonest.’

XVIII.

Great painters defeat Death;—the vile, adorn him, and adore.

XIX.

If the picture is beautiful, copy it as it is; if ugly, let it alone. Only Heaven, and Death, know what it *was*.

XX.

‘The King has presented an Etruscan vase, the most beautiful in the world, to the Museum of Naples. What a pity I cannot draw it!’

In the meantime, the housemaid has broken a kitchen teacup; let me see if you can draw one of the pieces.

XXI.

When you would do your best, stop, the moment you begin to feel difficulty. Your drawing will be the best you can do; but you will not be able to do another so good to-morrow.

XXII.

When you would do *better* than your best, put your full strength out, the moment you feel a difficulty. You will spoil your drawing to-day; but you will do better than your to-day's best, to-morrow.

XXIII.

"The enemy is too strong for me to-day," said the wise young general. "I won't fight him; but I won't lose sight of him."

XXIV.

"I can do what I like with my colors, now," said the proud young scholar. "So could I, at your age," answered the master; "but now, I can only do what other people like."

CHAPTER III.

FIRST EXERCISE IN RIGHT LINES: THE QUARTERING OF ST. GEORGE'S SHIELD.

1. TAKE your compasses,* and measuring an inch on your ivory rule, mark that dimension by the two dots at B and C, (see the uppermost figure on the left in Plate 1,) and with your black ruler draw a straight line between them, with a fine steel pen and common ink.† Then measure the same length, of an inch, down from B, as nearly perpendicular as you can, and mark the point A; and divide the height A B into four equal parts with the compasses, and mark them with dots, drawing every dot as a neatly circular point, clearly visible. This last finesse will be an essential part of your drawing practice; it is very irksome to draw such dots patiently, and very difficult to draw them well.

Then mark, not now by measure, but by eye, the remaining corner of the square, D, and divide the opposite side C D, by dots, opposite the others as nearly as you can guess. Then draw four level lines without a ruler, and without raising your pen, or stopping, slowly, from dot to dot, across the square. The four lines altogether should not take less,—but not much more,—than a quarter of a minute in the drawing, or about four seconds each. Repeat this practice now and then, at leisure minutes, until you have got an approxi-

* I have not been able yet to devise a quite simple and sufficient case of drawing instruments for my schools. But, at all events, the complete instrument-case must include the ivory scale, the black parallel rule, a divided quadrant (which I will give a drawing of when it is wanted), one pair of simple compasses, and one fitted with pen and pencil.

† Any dark color that will wash off their fingers may be prepared for children.

mately well-drawn group of five lines; the point D being successfully put in accurate corner of the square. Then similarly divide the lines A D and B C, by the eye, into four parts, and complete the figure as on the right hand at the top of Plate 1, and test it by drawing diagonals across it through the corners of the squares, till you can draw it true.

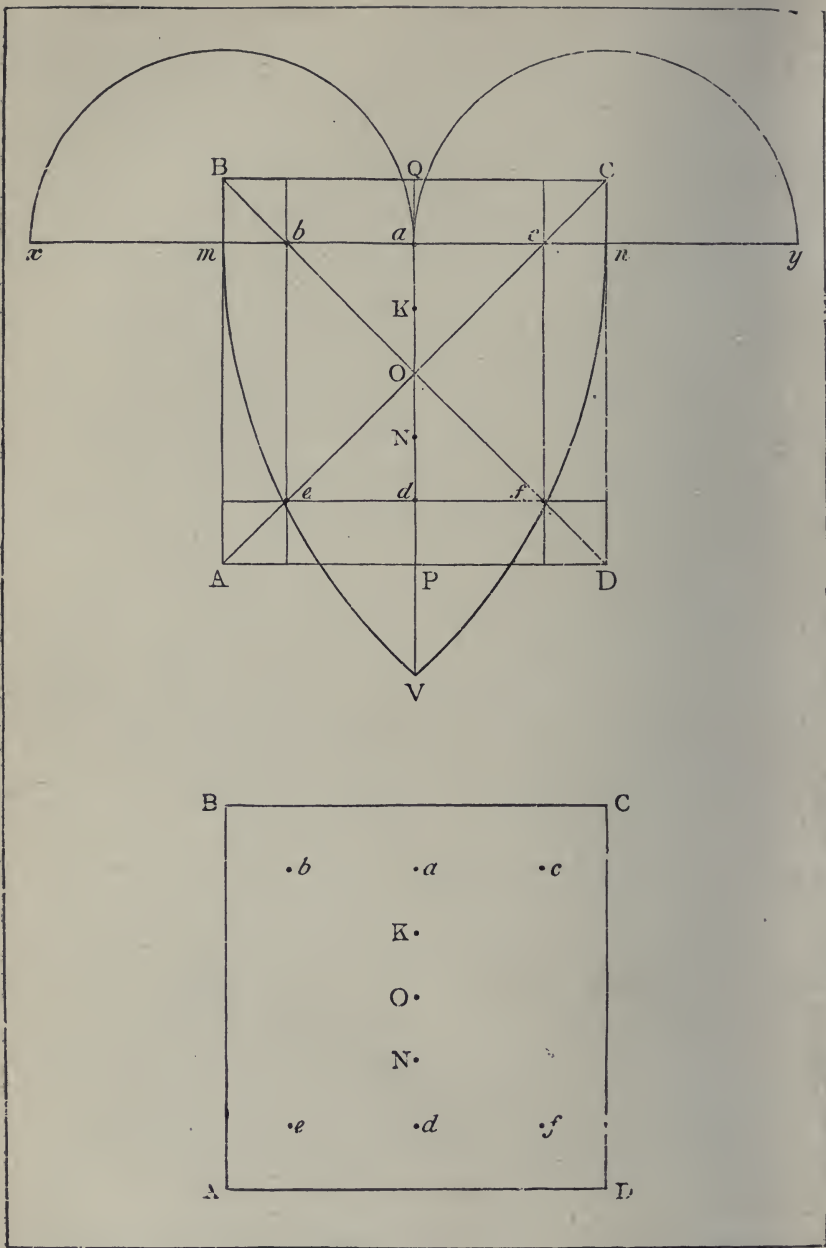
2. Contenting yourself for some time with this square of sixteen quarters for *hand* practice, draw also, with extremest accuracy of measurement possible to you, and finely ruled lines such as those in the plate, the inch square, with its side sometimes divided into three parts, sometimes into five, and sometimes into six, completing the interior nine, twenty-five, and thirty-six squares with utmost precision; and do not be satisfied with these till diagonals afterwards drawn, as in the figure, pass precisely through the angles of the square.

Then, as soon as you can attain moderate precision in instrumental drawing, construct the central figure in the plate, drawing, first the square; then, the lines of the horizontal bar, from the midmost division of the side divided into five. Then draw the curves of the shield, from the uppermost corners of the cross-bar, for centers; then the vertical bar, also one-fifth of the square in breadth; lastly, find the center of the square, and draw the inclosing circle, to test the precision of all. More advanced pupils may draw the inner line to mark thickness of shield; and lightly tint the cross with rose-color.

In the lower part of the plate is a first study of a feather, for exercise later on; it is to be copied with a fine steel pen and common ink, having been so drawn with decisive and visible lines, to form steadiness of hand.*

3. The feather is one of the smallest from the upper edge

* The original drawings for all these plates will be put in the Sheffield Museum; but if health remains to me, I will prepare others of the same kind, only of different subjects, for the other schools of St. George. The engravings, by Mr. Allen's good skill, will, I doubt not, be better than the originals for all practical purposes; especially as my hand now shakes more than his, in small work.



CONSTRUCTION FOR PLACING THE HONOR POINTS.

of a hen's wing; the pattern is obscure, and not so well adapted for practice as others to be given subsequently, but I like best to begin with this, under St. George's shield; and whether you can copy it or not, if you have any natural feeling for beauty of line, you will see, by comparing the two, that the shield form, mechanically constructed, is meager and stiff; and also that it would be totally impossible to draw the curves which terminate the feather below by any mechanical law; much less the various curves of its filaments. Nor can we draw even so simple a form as that of a shield beautifully, by instruments. But we may come nearer, by a more complex construction, to beautiful form; and define at the same time the heraldic limits of the bearings. This finer method is given in Plate 2, on a scale twice as large, the shield being here two inches wide. And it is to be constructed as follows.

4. Draw the square $A B C D$, two inches on the side, with its diagonals $A C$, $B D$, and the vertical $P Q$ through its center O ; and observe that, henceforward, I shall always use the words 'vertical' for 'perpendicular,' and 'level' for 'horizontal,' being shorter, and no less accurate.

Divide $O Q$, $O P$, each into three equal parts by the points, K , a ; N , d .

Through a and d draw the level lines, cutting the diagonals in b , c , e , and f ; and produce $b c$, cutting the sides of the square in m and n , as far towards x and y as you see will be necessary.

With centers m and n , and the equal radii $m a$, $n a$, describe semicircles, cutting $x y$ in x and y . With centers x and y , and the equal radii $x n$, $y m$, describe arcs $m V$, $n V$, cutting each other and the line $Q P$, produced, in V .

The precision of their concurrence will test your accuracy of construction.

5. The form of shield $B C V$, thus obtained, is not a perfect one, because no perfect form (in the artist's sense of the word 'perfectness') can be drawn geometrically; but it approximately represents the central type of English shield.

It is necessary for you at once to learn the names of the nine points thus obtained, called 'honor-points,' by which the arrangement and measures of bearings are determined.

All shields are considered heraldically to be square in the field, so that they can be divided accurately into quarters.

I am not aware of any formerly recognized geometrical method of placing the honor-points in this field:—that which I have here given will be found convenient for strict measurement of the proportions of bearings.

6. Considering the square A B C D as the field, and removing from it the lines of construction, the honor-points are seen in their proper places, in the lower part of the plate.

These are their names,—

<i>a</i>	Middle Chief	} point.
<i>b</i>	Dexter Chief	
<i>c</i>	Sinister Chief	
K	Honor	
O	Fesse	
N	Numbril	
<i>d</i>	Middle Base	
<i>e</i>	Dexter Base	
<i>f</i>	Sinister Base	

I have placed these letters, with some trouble, as I think best for help of your memory.

The *a, b, c; d, e, f,* are, I think, most conveniently placed in upper and under series: I could not, therefore, put *f* for the Fesse point, but the O will remind you of it as the sign for a belt or girdle. Then K will stand for knighthood, or the honor-point, and putting N for the numbril, which is otherwise difficult to remember, we have, reading down, the syllable KON, the Teutonic beginning of KONIG or King, all which may be easily remembered.

And now look at the first plate of the large Oxford series.*

* See notice of this series in Preface.

It is engraved from my free-hand drawing in the Oxford schools; and is to be copied, as that drawing is executed, with pencil and color.

In which sentence I find myself face to face with a difficulty of expression which has long teased me, and which I must now conclusively, with the reader's good help, overcome.

7. In all classical English writing on art, the word 'pencil,'—in all classical French writing, the word 'pinceau,'—and in all classical Italian writing, the word 'pennello,' means the painter's instrument, the brush.*

It is entirely desirable to return, in England, to this classical use with constant accuracy, and resolutely to call the black-lead pencil, the 'lead-crayon;' or, for shortness, simply 'the lead.' In this book I shall generally so call it, saying, for instance, in the case of this diagram, "draw it first with the lead." 'Crayon,' from 'craie,' chalk, I shall use instead of 'chalk;' meaning when I say black crayon, common black chalk; and when I say white crayon, common white chalk; while I shall use indifferently the word 'pencil' for the instrument whether of water-color or oil painting.

8. Construct then the whole of this drawing, Plate 1, Oxford series, first with a light lead line; then take an ordinary † camel's hair pencil, and with free hand follow the lead lines in color. Indian red is the color generally to be

* The Latin 'penicillum' originally meant a 'little tail,' as of the ermine. My friend Mr. Alfred Tylor informs me that Newton was the first to apply the word to light, meaning a pointed group of rays.

† That is to say, not a particularly small one; but let it be of good quality. Under the conditions of overflowing wealth which reward our national manufacturing industry, I find a curious tendency in my pupils to study economy especially in colors and brushes. Every now and then I find a student using a brush which bends up when it touches the paper, and remains in the form of a fish-hook. If I advise purchase of a better, he—or she—says to me, "Can't I do something with this?" "Yes,—something, certainly. Perhaps you may paste with it; but you can't draw. Suppose I was a fencing-master, and you told me you couldn't afford to buy a foil,—would you expect me to teach you to fence with a poker?"

used for practice, being cheap and sufficiently dark, but lake or carmine work more pleasantly for a difficult exercise like this.

9. In laying the color lines, you may go over and over again, to join them and make them even, as often as you like, but must not thicken the thin ones; nor interrupt the thickness of the stronger outline so as to confuse them at all with each other. Giotto, Dürer, or Mantegna, would draw them at once without pause or visible error, as far as the color in the pencil lasted. Only two or three years ago I could nearly have done so myself, but my hand now shakes a little; the drawing in the Oxford schools is however very little retouched over the first line.

10. We will at this point leave our heraldry,* because we cannot better the form of our shield until we can draw lines of more perfect, that is to say, more varied and interesting, curvature, for its sides. And in order to do this we must learn how to construct and draw curves which cannot be drawn with any mathematical instrument, and yet whose course is perfectly determined.

* Under the general influence of Mr. Gradgrind, there has been lately published a book of "Heraldry founded on facts" (The Pursuivant of Arms,—Chatto and Windus), which is worth buying, for two reasons: the first, that its 'facts' are entirely trustworthy and useful; (well illustrated in minor wood-cut also, and, many, very curious and new,)—the second, that the writer's total ignorance of art, and his education among vulgar modernisms, have caused him to give figure-illustrations, wherever he draws either man or beast, as at pages 62 and 106, whose horrible vulgarity will be of good future service as a type to us of the maximum in that particular. But the curves of shields are, throughout, admirably chosen and drawn, to the point mechanically possible.

CHAPTER IV.

FIRST EXERCISE IN CURVES: THE CIRCLE.

1. AMONG the objects familiarly visible to us, and usually regarded with sentiments of admiration, few are more classically representative of Giotto's second figure, inscribed in his square, than that by common consent given by civilized nations to their pieces of money. We may, I hope, under fortunate augury, limit ourselves at first to the outline (as, in music, young students usually begin with the song), of Sixpence.

2. Supposing you fortunate enough to possess the coin, may I ask you to lay it before you on a stiff card. Do you think it looks round? It does not, unless you look exactly down on it. But let us suppose you do so, and have to draw its outline under that simple condition.

Take your pen, and do it then, beside the sixpence.

“You cannot?”

Neither can I. Giotto could, and perhaps after working due time under the laws of Fésolé, you may be able to do it, too, approximately. If I were as young as you, I should at least encourage that hope. In the meantime you must do it ignominiously, with compasses. Take your pen-compasses, and draw with them a circle the size of a sixpence.*

* Not all young students can even manage their compasses; and it is well to get over this difficulty with deliberate and immediate effort. Hold your compasses upright, and lightly, by the joint at the top; fix one point quite firm, and carry the other round it any quantity of times without touching the paper, as if you were spinning a top without quitting hold of it. The fingers have to shift as the compasses revolve; and, when well practiced, should do so without stopping, checking, or accelerating the

3. When it is done, you will not, I hope, be satisfied with it as the outline of a sixpence.* For, in the first place, it might just as well stand for the outline of the moon; and in the second, though it is true, or accurate, in the mere quality of being a circle, either the space inclosed by the inner side of the black line must be smaller, or that inclosed by the outside larger, than the area of a sixpence. So the closer you can screw the compass-point, the better you will be pleased with your line: only it must always happen even with the most delicate line, so long as it has thickness at all, that its inner edge is too small, or its outer too large. It is best, therefore, that the error should be divided between these two excesses, and that the center of the line should coincide with the contour of the object. In advanced practice, however, outline is properly to be defined as the narrowest portion which can be conveniently laid of a dark background round an object which is to be relieved in light, or of a light background round an object to be relieved in shade. The Venetians often leave their first bright outlines gleaming round their dark figures, after the rest of the background has been added.

motion of the point. Practice for five minutes at a time till you get skillful in this action, considering it equally disgraceful that the fixed point of the compasses should slip, or that it should bore a hole in the paper. After you are enough accustomed to the simple mechanism of the revolution, depress the second point, and draw any quantity of circles with it, large and small, till you can draw them throughout, continuously, with perfect ease.

* If any student object to the continued contemplation of so vulgar an object, I must pray him to observe that, vulgar as it may be, the idea of it is contentedly allowed to mingle with our most romantic ideals. I find this entry in my diary for 26th January, 1876:—"To Crystal Palace, through squalor and rags of declining Dulwich: very awful. In palace afterwards, with organ playing above its rows of ghastly cream-colored amphitheater seats, with 'SIXPENCE' in letters as large as the organist, —occupying the full field of sight below him. Of course, the names of Mendelssohn, Orpheus, Apollo, Julien, and other great composers, were painted somewhere in the paneling above. But the real inscription—meant to be practically, and therefore divinely, instructive—was 'SIXPENCE.'

4. The *perfect* virtue of an outline, therefore, is to be absolutely accurate with its inner edge, the outer edge being of no consequence. Thus the figures relieved in light on black Greek vases are first inclosed with a line of thick black paint about the eighth of an inch broad, afterwards melted into the added background.

In dark outline on white ground, however, it is often necessary to draw the extremities of delicate forms with lines which give the limit with their outer instead of their inner edge; else the features would become too large. Beautiful examples of this kind of work are to be seen in face-drawing, especially of children, by Leech, and Du Maurier, in 'Punch.'

Loose lines, doubled or trebled, are sometimes found in work by great, never by the greatest, masters; but these are only tentative; processes of experiment as to the direction in which the real outline is to be finally laid.

5. The fineness of an outline is of course to be estimated in relation to the size of the object it defines. A chalk sketch on a wall may be a very subtle outline of a large picture; though Holbein or Bewick would be able to draw a complete figure within the width of one of its lines. And, for your own practice, the simplest instrument is the best; and the line drawn by any moderately well-cut quill pen, not crow quill, but sacred goose, is the means of all art which you have first to master; and you may be sure that, in the end, your progress in all the highest skill of art will be swift in proportion to the patience with which in the outset you persist in exercises which will finally enable you to draw with ease the outline of any object of a moderate size, (plainly visible, be it understood, and firmly terminated,)* with an unerring and continuous pen line.

6. And observe, once for all, there is never to be any scrawling, blotting, or splashing, in your work, with pen or

* By 'firmly terminated,' I mean having an outline which *can* be drawn, as that of your sixpence, or a book, or a table. You can't outline a bit of cotton wool, or the flame of a candle.

anything else. But especially with the pen, you are to avoid rapid motion, because you will be easily tempted to it. Remember, therefore, that no line is well drawn unless you can stop your hand at any point of it you choose. On the other hand, the motion must be consistent and continuous, otherwise the line will not be even.

7. It is not indeed possible to say with precision how fast the point may move, while yet the eye and fingers retain perfect attention and directing power over it. I have seen a great master's hand flying over the paper as fast as gnats over a pool; and the ink left by the light grazing of it, so pale, that it gathered into shade like gray lead;—and yet the contours, and fine notes of character, seized with the accuracy of Holbein. But gift of this kind is a sign of the rarest artistic faculty and tact: you need not attempt to gain it, for if it is in you, and you work continually, the power will come of itself; and if it is not in you, will never come; nor, even if you could win it, is the attainment wholly desirable. Drawings thus executed are always imperfect, however beautiful: they are out of harmony with the general manner and scheme of serviceable art; and always, so far as I have observed, the sign of some deficiency of earnestness in the worker. Whatever your faculty may be, deliberate exercise will strengthen and confirm the good of it; while, even if your natural gift for drawing be small, such exercise will at least enable you to understand and admire, both in art and nature, much that was before totally profitless or sealed to you.

8. We return, then, to our coin study. Now, if we are ever to draw a sixpence in a real picture, we need not think that it can always be done by looking down at it like a hawk, or a miser, about to pounce. We must be able to draw it lying anywhere, and seen from any distance.

So now raise the card, with the coin on it, slowly to the level of the eye, so as at last to look straight over its surface. As you do so, gradually the circular outline of it becomes compressed; and between the position in which you look

down on it, seeing its outline as a circle, and the position in which you look across it, seeing nothing but its edge, there are thus developed an infinite series of intermediate outlines, which, as they approach the circle, resemble that of an egg, and as they approach the straight line, that of a rolling-pin; but which are all accurately drawn curves, called by mathematicians 'ellipses,' or curves that 'leave out' something; in this first practice you see they leave out some space of the circle they are derived from.

9. Now, as you can draw the circle with compasses, so you can draw any ellipse with a bit of thread and two pins.* But as you cannot stick your picture over with pins, nor find out, for any given ellipse, without a long mathematical operation, where the pins should go, or how long the thread should be, there is now no escape for you from the necessity of drawing the flattened shape of the sixpence with free hand.

10. And, therefore, that we may have a little more freedom for it, we will take a larger, more generally attainable, and more reverently classic coin; namely, the 'Soldo,' or solid thing, from whose Italian name, heroes who fight for pay were first called Soldiers, or, in English, Pennyworthmen. Curiously, on taking one by chance out of my pocket, it proves to be a Double Obolus, (Charon's fare!—and back again, let us hope,) or Ten Mites, of which two make a Five-thing. Inscribed to that effect on one side—

ΔΙΩΒΟΛΟΝ

ΙΟ

ΛΕΠΤΑ

while the other bears an effigy not quite so curly in the hair as an ancient Herakles, written around thus,—

ΓΕΩΡΓΙΟΣ Α

ΒΑΣΙΛΕΥΣ ΤΩΝ ΕΛΛΗΝΩΝ

* No method of drawing it by points will give a finely continuous line, until the hand is free in passing through the points.

I lay this on a sheet of white paper on the table; and, the image and superscription being, for our perspective purposes, just now indifferent, I will suppose you have similarly placed a penny before you for contemplation.

11. Take next a sheet of moderately thick note-paper, and folding down a piece of it sharply, cut out of the folded edge a small flat arch, which, when you open the sheet, will give you an oval aperture, somewhat smaller than the penny.

Holding the paper with this opening in it upright, adjust the opening to some given point of sight, so that you see the penny exactly through it. You can trim the cut edge till it fits exactly, and you will then see the penny apparently painted on the paper between you and it, on a smaller scale.

If you make the opening no larger than a grain of oats, and hold the paper near you, and the penny two or three feet back, you will get a charming little image of it, very pretty and quaint to behold; and by cutting apertures of different sizes, you will convince yourself that you don't see the penny of any given size, but that you judge of its actual size by guessing at its distance, the real image on the retina of the eye being far smaller than the smallest hole you can cut in the paper.

12. Now if, supposing you already have some skill in painting, you try to produce an image of the penny which shall look exactly like it, seen through any of these openings, beside the opening, you will soon feel how absurd it is to make the opening small, since it is impossible to draw with fineness enough quite to imitate the image seen through any of these diminished apertures. But if you cut the opening only a hair's-breadth less wide than the coin, you may arrange the paper close to it by putting the card and penny on the edge of a book, and then paint the simple image of what you see (penny only, mind, not the cast shadow of it), so that you can't tell the one from the other; and that will be right, if your only object is to paint the penny. It will

be right also for a flower, or a fruit, or a feather, or aught else which you are observing simply for its own sake.

13. But it will be *natural-history* painting, not great painter's painting. A great painter cares only to paint his penny while the steward gives it to the laborer, or his twopence while the Good Samaritan gives it to the host. And then it must be so painted as you would see it at the distance where you can also see the Samaritan.

14. *Perfectly*, however, at that distance. Not sketched or slurred, in order to bring out the solid Samaritan in relief from the aerial twopence.

And by being 'perfectly' painted at that distance, I mean, as it would be seen by the human eye in the perfect power of youth. That forever indescribable instrument, aidless, is the proper means of sight, and test of all laws of work which bear upon aspect of things, for human beings.

15. Having got thus much of general principle defined, we return to our own immediate business, now simplified by having ascertained that our elliptic outline is to be of the width of the penny proper, within a hair's-breadth, so that, practically, we may take accurate measure of the diameter, and on that diameter practice drawing ellipses of different degrees of fatness. If you have a master to help you, and see that they are well drawn, I need not give you farther direction at this stage; but if not, and we are to go on by ourselves, we must have some more compass work; which reserving for next chapter, I will conclude this one with a few words to more advanced students on the use of outline in study from nature.

16. I. Lead, or silver point, outline.

It is the only one capable of perfection, and the best of all means for gaining intellectual knowledge of form. Of the degrees in which shade may be wisely united with it, the drawings of the figure in the early Florentine schools give every possible example: but the severe method of engraved outline used on Etruscan metal-work is the standard appointed by the laws of Fésolé. The finest application of

such method may be seen in the Florentine engravings, of which more or less perfect facsimiles are given in my 'Ariadne Florentina.' Raphael's silver point outline, for the figure, and Turner's lead outline in landscape, are beyond all rivalry in abstract of graceful and essential fact. Of Turner's lead outlines, examples enough exist in the National Gallery to supply all the schools in England, when they are properly distributed.*

17. II. Pen, or wood-cut, outline. The best means, of primal study of composition, and for giving vigorous impression to simple spectators. The wood-cuts of almost any Italian books towards 1500, most of Dürer's (*a*),—all Holbein's; but especially those of the 'Dance of Death' (*b*), and the etchings by Turner himself in the 'Liber Studiorum,' are standards of it (*c*). With a light wash of thin color above, it is the noblest method of intellectual study of composition; so employed by all the great Florentine draughtsmen, and by Mantegna (*d*). Holbein and Turner carry the method forward into full chiaroscuro; so also Sir Joshua in his first sketches of pictures (*e*).

18. III. Outline with the pencil. Much as I have worked on illuminated manuscripts, I have never yet been able to distinguish, clearly, penciled outlines from the penned rubrics. But I shall gradually give large examples from thirteenth century work which will be for beginners to copy

* My kind friend Mr. Burton is now so fast bringing all things under his control into good working order at the National Gallery, that I have good hope, by the help of his influence with the Trustees, such distribution may be soon effected.

(*a*) I have put the complete series of the life of the Virgin in the St. George's Museum, Sheffield.

(*b*) First edition, also in Sheffield Museum.

(*c*) 'Æsacus and Hesperie,' and 'The Falls of the Reuss,' in Sheffield Museum.

(*d*) 'The Triumph of Joseph.' Florentine drawing in Sheffield Museum.

(*e*) Two, in Sheffield Museum.

with the pen, and for advanced pupils to follow with the pencil.

19. The following notes, from the close of one of my Oxford lectures on landscape, contain the greater part of what it is necessary farther to say to advanced students * on this subject.

When forms, as of trees or mountain edges, are so complex that you cannot follow them in detail, you are to inclose them with a careful outside limit, taking in their main masses. Suppose you have a map to draw on a small scale, the kind of outline which a good geographical draughtsman gives to the generalized capes and bays of a country, is that by which you are to define too complex masses in landscapes.

An outline thus perfectly made, with absolute decision, and with a wash of one color above it, is the most masterly of all methods of light and shade study, with limited time, when the forms of the objects to be drawn are clear and unaffected by mist.

But without any wash of color, such an outline is the most valuable of all means of obtaining such memoranda of any scene as may explain to another person, or record for yourself, what is most important in its features; only when it is thus used, some modification is admitted in its treatment, and always some slight addition of shade becomes necessary in order that the outline may contain the utmost information possible. Into this question of added shade I shall proceed hereafter.

20. For the sum of present conclusions: observe that in all drawings in which flat washes of color are associated with outline, the first great point is entirely to suppress the

* I find this book terribly difficult to arrange; for if I did it quite rightly, I should make the exercises and instructions progressive and consecutive; but then, nobody would see the reason for them till we came to the end; and I am so encumbered with other work that I think it best now to get this done in the way likeliest to make each part immediately useful. Otherwise, this chapter should have been all about right lines only, and then we should have had one on the arrangement of right lines, followed by curves, and arrangement of curves.

influences of impatience and affectation, so that if you fail, you may know exactly in what the failure consists. Be sure that you spread your color as steadily as if you were painting a house wall, filling in every spot of white to the extremest corner, and removing every grain of superfluous color in nooks and along edges. Then when the tint is dry, you will be able to say that it is either too warm or cold, paler or darker than you meant it to be. It cannot possibly come quite right till you have long experience; only, let there be no doubt in your mind as to the point in which it is wrong; and next time you will do better.

21. I cannot too strongly, or too often, warn you against the perils of affectation. Sometimes color lightly broken, or boldly dashed, will produce a far better instant effect than a quietly laid tint;—and it looks so dexterous, or so powerful, or so fortunate, that you are sure to find everybody liking your work better for its insolence. But never allow yourself in such things. Efface at once a happy accident—let nothing divert you from the purpose you began with—nothing divert or confuse you in the course of its attainment; let the utmost strength of your work be in its continence, and the crowning grace of it in serenity.

And even when you know that time will not permit you to finish, do a little piece of your drawing rightly, rather than the whole falsely: and let the non-completion consist either in that part of the paper is left white, or that only a foundation has been laid up to a certain point, and the second colors have not gone on. Let your work be a good outline—or part of one; a good first tint—or part of one; but not, in any sense, a sketch; in no point, or measure, fluttered, neglected, or experimental. In this manner you will never be in a state of weak exultation at an undeserved triumph; neither will you be mortified by an inexplicable failure. From the beginning you will know that more than moderate success is impossible, and that when you fall short of that due degree, the reason may be ascertained, and a lesson learned. As far as my own experience reaches, the greater part of the

fatigue of drawing consists in doubt or disappointment, not in actual effort or reasonable application of thought; and the best counsels I have to give you may be summed in these,—to be constant to your first purpose, content with the skill you are sure of commanding, and desirous only of the praises which belong to patience and discretion.

THE END OF THE FIRST PART OF THE FIRST EXERCISE.

THE SECOND PART OF THE FIRST EXERCISE. — The object of this part is to show the manner in which the curves of the first exercise may be drawn with the greatest accuracy and ease. It is necessary to observe that the curves of the first exercise are all of the same nature, and that they may be drawn by the same method. The method is as follows: — Let a circle be drawn with its centre at the origin of the axes, and let its radius be equal to the length of the semi-axis major of the ellipse. Then, let a point be taken on the circumference of the circle, and let a tangent be drawn to the circle at that point. The intersection of the tangent and the semi-axis major will be the focus of the ellipse. The ellipse may then be drawn by the method of the first exercise.

THE THIRD PART OF THE FIRST EXERCISE. — The object of this part is to show the manner in which the curves of the second exercise may be drawn with the greatest accuracy and ease. It is necessary to observe that the curves of the second exercise are all of the same nature, and that they may be drawn by the same method. The method is as follows: — Let a circle be drawn with its centre at the origin of the axes, and let its radius be equal to the length of the semi-axis major of the ellipse. Then, let a point be taken on the circumference of the circle, and let a tangent be drawn to the circle at that point. The intersection of the tangent and the semi-axis major will be the focus of the ellipse. The ellipse may then be drawn by the method of the first exercise.

THE FOURTH PART OF THE FIRST EXERCISE. — The object of this part is to show the manner in which the curves of the third exercise may be drawn with the greatest accuracy and ease. It is necessary to observe that the curves of the third exercise are all of the same nature, and that they may be drawn by the same method. The method is as follows: — Let a circle be drawn with its centre at the origin of the axes, and let its radius be equal to the length of the semi-axis major of the ellipse. Then, let a point be taken on the circumference of the circle, and let a tangent be drawn to the circle at that point. The intersection of the tangent and the semi-axis major will be the focus of the ellipse. The ellipse may then be drawn by the method of the first exercise.

CHAPTER V.

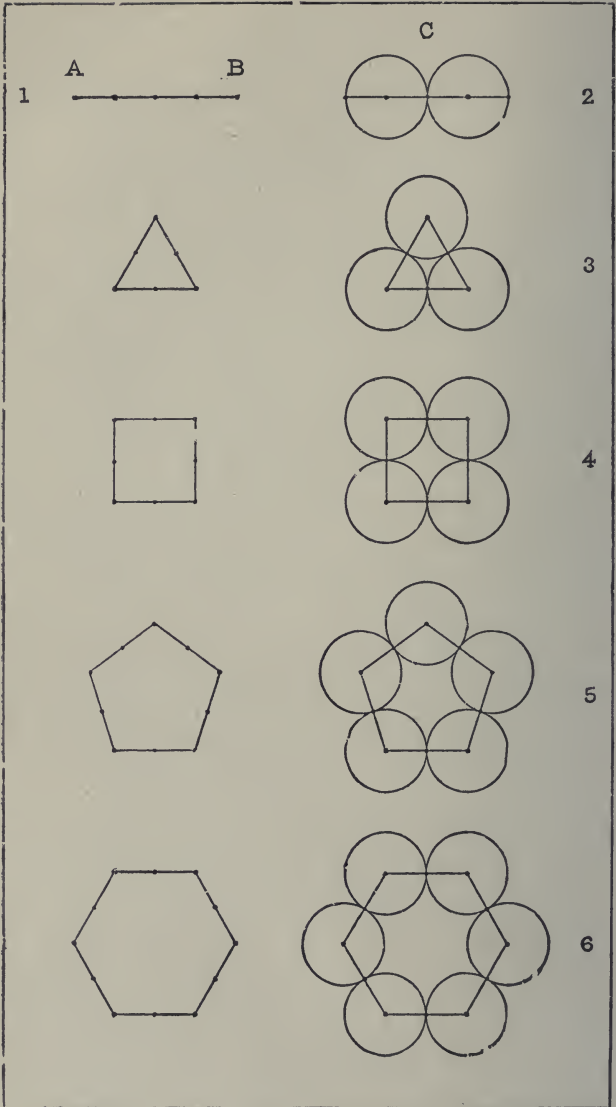
OF ELEMENTARY FORM.

1. IN the 15th paragraph of the preceding chapter, we were obliged to leave the drawing of our ellipse till we had done some more compass work. For, indeed, all curves of subtle nature must be at first drawn through such a series of points as may accurately define them; and afterwards without points, by the free hand.

And it is better in first practice to make these points for definition very distinct and large; and even sometimes to consider them rather as beads strung upon the line, as if it were a thread, than as mere points through which it passes.

2. It is wise to do this, not only in order that the points themselves may be easily and unmistakably set, but because all beautiful lines are beautiful, or delightful to sight, in *showing the directions in which material things may be wisely arranged, or may serviceably move*. Thus, in Plate 1, the curve which terminates the hen's feather pleases me, and ought to please *you*, better than the point of the shield, partly because it expresses such relation between the lengths of the filaments of the plume as may fit the feather to act best upon the air, for flight; or, in unison with other such softly inlaid armor, for covering.

3. The first order of arrangement in substance is that of coherence into a globe; as in a drop of water, in rain, and dew,—or, hollow, in a bubble: and this same kind of coherence takes place gradually in solid matter, forming spherical knots, or crystallizations. Whether in dew, foam, or any other minutely beaded structure, the simple form is always



Drawn by J. Ruskin.

Engraved by G. Allen.

SCHOOLS OF ST. GEORGE.

Elementary Drawing, Plate III.

PRIMAL GROUPS OF THE CIRCLE.

pleasant to the human mind; and the 'pearl'—to which the most precious object of human pursuit is likened by its wisest guide,—derives its delightfulness merely from its being of this perfect form, constructed of a substance of lovely color.

4. Then the second orders of arrangement are those in which several beads or globes are associated in groups under definite laws, of which of course the simplest is that they should set themselves together as close as possible.

Take, therefore, eight marbles or beads* about three-quarters of an inch in diameter; and place successively two, three, four, etc., as near as they will go. You can but let the first two touch, but the three will form a triangular group, the four a square one, and so on, up to the octagon. These are the first general types of all crystalline or inorganic grouping: you must know their properties well; and therefore you must draw them neatly.

5. Draw first the line an inch long, which you have already practiced, and set upon it five dots, two large and three small, dividing it into quarter inches,—A B, Plate 3. Then from the large dots as centers, through the small ones, draw the two circles touching each other, as at C.

The triangle, equal-sided, each side half an inch, and the square, in the same dimensions, with their dots, and their groups of circles, are given in succession in the plate; and you will proceed to draw the pentagon, hexagon, heptagon, and octagon group, in the same manner, all of them half an inch in the side. All to be done with the lead, free hand, corrected by test of compasses till you get them moderately right, and finally drawn over the lead with common steel pen and ink.

The degree of patience with which you repeat, to perfection, this very tedious exercise, will be a wholesome measure of your resolution and general moral temper, and the exercise

* In St. George's schools, they are to be of pale rose-colored or amber-colored quartz, with the prettiest veins I can find it bearing: there are any quantity of tons of rich stone ready for us, waste on our beaches.

itself a discipline at once of temper and hand. On the other hand, to do it hurriedly or inattentively is of no use whatever, either to mind or hand.

6. While you are persevering in this exercise, you must also construct the same figures with your instruments, as delicately as you can; but complete them, as in Plate 4, by drawing semicircles on the sides of each rectilinear figure; and, with the same radius, the portions of circles which will include the angles of the same figures, placed in a parallel series, inclosing each figure finally in a circle.

7. You have thus the first two leading groups of what architects call Foils;—*i.e.*, trefoils, quatrefoils, cinquefoils,

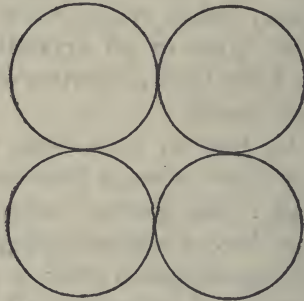


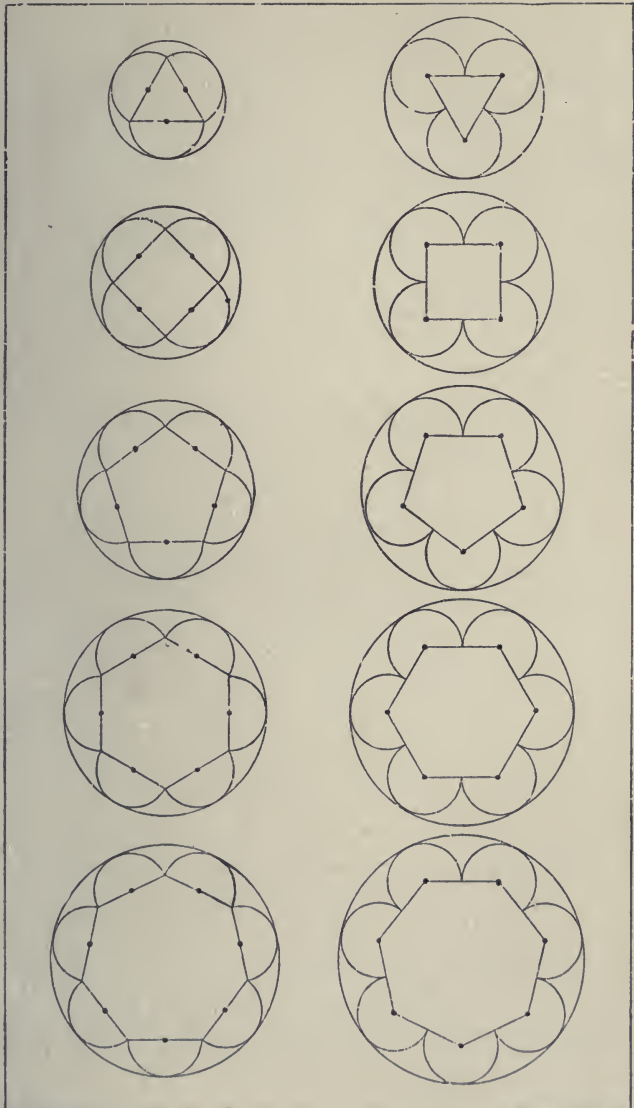
FIG. 3.

etc.,—their French names indicating the original dominance of French design in their architectural use.

The entire figures may be best called 'Roses,' the word rose, or rose window, being applied by the French to the richest groups of them. And you are to call the point which is the center of each entire figure the 'Rose-center.' The arcs, you are to call 'foils;' the centers of the arcs, 'foil-centers;' and the small points where the arcs meet, 'cusps,' from *cuspis*, Latin for a point.

8. From the group of circle-segments thus constructed, we might at once deduce the higher forms of symmetrical (or equally measured*) architecture, and of symmetrical flowers,

* As distinguished from the studiously varied design, executed in all its



Drawn by J. Ruskin.

Engraved by G. Allen.

SCHOOLS OF ST GEORGE.

Elementary Drawing, Plate IV.

PRIMAL GROUPS OF FOILS WITH ARC-CENTRES.

sixpences having got "liberty and independence." It is a form of dissolution.

Next push up one of the coins below, so as to touch the one already raised, as in Figure 5.

You dislike this group even more than the last, I should think. *Two* of the sixpences have got liberty and independence now! Two, if referred to the first quatrefoil; or, if the three upper ones are considered as a staggering trefoil, three.

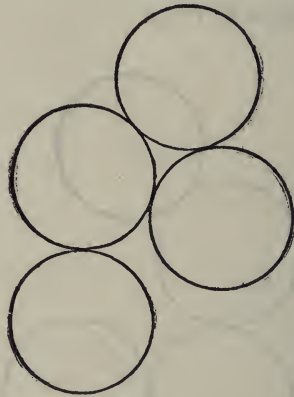


FIG. 5.

Push the lower one up to join them, then; Figure 6.

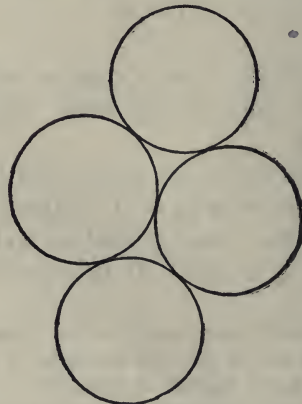


FIG. 6.

That is a little more comfortable, but the whole figure seems squinting or tumbling. You can't let it stay so!

Put it upright, then; Figure 7.

And now you like it as well as the original group, or, it may be, even better. You ought to like it better, for it is not only as completely under law as the original group, but it is under *two* laws instead of one, variously determining its height and width. The more laws anything, or any creature, interprets, and obeys, the more beautiful it is, (*cæteris paribus*).

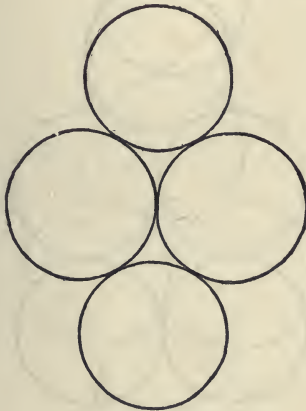


FIG. 7.

10. You find then, for first conclusion, that you naturally like things to be under law; and, secondly, that your feeling of the pleasantness in a group of separate, (and not living), objects, like this, involves some reference to the great law of gravity, which makes you feel it desirable that things should stand upright, unless they have clearly some reason for stooping.

It will, however, I should think, be nearly indifferent to you whether you look at Figure 7 as I have placed it, or from the side of the page. Whether it is broad or high will not matter, so long as it is balanced. But you see the charm

of it is increased, in either case, by *inequality* of dimension, in one direction or another; by the introduction, that is to say, of another law, modifying the first.

11. Next, let us take *five* sixpences, which we see will at once fall into the pleasant equal arrangement, Figure 5, Plate iii.; but we will now break up that, by putting four together, as in our first quatrefoil here; and the fifth on the top, (Figure 8).

But you feel this new arrangement awkward. The uppermost circle has no intelligible connection with the group

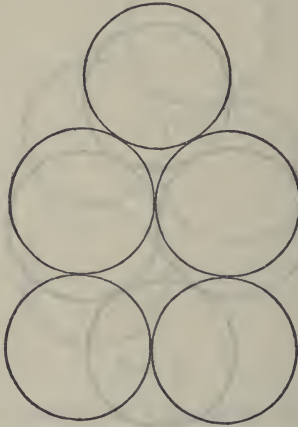


FIG. 8.

below, which, as a foundation, would be needlessly large for it. If you turn the figure upside-down, however, I think you will like it better; for the lowest circle now seems a little related to the others, like a pendant. But the form is still unsatisfactory.

Take the group in Figure 7, above, then, and add the fifth sixpence to the top of that, (Fig. 9).

Are you not better pleased? There seems now a unity of vertical position in three circles, and of level position in two: and you get also some suggestion of a pendant, or if you turn the page upside-down, of a statant,* cross.

* Clearly, this Latin derivative is needed in English, besides our own

If, however, you now raise the two level circles, and the lowest, so as to get the arrangement in Figure 10, the result is a quite balanced group; more pleasing, if I mistake not, than any we have arrived at yet, because we have here perfect order, with an unequal succession of magnitudes in mass and interval, between the outer circles.

12. By now gradually increasing the number of coins, we can deduce a large variety of groups more or less pleasing,

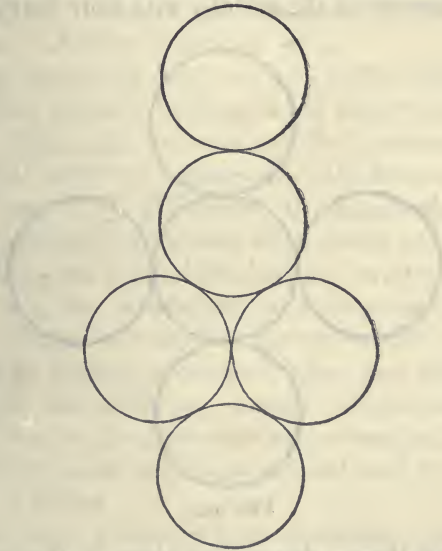


FIG. 9.

which you will find, on the whole, throw themselves either into *garlanded* shapes,—seven, eight, and so on, in a circle, with differences in the intervals;—or into *stellar* shapes, of which the simplest is the cross, and the more complex will

“standing;” to distinguish, on occasion, a permanently fixed “state” of anything, from a temporary pause. Stant, (as in extant,) would be merely the translation of “standing”; so I assume a participle of the obsolete “statare” to connect the adopted word with Statina, (the goddess), Statue, and State.

be composed of five, six, seven, or more rays, of various length. Then farther, successive garlands may be added to the garlands, or crossing rays, producing checkers, if we have unlimited command of sixpences. But by no artifice of arrangement shall we be able to produce any perfectly interesting or beautiful form, as long as our coins *remain of the same size*.

13. But now take some fourpenny and threepenny pieces also; and, beginning with the cross, of five orbs (Fig. 10), try first a sixpence in the middle, with four fourpenny pieces

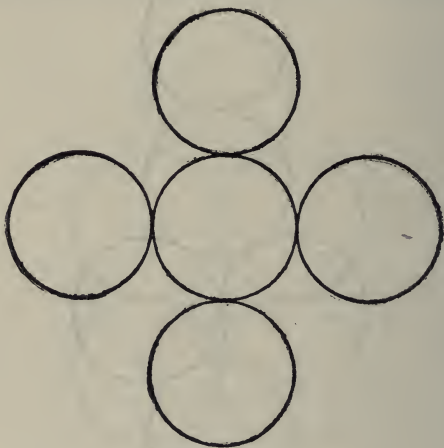


FIG. 10.

round it; and then a fourpenny piece in the middle, with four sixpences round it. Either group will be more pleasing to you than the original one: and by varying the intervals, and removing the surrounding coins to greater or less distances, you may pleasantly vary even this single group to a curious extent; while if you increase the number of coins, and farther vary their sizes, adding shillings and half-crowns to your original resources, you will find the producible variety of pleasant figures quite infinite.

14. But, supposing your natural taste and feeling moderately good, you will always feel some of the forms you arrive

at to be pleasanter than others; for no explicable reason, but that there is relation between their sizes and distances which satisfies you as being under some harmonious law. Up to a certain point, I could perhaps show you logical cause for these preferences; but the moment the groups become really interesting, their relations will be found far too complex for definition, and our choice of one or another can no more be directed by rule, or explained by reason, than the degrees of enjoyment can be dictated, or the reasons for admiration demonstrated, as we look from Cassiopeia to Orion, or from the Pleiades to Arcturus with his sons.

15. Three principles only you will find certain:

- A, That perfect dependence of everything on everything else, is necessary for pleasantness;
- B, That such dependence can only become perfect by means of differences in magnitude, (or other qualities, of course, when others are introduced).
- C, That some kind of balance, or 'equity,' is necessary for our satisfaction in arrangements which are clearly *subjected to human interference*.

You will be perhaps surprised, when you think of it, to find that this last condition—human interference,—is very greatly involved in the principles of contemplative pleasure; and that your eyes are both metaphysical, and moral, in their approval and blame.

Thus you have probably been fastidious, and found it necessary to be so, before you could please yourself with enough precision in balance of coin against coin, and of one division of each coin-group against its fellow. But you would not, I think, desire to arrange any of the constellations I have just named, in two parallel parts; or to make the rock-forms on one side of a mountain valley, merely the reversed images of those upon the other?

16. Yet, even among these, you are sensible of a kind of order, and rejoice in it; nay, you find a higher pleasure in the mystery of it. You would not desire to see Orion and the Pleiades broken up, and scattered over the sky in a shower

of equal-sized stars, among which you could no more trace group, or line, or pre-eminence. Still less would you desire to see the stars, though of different magnitudes, arrested on the vault of heaven in a checker-pattern, with the largest stars at the angles, or appointed to rise and set in erected ranks, the same at zenith and horizon; never bowed, and never supine.

17. The beautiful passage in Humboldt's 'Personal Narrative' in which he describes the effect on his mind of the first sight of the Southern Cross, may most fitly close, confirm, and illumine, a chapter too wearisome; by which, however, I trust that you will be led into happier trust in the natural likings and dislikings which are the proper groundwork of taste in all things, finding that in things *directly prepared for the service of men*, a quite palpable order and symmetry are felt by him to be beautiful; but in the things which involve interest wider than his own, the mystery of a less comprehensible order becomes necessary for their sublimity, as, for instance, the forms of mountains, or balances of stars, expressing their birth in epochs of creation during which man had no existence, and their functions in preparing for a future state of the world, over which he has no control.

"We saw distinctly for the first time the Cross of the South only, in the night of the 4th and 5th of July, in the sixteenth degree of latitude; it was strongly inclined, and appeared from time to time between the clouds, the center of which, furrowed by uncondensed lightnings, reflected a silver light.

"*If a traveler may be permitted to speak of his personal emotions,** I shall add, that in this night I saw one of the reveries of my earliest youth accomplished.

* * * * *

* I italicize, because the reserve of the Personal Narrative, in this respect, is almost majestic; and entirely exemplary as compared with the explosive egotism of the modern tourist.

“ At a period when I studied the heavens, *not with the intention of devoting myself to astronomy*, but only to acquire a knowledge of the stars,* I was agitated by fear unknown to those who love a sedentary life. It seemed painful to me to renounce the hope of beholding those beautiful constellations, which border the southern pole. Impatient to rove in the equinoctial regions, I could not raise my eyes toward the starry vault without thinking of the Cross of the South, and without recalling the sublime passage of Dante, which the most celebrated commentators have applied to this constellation :

‘Io mi volsi a man destra, e posi mente
 All’ altro polo; e vidi quattro stelle
 Non viste mai fuor ch’ alla prima gente.
 Goder pareo lo ciel di lor fiammelle;
 O settentrional vedovo sito,
 Poi che privato se’ di mirar quelle!’

“ The two great stars which mark the summit and the foot of the Cross having nearly the same right ascension, it follows hence that the constellation is almost perpendicular at the moment when it passes the meridian. This circumstance is known to every nation that lives beyond the tropics or in the Southern hemisphere. It has been observed at what hour of the night, in different seasons, the Cross of the South is erect, or inclined. It is a time-piece that advances very regularly near four minutes a day; and no other group of stars exhibits, to the naked eye, an observation of time so easily made. How often have we heard our guides exclaim, in the savannahs of the Venezuela, or in the desert extending from Lima to Truxillo, ‘Midnight is past, the Cross begins to bend!’ How often those words reminded us of that affecting scene where Paul and Virginia, seated near the source of the river of Latainers, conversed together for the last time, and where the old man, at the sight of the Southern Cross, warns them that it is time to separate!”

* Again note the difference between modestly useful, and vainly ambitious, study.

CHAPTER VI.

OF ELEMENTARY ORGANIC STRUCTURE.

1. AMONG the various arrangements made of the coins in our last experiment, it appeared that those were on the whole pleasantest which fell into some crosslet or stellar disposition, referred to a center. The reader might perhaps suppose that, in making him feel this, I was preparing the way for assertion of the form of the cross, as a beautiful one, for religious reasons. But this is not so. I have given the St. George's cross for first practice, that our art-work might be thus early associated with the other studies of our schools; but not as in anywise a dominant or especially beautiful form. On the contrary, if we reduce it into perfectly simple lines, the pure cross (a stellar group of four lines at right angles) will be found to look meager when compared with the stellar groups of five, six, or seven rays; and, in fact, its chief use, when employed as a decoration, is not in its possession of any symbolic or abstract charm, but as the simplest expression of accurate, and easy, mathematical division of space. It is thus of great value in the decoration of severe architecture, where it is definitely associated with square masonry: but nothing could be more painful than its substitution, in the form of tracery bars, for the stellar tracery of any fine rose window; though, in such a position, its symbolic office would be perfect. The most imaginative and religious symbolist will, I think, be surprised to find, if he thus tries it fairly, how little symbolism can please, if physical beauty be refused.

2. Nor do I doubt that the author of the book on heraldry above referred to,* is right in tracing some of the earliest forms of the heraldic cross itself "to the metal clamps or

* 'Pursuivant of Arms,' p. 48.

braces required to strengthen and protect the long kite-shaped shield of the eleventh and twelfth centuries." The quartering of the field, which afterwards became the foundation of the arrangement of bearings, was thus naturally suggested by the laws of first construction. But the 'Somerset Herald' pushes his modern mechanics too far, when he confuses the Cross Fleury with an "ornamental clamp" ! (p. 49). It is directly traceable to the Byzantine Fleur-de-lys, and that to Homer's Iris.

3. So also with respect to the primary forms of crystals, the pleasure of the eye in perceiving that the several lines of a group may be traced to some common center is partly referable to our mere joy in orderly construction: but, in our general judgment of design, it is founded on our sense of the nature of radiant light and heat as the strength of all organic life, together with our interest in noticing either growth from a common root in plants, or dependence on a nervous or otherwise vital center in animal organism, indicating not merely order of construction, but process or sequence of animation.

4. The smallest number of lines which can completely express this law of radiation * is five; or if a completely opposite symmetry is required, six; and the families of all the beautiful flowers prepared for the direct service and delight of man are constructed on these two primary schemes,—the rose representing the fivefold radiation, and the lily the sixfold, (produced by the two triangles of the sepals and petals, crossed, in the figure called by the Arabs 'Solomon's Seal'); while the fourfold, or cruciform, are on the whole restricted to more servile utility. One plant only, that I know of, in the Rose family,—the tormentilla,—subdues itself to the cruciform type with a grace in its simplicity

* The groups of three, though often very lovely, do not clearly express radiation, but simply cohesion; because by merely crowding three globes close to each other, you at once get a perfect triune form; but to put them in a circle of five or more, at equal distances from a center, requires an ordering and proportionate force.

which makes it, in mountain pastures, the fitting companion of the heathbell and thyme.

5. I shall have occasion enough, during the flower study carried on in 'Proserpina,' to analyze the laws of stellar grouping in flowers. In this book I shall go on at once to the more complex forms produced by radiation under some continually altering force, either of growth from a root, or of motion from some given point under given law.

We will therefore return to our feather from the hen's wing, and try to find out, by close examination, why we think it, and other feathers, pretty.

6. You must observe first that the feathers of all birds fall into three great classes:

(1) The Feathers for Clothing.

(2) The Feathers for Action.

(3) The Feathers for Ornament.

(1) Feathers for clothing are again necessarily divided into (A) those which clothe for warmth, (down,) which are the bird's blankets and flannel; and (B) those which clothe it for defense against weather or violence; these last bearing a beautiful resemblance partly to the tiles of a house, partly to a knight's armor. They are imbricated against rain and wind, like tiles; but they play and move over each other like mail, actually becoming effective armor to many of the warrior birds; as in the partial protection of others from impact of driven boughs, or hail, or even shot.

(2) Feathers for action. These are essentially, again, either (A) feathers of force, in the wing, or (B) of guidance, in the tail, and are the noblest in structure which the bird possesses.

(3) Feathers for ornament. These are, again, to be divided into (A), those which modify the bird's form, (being then mostly imposed as a crest on the head, or expanded as a fan at the tail, or floating as a train of ethereal softness,) and (B) those which modify its color; these last being, for the most part, only finer conditions of the armor feathers on the neck, breast, and back, while the force-feathers usually

are reserved and quiet in color though more or less mottled, clouded, or barred.

7. Before proceeding to any closer observation of these three classes of feathers, the student must observe generally how they must *all* be modified according to the bird's size. Chiefly, of course, the feathers of action, since these are strictly under physical laws determining the scale of organic strength. It is just as impossible for a large bird to move its wings with a rapid stroke, as for the sail of a windmill, or of a ship, to vibrate like a lady's fan. Therefore none but small birds can give a vibratory, (or insect-like,) motion to their wings. On the other hand, none but large birds can *sail* without stroke, because small wings cannot rest on a space of air large enough to sustain the body.

8. Therefore, broadly, first of all, birds range—with relation to their flight—into three great classes: (A) the *sailing* birds, who, having given themselves once a forward impulse, can rest, merely with their wings open, on the winds and clouds; (B) the properly so called *flying* birds, who must *strike* with their wings, no less to sustain themselves than to advance; and, lastly, (C) the *fluttering* birds, who can keep their wings quivering like those of a fly, and therefore pause at will, in one spot in the air, over a flower, or over their nest. And of these three classes, the first are necessarily large birds, (frigate-bird, albatross, condor, and the like); the second, of average bird-size, falling chiefly between the limiting proportions of the swallow and sea-gull; for a smaller bird than the swift has not power enough over the air, and a larger one than the sea-gull has not power enough over its wings, to be a perfect flyer.

Finally, the birds of vibratory wing are all necessarily minute, represented chiefly by the humming-birds; but sufficiently even by our own smaller and sprightlier pets: the robin's quiver of his wing in leaping, for instance, is far too swift to be distinctly seen.

9. These are the three main divisions of the birds for whom the function of the wing is mainly *flight*.

But to us, human creatures, there is a class of birds more pathetically interesting—those in whom the function of the wing is essentially, not flight, but the protection of their young.

Of these, the two most familiar to us are the domestic fowl and the partridge; and there is nothing in arrangement of plumage approaching the exquisiteness of that in the vaulted roofs of their expanded *covering* wings; nor does anything I know in decoration rival the consummate art of the minute cirrus-clouding of the partridge's breast.

10. But before we can understand either the structure of the striking plumes, or the tincture of the decorative ones, we must learn the manner in which all plumes whatsoever are primarily made.

Any feather—as you know, but had better nevertheless take the first you can find in your hand to look at, as you read on)—is composed of a central quill, like the central rib of a leaf, with fine rays branching from it on each side, united, if the feather be a strong one, into a more or less silky tissue or 'web,' as it has hitherto been called by naturalists.* Not unreasonably, in some respects; for truly

* So far as one can make out what they call anything! The following lucid passage is all that in the seven hundred closely printed pages of Mr. Swainson's popular ornithology, the innocent reader will find vouchsafed to him in description of feathers, (§ 71, p. 77, vol. 1):—"The regular *external feathers* of the body, like those of the wings and tail, are very differently constructed from such as are called the down; they are externally composed of three parts or substances: 1. The down; 2. The laminae, or webs (!); and, 3. The shaft, or quill, on the sides of which the two former are arranged. The downy laminae, or webs of these feathers, are very different from the substance we have just described, since they not only have a distinct shaft of their own, but the laminae which spring from both sides of it are perceptibly and regularly arranged, although, from being devoid of all elasticity, (!) like true down, they do not unite and repose parallel to each other. The soft downy laminae are always situated close to the insertion of the quill into the skin; and although, for obvious reasons, they are more developed on those feathers which cover the body, they likewise exist on such as are employed in flight, as shown in the quill of a goose; and as they are always concealed from sight when the plumage is uninjured, and are not exposed to the action of the air, so they are

it is a woven thing, with a warp and woof, beautiful as Penelope's or Arachne's tapestry; but with this of marvel beyond beauty in it, that it is a web which re-weaves itself when you tear it! Closes itself as perfectly as a sea-wave torn by the winds, being indeed nothing else than a wave of silken sea, which the winds trouble enough; and fret along the edge of it, like fretful Benacus at its shore; but which, tear it as they will, closes into its unruffled strength again in an instant.

11. *There* is a problem for you, and your engines,—good my Manchester friends! What with Thirlmere to fill your boilers, and cotton grown by free niggers, surely the forces of the universe must be favorable to you,—and, indeed, wholly at your disposal. Yet of late I have heard that your various tissues tear too easily;—how if you could produce them such as that they could mend themselves again without help from a sewing-machine! (for I find my glove-fingers, sewn up the seam by that great economist of labor, split down all at once like walnut-shells). But even that Arabian web which could be *packed* in a walnut-shell would have no chance of rivaling with yours if you could match the delicate spirit that weaves—a sparrow's wing. (I suppose you have no other birds to look at now—within fifty miles.)

However, from the bodies of birds, plucked for eating—always colorless. The third part of a feather consists in the true *external* laminae, which are arranged in two series, one on each side the shaft; and these sides are called the *external* and the *internal* (!) webs. To outward appearance, the form of the laminae which compose these webs appears to be much the same as that of down, which has been just described, with this difference only, that the laminae are stronger and elastic, and seem to stick together, and form a parallel series, which the downy laminae do not. Now, this singular adhesiveness is seen by the microscope to be occasioned by the filaments on each side of these laminae being hooked into those of the next laminae; so that one supports the other in the same position; while their elasticity (!) makes them return to their proper place in the series, if by any accident they are discomposed. This will be sufficient to give the reader a correct idea of the general construction of a feather, without going into further details on the microscopic appearance of the parts."

or the skins of them, stuffed for wearing, I do not doubt but the reader, though inhabitant of modern English towns, may still possess himself, or herself, of a feather large enough to be easily studied; * nay, I believe British Law still indites itself with the legitimate goose-feather. If that be attainable, with grateful reverence to law, in general, and to real Scripture, which is only possible with quill or reed; and to real music, of Doric eagerness, touched of old for the oaks and rills, while the still morn went out with sandals gray,—we will therewith begin our inquiry into the weaving of plumes.

12. And now, for convenience of description, observe, that as all feathers lie backwards from the bird's head towards its tail, when we hold one in our hand by the point of the quill so as to look at its upper surface, we are virtually looking from the bird's head towards the tail of it: therefore, unless with warning of the contrary, I shall always describe the feathers which belong to the bird's right side, which, when we look down on its back and wing, with the head towards us, curved for the most part with the convex edge to our own left; and when we look down on its throat and breast, with the head towards us, curve for the most part with the convex edge to our right.

13. Choosing, therefore, a goose feather from the bird's right wing, and holding it with the upper surface upwards, you see it curves to your own right, with convex edge to the left; and that it is composed mainly of the rapidly tapering quill, with its two so-called 'webs,' one on each side, meeting in a more or less blunt point at the top, like that of a kitchen carving-knife.

14. But I do not like the word 'web' for these tissues of the feather, for two reasons: the first, that it would get confused with the word we *must* use for the membrane of the foot; and the second, that feathers of force continually resemble swords or cimeters, striking both with flat and edge; and one cannot rightly talk of striking with a web!

* My ingenious friend, Mr. W. E. Dawes, of 72, Denmark Hill, will attend scrupulously to a feather, to any orders sent him from "Fésole."

And I have been a long time (this number of "Fésolé" having, indeed, been materially hindered by this hesitation) in deciding upon any name likely to be acceptable to my readers for these all-important parts of the plume structure. The one I have at last fixed upon, 'Fret,'* will not on the instant approve itself to them; but they will be content with it, I believe, in use. I take it from the constant fretting or rippling of the surface of the tissue, even when it is not torn along its edge,† and one can fancy a sword 'fretted' at its edge, easily enough.

15. The two frets are composed, you see, each of—(I was going to write, innumerable; but they are quite numerable, though many,)—smaller feathers; for they are nothing less, each of them, than a perfect little feather in its own way. You will find it convenient to call these the 'rays.' In a goose's feather there are from thirty to forty in an inch of the fret; three or four hundred, that is to say, on each side of the quill. You see—and much more, may feel—how firmly these plumelets fasten themselves together to form the continuous strength of silken tissue of the fret.

16. Pull one away from the rest, and you find it composed of a white piece of the substance of the quill, extended into a long, slightly hollowed strip, something like the awn of a grain of oats—each edge of this narrow white strip being fringed with an exquisitely minute series of minor points, or teeth, like the teeth of a comb, becoming softer and longer towards the end of the ray, where also the flat chaff-like strip of quill becomes little more than a fine rod.

Again, for names clear and short enough to be pleasantly useful, I was here much at a loss, and cannot more satisfactorily extricate myself than by calling the awnlike shaft simply the 'Shaft;' and the fine points of its serrated edges, (and whatever, in other feathers, these become,) 'Barbs.'

17. If, with a sharp pair of scissors, you cut the two frets

* 'Vane' is used in the English translation of Cuvier; but would be too apt to suggest rotation in the quill, as in a weathercock.

† See "Love's Meinie," Lecture I., page 18.

away from the quill, down the whole length of it, you will find the fret still hold together, inlaid, woven together by their barbs into a white soft ribbon,—feeling just like satin to the finger, and looking like it on the under surface, which is exquisitely lustrous and smooth. And it needs a lens of some power to show clearly the texture of the fine barbs that weave the web, as it used to be called, of the whole.

Nevertheless, in the goose feather, the rays terminate somewhat irregularly and raggedly; and it will be better now to take for further examination the plume of a more strongly flying bird. I take that of the common sea-gull,* where, in exquisite gray and dark-brown, the first elements of variegation are also shown at the extremity of the plume.

18. And here the edge of the fret is rippled indeed, but not torn; the quill tapers with exquisite subtlety; and another important part of plumage occurs at the root of it. There the shafts of the rays lose their stiffness and breadth; they become mere threads, on which the barbs become long and fine like hairs; and the whole plumelet becomes a wavy, wild-wandering thing, each at last entangled with its fluttering neighbors, and forming what we call the ‘down’ of the feather, where the bird needs to be kept warm.

19. When the shafts change into these wandering threads, they will be called filaments; and the barbs, when they become fine detached hairs, will be called cilia. I am very sorry to have all this nomenclature to inflict at once; but it is absolutely needful, all of it; nor difficult to learn, if you will only keep a feather in your hand as you learn it. A feather always consists of the quill and its rays; a ray, of the shaft and its barbs. Flexible shafts are filaments; and flexible barbs, cilia.

20. In none of the works which I at present possess on ornithology, is any account given of the general form or nature of any of these parts of a plume; although of all subjects for scientific investigation, supremely serviceable

* *Larus Canus*, (Linnæus,) ‘White Seamew.’ St. George’s English name for it.

to youth, this is, one should have thought, the nearest and most tempting, to any person of frank heart. To begin with it, we must think of all feathers first as exactly intermediate between the fur of animals and scales of fish. They are fur, made strong, and arranged in scales or plates, partly defensive armor, partly active instruments of motion or action.* And there are definitely three textures of this strengthened fur, variously pleasurable to the eye: the first, a dead texture like that of simple silk in its cocoon, or wool; receptant of pattern colors in definite stain, as in the thrush or partridge; secondly, a texture like that of lustrous shot silk, soft, but reflecting different colors in different lights, as in the dove, pheasant, and peacock; thirdly, a quite brilliant texture, flaming like metal,—nay, sometimes more brightly than any polished armor; and this also reflective of different colors in different lights, as in the humming-bird. Between these three typical kinds of luster, there is every gradation; the tender luster of the dove's plumage being intermediate between the bloomy softness of the partridge, and the more than rainbow iridescence of the peacock; while the semi-metallic, unctuous, or pitchy luster of the raven, is midway between the silken and metallic groups.

21. These different modes of luster and color depend entirely on the structure of the barbs and cilia. I do not often invite my readers to use a microscope; but for once, and for a little while, we will take the tormenting aid of it.

In all feathers used for flight, the barbs are many and minute, for the purpose of locking the shafts well together. But in covering and decorative plumes, they themselves become principal, and the shafts subordinate. And, since of flying plumes we have first taken the sea-gull's wing

* Compare "Love's Meinie," Lecture I., p. 16; but I find myself now compelled to give more definite analysis of structure by the entirely inconceivable, (till one discovers it,) absence of any such analysis in books on birds. Their writers all go straight at the bones, like hungry dogs; and spit out the feathers as if they were choked by them.

feather, of covering plumes we will first take one from the sea-gull's breast.

22. I take one, therefore, from quite the middle of a sea-mew's breast, where the frets are equal in breadth on each side. You see, first, that the whole plume is bent almost into the shape of a cup; and that the soft white luster plays variously on its rounded surface as you turn it more or less to the light. This is the first condition of all beautiful forms. Until you can express this rounded surface, you need not think you can draw them at all.

23. But for the present, I only want you to notice the structure and order of its rays. Any single shaft with its lateral barbs, towards the top of the feather, you will find approximately of the form Fig. 11, the central shaft being



FIG. 11.

so fine that towards the extremity it is quite lost sight of; and the end of the rays being not formed by the extremity of the shaft, with barbs tapering to it, but by the forked separation, like the notch of an arrow, of the two ultimate barbs.

Which, please, observe to be indeed the normal form of all feathers, as opposed to that of leaves; so that the end of a feather, however finely disguised, is normally as at A, Fig. 12; but of a leaf, as at B; the arrow-like form of the feather

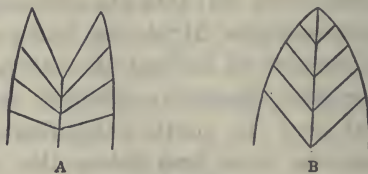


FIG. 12.

being developed into the most lovely duplicated symmetries of outline and pattern, by which, throughout, the color designs of feathers, and of floral petals, (which are the sign of the dual or married life in the flower, raising it

towards the rank of animal nature,) are distinguished from the color designs in minerals, and in merely wood-forming, as opposed to floral, or seed-forming, leaves.

24. You will observe also, in the detached ray, that the barbs lengthen downwards, and most distinctly from the middle downwards; and now taking up the wing-feather again, you will see that its frets being constructed by the imbrication, or laying over each other like the tiles of a



Fig. 13.

house, of the edges of the successive rays,—on the upper or outer surface of the plume, the edges are overlaid *towards* the plume-*point*, like breaking waves over each other towards shore; and of course, on the under surface, reversed, and overlaid towards the root of the quill. You may understand this in a moment by cutting out roughly three little bits of cardboard, of this shape (Fig. 13), and drawing the direc-

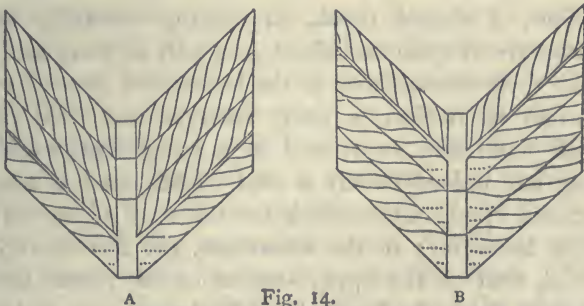


Fig. 14.

tions of the barbs on them: I cut their ends square because they are too short to represent the lengths of real rays, but are quite long enough to illustrate their imbrication. Lay first the three of them in this position, (Fig. 14, A,) with

their points towards you, one above the other; then put the edge of the lowest *over* the edge of that above it, and the edge of that over the third, so as just to show the central shaft, and you will get three edges, with their barbs all vertical, or nearly so: that is the structure of the plume's *upper* surface. Then put the edges of the farther off ones over the nearer, and you get three edges with their barbs all transverse, (Fig. 14, B,) which is the structure of the plume's *lower* surface. There are, of course, endless subtleties and changes of adjustment, but that is the first general law to be understood.

25. It follows, as a necessary consequence of this arrangement, that we may generally speak of the barbs which form the upper surface of the feather as the upper, or longitudinal, barbs, meaning those which lie parallel to the quill, pointing to the end of the feather; and of those which form the under surface of the feather as the lower, or transverse, barbs,—lying, that is to say, nearly transversely across the feather, at right angles to the quill. And farther, as you see that the quill shows itself clearly projecting from the under surface of the plume, so the shafts show themselves clearly projecting, in a corduroy fashion, on the under surface of the fret, the transverse barbs being seen only in the furrows between them.

26. Now, I should think, in looking carefully at this close structure of quill and shaft, you will be more and more struck by their resemblance to the beams and tiles of a roof. The feather is, in fact, a finely raftered and tiled roof to throw off wind and rain; and in a large family of birds the wing has indeed chiefly a roof's office, and is not only raftered and tiled, but *vaulted*, for the roof of the nursery. Of which hereafter; in the meantime, get this clearly into your head, that on the upper surface of the plume the tiles are overlaid from the bird's head backward—so as to have their edges *away* from the wind, that it may slide over them as the bird flies;—and the furrows formed by the barbs lie parallel with the quill, so as to give the least possible friction. The under side of the plume, you may then always no less

easily remember, has the *transverse* barbs; and tile-edges towards the bird's head. The beauty and color of the plume, therefore, depend mainly on the formation of the longitudinal barbs, as long as the fret is close and firm. But it is kept close and firm throughout only in the wing feathers; expanding in the decorative ones, under entirely different conditions.

27. Looking more closely at your sea-mew's breast-feather, you will see that the rays lock themselves close only in the middle of it; and that this close-locked space is limited by a quite definite line, outside of which the rays contract their barbs into a thick and close thread, each such thread detached from its neighbors, and forming a snowy fringe of pure white, while the close-locked part is toned, by the shades which show you its structure, into a silver gray.

Finally, at the root of the feather, not only do its own rays change into down, but underneath, you find a supplementary plume attached, composed of nothing else but down.

28. I find no account, in any of my books on birds, of the range of these supplementary under-plumes,—the bird's body-clothing. I find the sea-gull has them nearly all over its body, neck, breast, and back alike; the small feathers on the head are nothing else than down. But besides these, or in the place of these, some birds have down covering the skin itself; with which, however, the painter has nothing to do, nor even with the supplementary plumes: and already indeed I have allowed the pupil, in using the microscope at all, to go beyond the proper limits of artistic investigation. Yet, while we have the lens in our hand, put on for once its full power to look at the separate cilia of the down. They are all jointed like canes; and have, doubtless, mechanism at the joints which no eye nor lens can trace. The same structure, modified, increases the luster of the true barbs in colored plumes.

One of the simplest of these I will now take, from the back of the peacock, for a first study of plume-radiation.

29. Its general outline is that of the Norman shield $P \Delta V$

B, Fig. 15; but within this outline, the frets are close-woven only within the battledore-shaped space $p a v b$; and between $A a$, and $b B$, they expand their shafts into filaments, and their barbs into cilia, and become 'down.'

We are only able to determine the arrangement of the

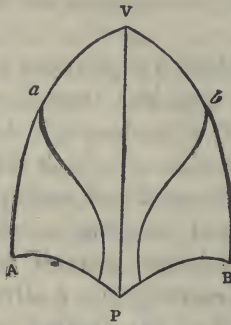


FIG. 15.

shafts within this closely-woven space $p a v b$, which you will find to be typically thus. The shafts remaining parallel most of the way up, towards the top of the plume, gradually throw themselves forward so as to get round without gap. But as, while they are thus getting round, they are not fast-

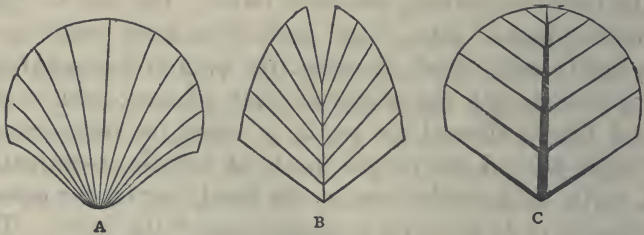
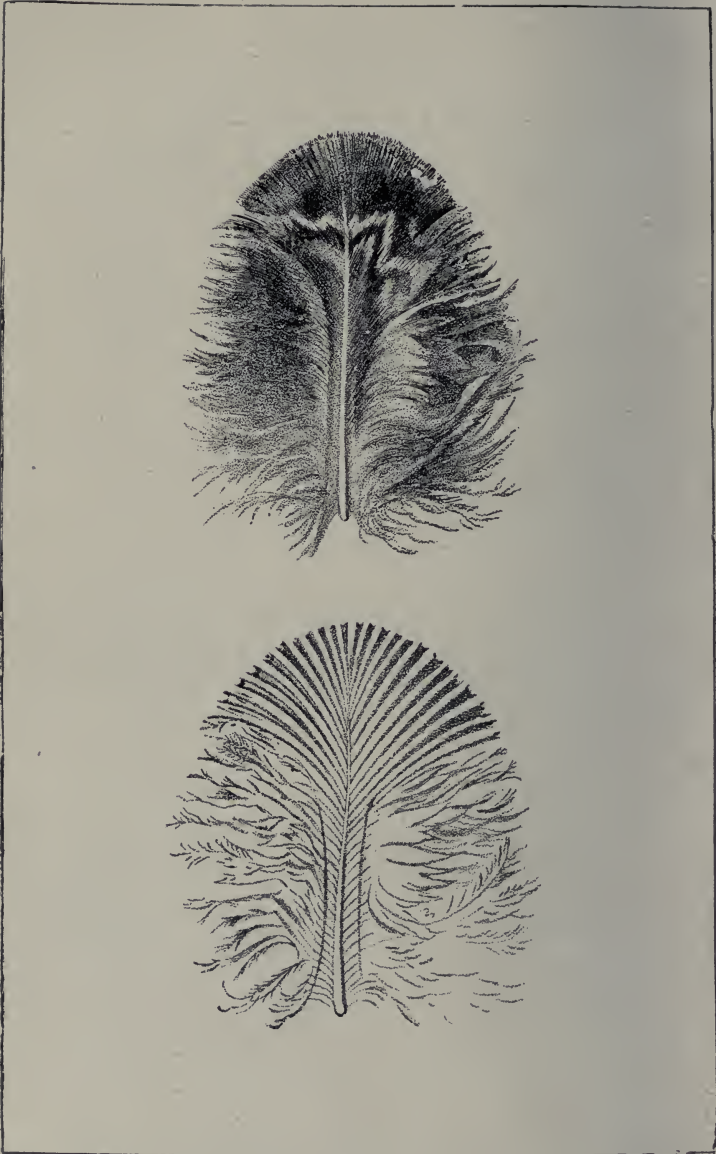


FIG. 16.

ened on a central pivot like the rays of a fan, but have still to take, each its *ascending* place on the sides of the quill, we get a method of radiation which you will find convenient henceforward to call 'plume-radiation,' (Fig. 16, B,) which is precisely intermediate between two other great modes of structure—shell-radiation, A, and frond-radiation, C.



DECORATIVE PLUMAGE-1 PEACOCK.

Schools of St. George. Elementary Drawing. Plate. V.

30. You may perhaps have thought yourself very hardly treated in being obliged to begin your natural history drawing with so delicate a thing as a feather. But you should rather be very grateful to me, for not having given you, instead, a bit of moss, or a cockle-shell! The last, which you might perhaps fancy the easiest of the three, is in reality quite hopelessly difficult, and in its ultimate condition, inimitable by art. Bewick can engrave feathers to the point of deceptive similitude; and Hunt can paint a bird's-nest built of feathers, lichen, and moss. But neither the one nor the other ever attempted to render the diverging lines which have their origin in the hinge of the commonest bivalve shell.

31. These exactly reverse the condition of frond radiation; in that, while the frond-branch is thick at the origin, and diminishes to the extremity, the shell flutings, infinitely minute at the origin, expand into vigorous undulation at the edge. But the essential point you have now to observe is, that the shell radiation is from a central *point*, and has no supporting or continuous stem; that the plume radiation is a combination of stem and center; and that the frond radiation has a stem throughout, all the way up. It is to be called frond, not tree, radiation, because trees in great part of their structure are like plumage, whereas the fern-frond is entirely and accurately distinct in its structure.

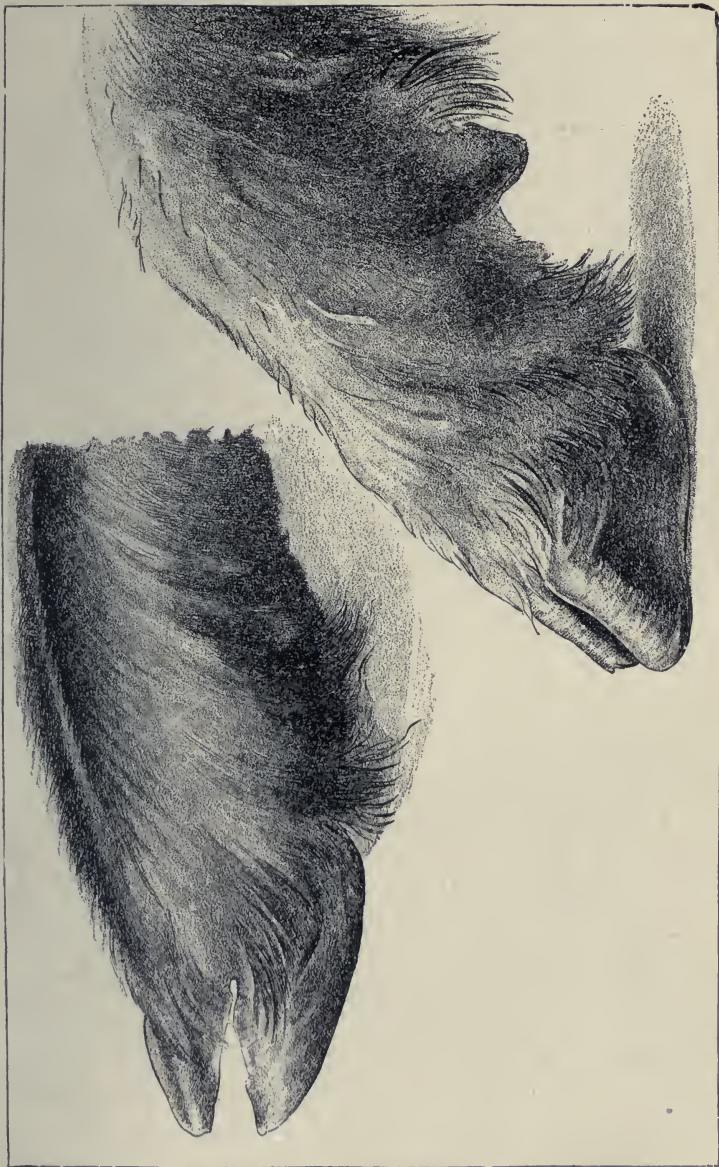
32. And now, at last, I draw the entire feather as well as I can in lampblack, for an exercise to you in that material; putting a copy of the first stage of the work below it, Plate V. This lower figure may be with advantage copied by beginners; with the pencil and rather dry lampblack, over slight lead outline; the upper one is for advanced practice, though such minute drawing, where the pattern is wrought out with separate lines, is of course only introductory to true painter's work. But it is the best possible introduction, being exactly intermediate between such execution as Dürer's, of the wing in the greater Fortune, and Turner's or Holbein's with the broad pencil,—of which in due time.

33. Respecting the two exercises in Plate V., observe, the

lower figure is not an outline of the feather, to be filled up: it is the first stage of the drawing completed above it. In order to draw the curves of the shafts harmoniously, you must first put in a smaller number of guiding lines, and then fill in between. But in this primary state, the radiant lines cannot but remind you, if you are at all familiar with architecture, of a Greek 'honeysuckle' ornament, the fact being that the said ornament has nothing at all to do with honeysuckles; but is a general expression of the radiate organic power of natural forms, evermore delightful to human eyes; and the beauty of it depends on just as subtle care in bringing the curves into harmonious flow, as you will have to use in drawing this plume.

34. Nevertheless, that students possessing some already practiced power may not be left without field for its exercise, I have given in Plate VI. an example of the use of ink and lampblack with the common pen and broad wash. The outline is to be made with common ink in any ordinary pen—steel or quill does not matter, if not too fine—and, after it is thoroughly dry, the shade put on with a single wash, adding the necessary darks, or taking out light with the dry brush, as the tint dries, but allowing no retouch after it is once dry. The reason of this law is, first, to concentrate the attention on the fullest possible expression of forms by the tint first laid, which is always the pleasantest that *can* be laid, and, secondly, that the shades may be all necessarily gradated by running into the wet tint, and no edge left to be modified afterwards. The outline, that it may be indelible, is made with common ink; its slight softening by the subsequent wash being properly calculated on; but it must not be washed twice over.

35. The exercise in the lower figure of Plate I. is an example of Dürer's manner; but I do not care to compel the pupil to go through much of this, because it is always unsatisfactory at its finest. Dürer himself has to indicate the sweep of his plume with a current external line; and even Bewick could not have done plume patterns in line, unless he had



BLACK SHEEP'S TROTTERS. PEN OUTLINE WITH SINGLE WASH.

Schools of St. George. Elementary Drawing. Plate VI.

had the advantage of being able to cut out his white; but with the pencil, and due patience in the use of it, everything linear in plumes may be rightly indicated, and the pattern followed all the time.

The minute moss-like *fringe* at the edge of the feather in Plate V. introduces us, however, to another condition of decorative plumage, which, though not bearing on our immediate subject of radiation, we may as well notice at once.

If you examine a fine tail-feather of the peacock, above the eye of it, you will find a transparent space formed by the *cessation* of the barbs along a certain portion of the shaft. On the most scintillant of the rays, which have green and golden barbs, and in the lovely blue rays of the breast-plumes, these cessations of the barbs become alternate cuts or jags; while at the end of the long brown wing-feathers, they *comply* with the colored pattern: so that, at the end of the clouded plume, its pattern, instead of being constructed of brown and *white* barbs, is constructed of brown—and *no* barbs,—but vacant spaces. The decorative use of this transparency consists in letting the color of one plume *through* that of the other, so that not only every possible artifice is employed to obtain the most lovely play of color on the plume itself; but, with mystery through mystery, the one glows and flushes through the other, like cloud seen through cloud. But now, before we can learn how either glow, or flush, or bloom is to be painted, we must learn our alphabet of color itself.

CHAPTER VII.

OF THE TWELVE ZODIACAL COLORS.

1. IN my introductory Oxford lectures you will find it stated (§ 130) that “*all objects appear to the eye merely as masses of color;*” and (§§ 134, 175) that shadows are as full in color as lights are, every possible shade being a light to the shades below it, and every possible light, a shade to the lights above it, till you come to absolute darkness on one side, and to the sun on the other. Therefore, you are to consider all the various pieces either of shaded or lighted color, out of which any scene whatsoever is composed, simply as the patches of a Harlequin’s jacket—of which some are black, some red, some blue, some golden; but of which you are to imitate every one, *by the same methods.*

2. It is of great importance that you should understand how much this statement implies. In almost all the received codes of art-instruction, you will be told that shadows should be transparent, and lights solid. You will find also, when you begin drawing yourselves, that your shadows, whether laid with lead, chalk, or pencil, will for the most part really look like dirt or blotches on the paper, till you cross-hatch or stipple them, so as to give them a look of network; upon which they instantly become more or less like shade; or, as it is called, ‘transparent.’ And you will find a most powerful and attractive school of art founded on the general principle of laying a literally transparent brown all over the picture, for the shade; and striking the lights upon it with opaque white.

3. Now the statement I have just made to you (in § 1)

implies the falseness of all such theories and methods.* And I mean to assert that falsity in the most positive manner. Shadows are not more transparent than lights, nor lights than shadows; both are transparent, when they express space; both are opaque, when they express substance; and both are to be imitated in precisely the same manner, and with the same quality, of pigment. The only technical law which is indeed constant, and which requires to be observed with strictness, is precisely that the method *shall be* uniform. You may take a white ground, and lay darks on it, leaving the white for lights; or you may take a dark ground, and lay lights on it, leaving the dark for darks: in either case you must go on as you begin, and not introduce the other method where it suits you. A glass painter must make his *whole* picture transparent; and a fresco painter, his whole picture opaque.

4. Get, then, this plain principle well infixed in your minds. Here is a crocus—there is the sun—here a piece of coal—there, the hollow of the coal-scuttle it came out of. They are every one but patches of color,—some yellow, some black; and must be painted in the same manner, with whatever yellow or black ^{is} ~~is~~ handy.

5. Suppose it, however, admitted that lights and shades are to be produced in the same manner; we have farther to ask, what that manner may best be?

You will continually hear artists disputing about grounds, glazings, vehicles, varnishes, transparencies, opacities, oleaginousnesses. All that talk is as idle as the east wind. Get a flat surface that won't crack,—some colored substance that will stick upon it, and remain always of the color it was when you put it on,—and a pig's bristle or two, wedged in a stick; and if you can't paint, you are no painter; and had better not talk about the art.

The one thing you have to learn—the one power truly

* Essentially, the use of transparent brown by Rubens, (followed by Sir Joshua with asphaltum,) ruined the Netherland schools of color, and has rendered a school of color in England hitherto impossible.

called that of 'painting'—is to lay on any colored substance, whatever its consistence may be, (from mortar to ether,) *at once*, of the exact tint you want, in the exact form you want, and in the exact quantity you want. *That* is painting.

6. Now, you are well aware that to play on the violin well, requires some practice. Painting is playing on a color-violin, seventy-times-seven stringed, and inventing your tune as you play it! That is the easy, simple, straightforward business you have to learn. Here is your catgut and your mahogany,—better or worse quality of both of course there may be,—Cremona tone, and so on, to be discussed with due care, in due time;—you cannot paint miniature on the sail of a fishing-boat, nor do the fine work with hog's bristles that you can with camel's hair:—all these catgut and bristle questions shall have their place; but, the primary question of all is—*can you play?*

7. Perfectly, you never can, but by birth-gift. The entirely first-rate musicians and painters are born, like Mercury;—their words are music, and their touch is gold: sound and color wait on them from their youth; and no practice will ever enable other human creatures to do anything like them. The most favorable conditions, the most docile and apt temper, and the unwearied practice of life, will never enable any painter of merely average human capacity to lay a single touch like Gainsborough, Velasquez, Tintoret, or Luini. But to understand that the matter must still depend on practice *as well* as on genius,—that painting is not one whit less, but more, difficult than playing on an instrument,—and that your care as a student, on the whole, is not to be given to the quality of your piano, but of your touch,—this is the great fact which I have to teach you respecting color; this is the root of all excellent doing and perceiving.

And you will be utterly amazed, when once you begin to feel what color means, to find how many qualities which appear to result from peculiar method and material do indeed depend only on loveliness of execution; and how divine the law of nature is, which has so connected the immortality of

beauty with patience of industry, that by precision and rightness of laborious art you may at last literally command the rainbow to stay, and forbid the sun to set.

8. To-day, then, you are to begin to learn your notes—to hammer out, steadily, your first five-finger exercises; and as in music you have first to play in true time, with stubborn firmness, so in color the first thing you have to learn is to lay it flat, and well within limits. You shall have it first within linear limits of extreme simplicity, and you must be content to fill spaces so inclosed, again and again and again, till you are perfectly sure of your skill up to that elementary point.

9. So far, then, of the manner in which you are to lay your color;—next comes the more debatable question yet, what kind of color you are thus to lay,—sober, or bright. For you are likely often to have heard it said that people of taste like subdued or dull colors, and that only vulgar persons like bright ones.

But I believe you will find the standard of color I am going to give you, an extremely safe one—the morning sky. Love *that* rightly with all your heart, and soul, and eyes; and you are established in foundation-laws of color. The white, blue, purple, gold, scarlet, and ruby of morning clouds, are meant to be entirely delightful to the human creatures whom the ‘clouds and light’ sustain. Be sure you are always ready to see *them*, the moment they are painted by God for you.

But you must not rest in these. It is possible to love them intensely, and yet to have no understanding of the modesty or tenderness of color.

Therefore, next to the crystalline firmament over you, the crystalline earth beneath your feet is to be your standard.

Flint, reduced to a natural glass containing about ten per cent. of water, forms the opal; which gives every lower hue of the prism in as true perfection as the clouds; but not the scarlet or gold, both which are crude and vulgar in opal. Its perfect hues are the green, blue, and purple. Emerald

and lapis-lazuli give central green and blue in fullness; and the natural hues of all true gems, and of the marbles, jaspers, and chalcedonies, are types of intermediate tint: the oxides of iron, especially, of reds. All these earth-colors are curiously prepared for right standards: there is no misleading in them.

10. Not so when we come to the colors of flowers and animals. Some of these are entirely pure and heavenly; the dove can contend with the opal, the rose with the clouds, and the gentian with the sky; but many animals and flowers are stained with vulgar, vicious, or discordant colors. But all those intended for the service and companionship of man are typically fair in color; and therefore especially the fruits and flowers of temperate climates;—the purple of the grape and plum; the red of the currant and strawberry, and of the expressed juices of these,—the wine that “giveth his color in the cup,” and the “lucent syrup tinct with cinnamon.” With these, in various subordination, are associated the infinitudes of quiet and harmonized color on which the eye is intended to repose; the softer duns and browns of birds and animals, made quaint by figured patterns; and the tender green and gray of vegetation and rock.

11. No science, but only innocence, gayety of heart, and ordinary health and common sense, are needed, to enable us to enjoy all these natural colors rightly. But the more grave hues, which, in the system of nature, are associated with danger or death, have become, during the later practice of art, pleasing in a mysterious way to the most accomplished artists: so that the greatest masters of the sixteenth century may be recognized chiefly by their power of producing beauty with subdued colors. I cannot enter here into the most subtle and vital question of the difference between the subdued colors of Velasquez or Tintoret, and the daubed gray and black of the modern French school:* still less into any

* One great cause of the delay which has taken place in the publication of this book has been my doubt of the proper time and degree in which study in subdued color should be undertaken. For though, on the one hand, the entirely barbarous glare of modern colored illustration would in-

analysis of the grotesque inconsistency which makes the foreign modern schools, generally, repaint all sober and tender pictures with glaring colors, and yet reduce the pure colors of landscape to drab and brown. In order to explain any of these phenomena, I should have first to dwell on the moral sense which has induced us, in ordinary language, to use the metaphor of 'chastity' for the virtue of beautifully subdued color; and then to explain how the chastity of

duce me to order practice in subdued color merely for antidote to it; on the other, the affectation,—or morbid reality,—of delight in subdued color, are among the fatalest errors of semi-artists. The attacks on Turner in his greatest time were grounded in real feeling, on the part of his adversaries, of the solemnity in the subdued tones of the schools of classic landscape.

To a certain extent, therefore, the manner of study in color required of any student must be left to the discretion of the master, who alone can determine what qualities of color the pupil is least sensible to; and set before him examples of brightness, if he has become affectedly grave,—and of subdued harmony, if he errs by crudeness and discord. But the general law must be to practice first in pure color, and then, as our sense of what is grave and noble in life and conduct increases, to express what feeling we have of such things in the hues belonging to them, remembering, however, always, that the instinct for grave color is not at all an index of a grave mind. I have had curious proof of this in my own experience. When I was an entirely frivolous and giddy boy, I was fondest of what seemed to me 'sublime' in gloomy art, just in proportion as I was insensible to crudeness and glare in the bright colors which I enjoyed for their own sake: and the first old picture I ever tried to copy was the small Rembrandt in the Louvre, of the Supper at Emmaus. But now, when my inner mind is as sad as it is well possible for any man's to be, and my thoughts are for the most part occupied in very earnest manner, and with very grave subjects, my ideal of color is that which I now assign for the standard of St. George's schools,—the color of sunrise, and of Angelico.

Why not, then, of the rainbow, simply?

Practically, I *must* use those of the rainbow to begin with. But, for standards, I give the sunrise and Angelico, because the sun and he both use gold for yellow. Which is indeed an infinite gain; if poor Turner had only been able to use gold for yellow too, we had never heard any vulgar jests about him. But, in cloud-painting, nobody can use gold except the sun himself,—while, on angel's wings, it can but barely be managed, if you have old Etruscan blood in your fingers,—not here, by English ones, cramped in their clutch of Indian or Californian gold.

Britomart or Perdita differs from the vileness of souls that despise love. But no subtle inquiries or demonstrations can be admitted in writing primal laws; nor will they ever be needed, by those who obey them. The things which are naturally pleasant to innocence and youth, will be forever pleasant to us, both in this life and in that which is to come; and the same law which makes the babe delight in its coral, and the girl in the cornelian pebble she gathers from the wet and shining beach, will still rule their joy within the walls whose light shall be "like a stone most precious, even like a jasper stone, clear as crystal."

12. These things, then, above named, without any debate, are to be received by you as *standards* of color: by admiration of which you may irrefragably test the rightness of your sense, and by imitation* of which you can form and order all the principles of your practice. The morning sky, primarily, I repeat; and then from the dawn onwards. There are no grays nor violets which can come near the perfectness of a pure dawn; no gradations of other shade can be compared with the tenderness of its transitions. Dawn, with the waning moon, (it is always best so, because the keen gleam of the thin crescent shows the full depth of the relative gray,) determines for you all that is lovely in subdued hue and subdued light. Then the passages into sunrise determine for you all that is best in the utmost glory of color. Next to these, having constant office in the pleasures of the day, come the colors of the earth, and her fruits and flowers; the iron ochers being the standards of homely and comfortable red, always ruling the pictures of the greatest masters at Venice, as opposed to the vulgar vermilion of the Dutch; hence they have taken the general name of *Venetian* red: then, gold itself, for standard of lustrous yellow, tempered so wisely with gray in the shades; silver, of lustrous

* 'Imitation'—I use the word advisedly. The last and best lesson I ever had in color was a vain endeavor to estimate the time which Angelico must have taken to paint a small amethyst on the breast of his St. Laurence.

white, tempered in like manner; marble and snow, of white pure, glowing into various amber and rose under sunlight: then the useful blossoms and fruits;—peach and almond blossom, with the wild rose, of the paler reds; the clarissas, of full reds, etc.; and the fruits, of such hues modified by texture or bloom. Once learn to paint a peach, an apricot, and a greengage, and you have nothing more to know in the modes of color enhanced by texture. Corn is the standard of brown,—moss of green; and in general, whatever is good for human life is also made beautiful to human sight, not by “association of ideas,” but by appointment of God that in the bread we rightly break for our lips, we shall best see the power and grace of the Light He gave for our eyes.

13. The perfect order of the colors in this gentle glory is, of course, normal in the rainbow,—namely, counting from outside to inside, red, yellow, and blue, with their combinations,*—namely, scarlet, formed by yellow with red; green, formed by blue with yellow; and purple, formed by red with blue.

14. But neither in rainbow prism, nor opal, are any of these tints seen in separation. They pass into each other by imperceptible gradation, nor can any entirely beautiful color exist without this quality. Between each secondary, therefore, and the primaries of which it is composed, there are an infinite series of tints; inclining on one side to one primary, on the other to the other; thus green passes into blue through a series of bluish greens, which are of great importance in the painting of sea and sky;—and it passes into yellow through a series of golden greens, which are of no less importance in painting earth and flowers. Now it is very tiresome to have to mix names as well as colors, and always say ‘bluish green,’ or ‘reddish purple,’ instead of

* Strictly speaking, the rainbow is *all* combination; the primary colors being only lines of transition, and the bands consisting of scarlet, green, and purple; the scarlet being not an especially pure or agreeable one in its general resultant hue on cloud-gray. The green and violet are very lovely when seen over white cloud.

having proper special names for these intermediate tints. Practically we have such names for several of them; 'orange,' for instance, is the intermediate between scarlet and yellow; 'lilac' one of the paler tints between purple and red; and 'violet' that between purple and blue. But we must now have our code of names complete; and that we may manage this more easily, we will put the colors first in their places.

15. Take your sixpence again; and, with that simple mathematical instrument, draw twelve circles of its size, or at least as closely by its edge as you can,* on a piece of Bristol board, so that you may be able to cut them out, and place them variously. Then take carmine, cobalt, gamboge, orange vermilion, and emerald green; and, marking the circles with the twelve first letters of the alphabet, color 'a' with pure gamboge, 'b' with mixed gamboge and emerald green, 'c' with emerald green, 'd' with emerald green and cobalt, 'e' with cobalt pure, 'f' with two-thirds cobalt and one-third carmine, 'g' with equally mixed cobalt and carmine, 'h' with two-thirds carmine and one-third cobalt, 'i' with carmine pure, 'j' with carmine and vermilion, 'k' with vermilion, 'l' with vermilion and gamboge.

16. But how is all this to be done smoothly and rightly, and how are the thirds to be measured? † Well,—for the

* It is really in practice better to do this than to take compasses, which are nearly sure to slip or get pinched closer, in a beginner's hands, before the twelve circles are all done. But if you like to do it accurately, see Figure 17, p. 74.

† I have vainly endeavored to persuade Messrs. Winsor and Newton to prepare for me powder-colors, of which I could direct half or a quarter grain to be mixed with a measured quantity of water; but I have not given up the notion. In the meantime, the firm have arranged at my request a beginner's box of drawing materials,—namely, colors, brushes, ruler, and compasses fitted with pencil-point. (As this note may be read by many persons, hurriedly, who have not had time to look at the first number, I allow once more, but for the last time in this book, the vulgar use of the words 'pencil' and 'brush.') The working pencil and pen-knife should be always in the pocket, with a small sketch-book, which a student of drawing should consider just as necessary a part of his daily equipment as his watch or purse. Then the color-box, thus composed,

doing of it, I must assume, that in the present artistic and communicative phase of society, the pupil can, at some chance opportunity, see the ordinary process of washing with water-color; or that the child in more happy circumstances may be allowed so to play with 'paints' from its earliest years, as to be under no particular difficulty in producing a uniform stain on a piece of pasteboard. The quantity of pigment to be used cannot be yet defined;—the publication of these opening numbers of *Fésole* has already been so long delayed that I want now to place them in the student's hand, with what easily explicable details I can give, as soon as possible; and the plates requiring care in coloring by hand, which will finally be given as examples, are deferred until I can give my readers some general idea of the system to be adopted. But, for the present need, I can explain all that is wanted without the help of plates, by reference to flower-tints; not that the student is to be vexed by any comparisons of his work with *these*, either in respect of brilliancy or texture: if he can bring his sixpenny circles to an approximate resemblance of as many old-fashioned wafers, it is all that is required of him. He will not be able to do this with one coat of color; and had better allow himself three or four than permit the tints to be uneven.

17. The first tint, pure gamboge, should be brought, as near as may be, up to that of the yellow daffodil,—the buttercup is a little too deep. In fine illumination, and in the best decorative fresco painting, this color is almost exclusively represented by gold, and the student is to give it, habitually, its heraldic name of 'Or.'

The second tint, golden-green, which is continually seen in the most beautiful skies of twilight, and in sun-lighted

gives him all he wants more. For the advanced student, I add the palette, with all needful mathematical instruments and useful colors. I give *him* colors, of finest quality,—being content, for beginners, with what I find one of the best practical colorists in England, my very dear friend Professor Westwood, has found serviceable all his life,—children's colors.

trees and grass, is yet unrepresented by any flower in its fullness; but an extremely pale hue of it, in the primrose, forms the most exquisite opposition, in spring, to the blue of the wood-hyacinth; and we will therefore keep the name, 'Primrose,' for the hue itself.

The third tint, pure green, is, in heraldry, 'verd' on the shields of commoners, and 'Emerald' on those of nobles. We will take for St. George's schools the higher nomenclature, which is also the most intelligible and convenient; and as we complete our color zodiac, we shall thus have the primary and secondary colors named from gems, and the tertiary from flowers.

18. The next following color, however, the tertiary between green and blue, is again not represented distinctly by any flower; but the blue of the *Gentiana Verna* is so associated with the pure green of Alpine pasture, and the color of Alpine lakes, which is precisely the hue we now want a name for, that I will call this beautiful tertiary 'Lucia'; (that being the name given in *Proserpina* to the entire tribe of the gentians,) and especially true to our general conception of luminous power or transparency in this color, which the Greeks gave to the eyes of *Athena*.

19. The fifth color, the primary blue, heraldic 'azure,' or 'sapphire,' we shall always call 'Sapphire'; though, in truth, the sapphire itself never reaches anything like the intensity of this color, as used by the Venetian painters, who took for its representative pure ultramarine. But it is only seen in perfect beauty in some gradations of the blue glass of the twelfth century. For ordinary purposes, cobalt represents it with sufficient accuracy.

20. The sixth color, the tertiary between sapphire and purple, is exactly the hue of the Greek sea, and of the small Greek iris, Homer's *iov*, commonly translated 'violet.' We will call it 'Violet'; our own flower of that name being more or less of the same hue, though paler. I do not know what the 'syrup of violets' was, with which Humboldt stained his test-paper, ('Personal Narrative,' i., p. 165,)

but I am under the impression that an extract of violets may be obtained which will represent this color beautifully and permanently. Smalt is one of its approximate hues.

21. The seventh color, the secondary purple, is the deepest of all the pure colors; it is the heraldic 'purpure,' and 'jacinth'; by us always to be called 'Jacinth.' It is best given by the dark pansy; see the notes on that flower in the seventh number of Proserpina, which will I hope soon be extant.

22. The eighth color, the tertiary between purple and red, corresponds accurately to the general hue and tone of bell-heather, and will be called by us therefore 'Heath.' In various depths and modifications, of which the original tint cannot be known with exactness, it forms the purple ground of the most stately missals between the seventh and twelfth century, such as the Psalter of Boulogne. It was always, however, in these books, I doubt not, a true heath-purple, not a violet.

23. The ninth color, the primary red, heraldic 'gules' and 'ruby,' will be called by us always 'Ruby.' It is not represented accurately by any stable pigment; but crimson lake, or better, carmine, may be used for it in exercises; and rose madder in real painting.

24. The tenth color, the tertiary between red and scarlet, corresponds to the most beautiful dyes of the carnation, and other deeper-stained varieties of the great tribe of the pinks. The mountain pink, indeed, from which they all are in justice named, is of an exquisitely rich, though pale, ruby: but the intense glow of the flower leans towards fiery scarlet in its crimson; and I shall therefore call this tertiary 'Clarissa,' the name of the pink tribe in Proserpina.

25. The eleventh color, the secondary scarlet, heraldic 'tenny' and 'jasper,' is accurately represented by the aluminous silicas, colored scarlet by iron, and will be by us always called 'Jasper.'

26. The twelfth color, the tertiary between scarlet and gold, is most beautifully represented by the golden crocus,

—being the color of the peplus of Athena. We shall call it 'Crocus'; thus naming the group of the most luminous colors from the two chief families of spring flowers, with gold (for the sun) between them.

This, being the brightest, had better be placed uppermost in our circle, and then, taking the rest in the order I have named them, we shall have our complete zodiac thus arranged. (Fig. 17.*)

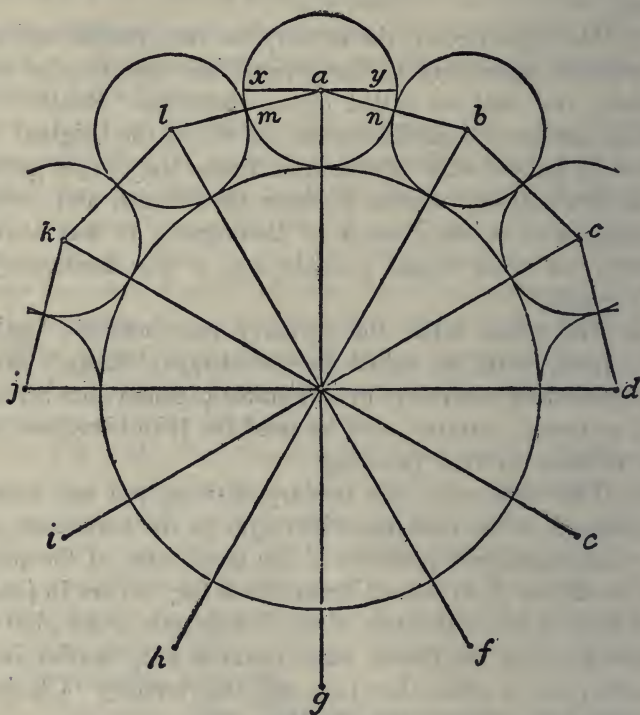


FIG. 17.

27. However rudely the young student may have colored his pieces of cardboard, when he has placed them in contact

* If you choose to construct this figure accurately, draw first the circle xy , of the size of a sixpence, and from its diameter xy , take the angles m at x , n at y , each = the sixth of the quadrant, or fifteen degrees. Draw

with each other in this circular order, he will at once see that they form a luminous gradation, in which the uppermost, Or, is the lightest, and the lowest, Jacinth, the darkest hue.

Every one of the twelve zodiacal colors has thus a pitch of intensity at which its special hue becomes clearly manifest, and above which, or below which, it is not clearly recognized, and may, even in ordinary language, be often spoken of as another color. Crimson, for instance, and pink, are only the dark and light powers of the central Clarissa, and 'rose' the pale power of the central Ruby. A pale jacinth is scarcely ever, in ordinary terms, called purple, but 'lilac.'

28. Nevertheless, in strictness, each color is to be held as extending in unbroken gradation from white to black, through a series of tints, in some cases recognizable throughout for the same color; but in all the darker tones of Jasper, Crocus and Or, becoming what we call 'brown'; and in the darker tints of Lucia and Primrose passing into greens, to which artists have long given special titles of 'Sap,' 'Olive,' 'Prussian,' and the like.

29. After we have studied the modifications of shade itself, in neutral gray, we will take up the gradated scales of each color; dividing them always into a hundred degrees, between white and black; of which the typical or representative hue will be, in every one of the zodiacal colors, at a different height in the scale—the representative power of Or being approximately 20; of Jasper, 30; of Ruby, 50; and of Jacinth, 70. But, for the present, we must be content with much less precise ideas of hue; and begin our practice with little more than the hope of arriving at some effective skill in producing the tints we want, and securing some general conclusions about their effects in companionship with, or opposition to, each other; the principal use of their zodiacal arrangement, above given, being that each color is placed over

the lines a b, a l, each equal to x y : and l and b are the centers of the next circles. Then the perpendiculars from m and n will cut the perpendicular from a in the center of the large circle. And if you get it all to come right, I wish you joy of it.

against its proper opponent;—Jacinth being the hue which most perfectly relieves Or, and Primrose the most lovely opponent to Heath. The stamens and petals of the sweet-william present the loveliest possible type of the opposition of a subtle and subdued Lucia to dark Clarissa. In central spring on the higher Alps, the pansy, (or, where it is wanting, the purple ophryds,) with the bell gentian, and pale yellow furred anemone, complete the entire chord from Or to Jacinth in embroideries as rich as those of an Eastern piece of precious needlework on green silk.* The chord used in the best examples of glass and illumination is Jasper, Jacinth, and Sapphire, on ground of Or: being the scarlet, purple, and blue of the Jewish Tabernacle, with its clasps and furniture of Gold.

30. The best Rubrics of ecclesiastical literature are founded on the opposition of Jasper to Sapphire, which was the principal one in the minds of the illuminators of the thirteenth century. I do not know if this choice was instinctive, or scientific; many far more beautiful might have been adopted; and I continually, and extremely, regret the stern limitation of the lovely penmanship of all minor lettering, for at least a hundred years through the whole of literary Europe, to these two alternating colors. But the fact is that these do quite centrally and accurately express the main opposition of what artists call, and most people feel to be truly called, *warm* colors as opposed to cold; pure blue being the coldest, and pure scarlet the warmest, of abstract hues.

31. Into the mystery of Heat, however, as affecting color-sensation, I must not permit myself yet to enter, though I believe the student of illumination will be enabled at once, by the system given in this chapter, to bring his work under more consistent and helpful law than he has hitherto found written for his use. My students of drawing will find the subject carried on as far as they need follow, in tracing the symbolic meanings of the colors, from the 28th to the 40th paragraph of the seventh chapter of 'Deucalion'; (com-

* Conf. Lane's Arabian Nights, vol. i., p. 480, and vol. ii., p. 395.

pare also 'Eagle's Nest,' and, without requiring, in practice, the adoption of any nomenclature merely fanciful, it may yet be found useful, as an aid to memory for young people, to associate in their minds the order of the zodiacal colors with that of the zodiacal signs. Taking Jacinth for Aries, Or will very fitly be the color of Libra, and blue of Aquarius; other associations by a little graceful and careful thought, may be easily instituted between each color and its constellation; and the motion of the Source of Light through the heavens, registered to the imagination by the beautiful chord of his own divided rays.

CHAPTER VIII.

OF THE RELATION OF COLOR TO OUTLINE.

1. My dear reader,—If you have been obedient, and have hitherto done all that I have told you, I trust it has not been without much subdued remonstrance, and some serious vexation. For I should be sorry if, when you were led by the course of your study to observe closely such things as are beautiful in color, (feathers, and the like, not to say rocks and clouds,*) you had not longed to paint them, and felt considerable difficulty in complying with your restriction to the use of black, or blue, or gray. You *ought* to love color, and to think nothing quite beautiful or perfect without it; and if you really do love it, for its own sake, and are not merely desirous to color because you think painting a finer thing than drawing, there is some chance you may color well. Nevertheless, you need not hope ever to produce anything more than pleasant helps to memory, or useful and suggestive sketches in color, unless you mean to be wholly an artist. You may, in the time which other vocations leave at your disposal, produce finished, beautiful, and masterly drawings in light and shade. But to color well requires your life. It cannot be done cheaper. The difficulty of doing right is increased—and not twofold nor threefold, but a thousandfold, and more—by the addition of color to your work. For the chances are more than a thousand to one against your being right both in form and color with a given touch: it is difficult

* The first four paragraphs of this chapter, this connecting parenthesis excepted, are reprinted from the 'Elements of Drawing.' Read, however, carefully, the modifying notes.

enough to be right in form, if you attend to that only; but when you have to attend, at the same moment to a much more subtle thing than the form, the difficulty is strangely increased;—and multiplied almost to infinity by this great fact, that while form is absolute, so that you can say at the moment you draw any line that it is either right or wrong, color is (wholly) *relative*.* Every hue throughout your work is altered by every touch that you add in other places; so that what was warm † a minute ago, becomes cold when you have put a hotter color in another place; and what was in harmony when you left it, becomes discordant as you set other colors beside it: so that every touch must be laid, not with a view to its effect at the time, but its effect in futurity, the result upon it of all that is afterwards to be done being previously considered. You may easily understand that, this being so, nothing but the devotion of life, and great genius besides, can make a colorist.

2. But though you cannot produce finished colored drawings of any value, you may give yourself much pleasure, and be of great use to other people, by constantly sketching with a view to color only; and preserving distinct statements of certain color facts—as that the harvest-moon at rising was of such and such a red, and surrounded by clouds of such and such a rosy gray; that the mountains at evening were, in

* No, not 'wholly' by any means. This is one of the over-hasty statements which render it impossible for me to republish, without more correction than they are worth, the books I wrote before the year 1860. Color is no less positive than line, considered as a representation of fact; and you either match a given color, or do not, as you either draw a given ellipse or square, or do not. Nor, on the other hand, are lines, in their grouping, destitute of relative influence; they exalt or depress their individual powers by association; and the necessity for the correction of the above passage in this respect was pointed out to me by Miss Hill, many and many a year ago, when she was using the Elements in teaching design for glass. But the influence of lines on each other is restricted within narrow limits, while the sequences of color are like those of sound, and susceptible of all the complexity and passion of the most accomplished music.

† I assumed in the 'Elements of Drawing' the reader's acquaintance with this and other ordinary terms of art. But see § 30 of the last chapter.

truth, so deep in purple; and the waves by the boat's side were indeed of that incredible green. This only, observe, if you have an eye for color; but you may presume that you have this if you enjoy color.

3. And, though of course you should always give as much form to your subject as your attention to its color will admit of, remember that the whole value of what you are about, depends, in a colored sketch, on the color merely. If the color is wrong, everything is wrong: just as, if you are singing, and sing false notes, it does not matter how true the words are. If you sing at all, you must sing sweetly; and if you color at all, you must color rightly. Give up all the form, rather than the slightest part of the color: just as, if you felt yourself in danger of a false note, you would give up the word, and sing a meaningless sound, if you felt that so you could save the note. Never mind though your houses are all tumbling down,—though your clouds are mere blots, and your trees mere knobs, and your sun and moon like crooked sixpences,—so only that trees, clouds, houses, and sun or moon, are of the right colors.

4. Of course, the collateral discipline to which you are submitting—(if you are)—will soon enable you to hint something of form, even in the fastest sweep of the brush; but do not let the thought of form hamper you in the least, when you begin to make colored memoranda. If you want the form of the subject, draw it in black and white. If you want its color, take its color, and be sure you *have* it; and not a spurious, treacherous, half-measured piece of mutual concession, with the colors all wrong, and the forms still anything but right. It is best to get into the habit of considering the colored work merely as supplementary to your other studies; making your careful drawings of the subject first, and then a colored memorandum separately, as shapeless as you like, but faithful in hue, and entirely minding its own business. This principle, however, bears chiefly on large and distant subjects: in foregrounds, and near studies, the color cannot be got without a good deal of definition of form.

For if you do not shape the mosses on the stones accurately, you will not have the right quantity of color in each bit of moss pattern, and then none of the colors will look right; but it always simplifies the work much if you are clear as to your point of aim, and satisfied, when necessary, to fail of all but that.

5. Thus far I have repeated, with modification of two sentences only, the words of my old 'Elements of Drawing';—words which I could not change to any good purpose, so far as they are addressed to the modern amateur, whose mind has been relaxed, as in these days of licentious pursuit of pleasurable excitement, all our minds must be, more or less, to the point of not being able to endure the stress of wholesome and errorless labor,—(errorless, I mean, of course, only as far as care can prevent fault). But the Laws of Fésole address themselves to no persons of such temper; they are written only for students who have the fortitude to do their best; and I am not minded, any more, as will be seen in next chapter, while they have any store of round sixpences in their pockets, to allow them to draw their Sun, Earth, and Moon like crooked ones.

6. Yet the foregoing paragraphs are to be understood also in a nobler sense. They are right, and for evermore right, in their clear enunciation of the necessity of being true in color, as in music, note to note; and therefore also in their implied assertion of the existence of Color-Law, recognizable by all colorists, as harmony is by all musicians; and capable of being so unanimously ascertained by accurate obedience to it, that an ill-colored picture could be no more admitted into the gallery of any rightly constituted Academy, or Society of Painters, than a howling dog into a concert.

7. I say, observe, that Color-Law may be ascertained by accurate *obedience* to it; not by theories concerning it. No musical philosophy will ever teach a girl to sing, or a master to compose; and no color-philosophy will ever teach a man of science to enjoy a picture, or a dull painter to invent one. Nor is it prudent, in early practice, even to allow the mind

to be influenced by its preferences and fancies in color, however delicate. The first thing the student has to do, is to enable himself to match *any* color when he sees it; and the effort which he must make constantly, for many a day, is simply to match the color of natural objects as nearly as he can.

And since the mightiest masters in the world cannot match these *quite*, nor any *but* the mightiest match them, even nearly; the young student must be content, for many and many a day, to endure his own deficiencies with resolute patience, and lose no time in hopeless efforts to rival what is admirable in art, or copy what is inimitable in nature.

8. And especially, he must for a long time abstain from attaching too much importance to the beautiful mystery by which the blended colors of objects seen at some distance charm the eye inexplicably. The day before yesterday, as I was resting in the garden, the declining sunshine touched just the points of the withered snapdragons on its wall. They never had been anything very brilliant in the way of snapdragons, and were, when one looked at them close, only wasted and much pitiable ruins of snapdragons; but this Enid-like tenderness of their fading gray, mixed with what remnant of glow they could yet raise into the rosy sunbeams, made them, at a little distance, beautiful beyond all that pencil could ever follow. But you are not to concern yourself with such snapdragons yet, nor for a long while yet.

Attempt at first to color nothing but what is well within sight, and approximately copiable;—but take a *group* of objects always, not a single one; outline them with the utmost possible accuracy, with the lead; and then paint each of its own color, with such light and shade as you can see in it, and produce, in the first wash, as the light and shade is produced in Plate VI., never retouching. This law will compel you to look well what the color is, before you stain the paper with any: it will lead you, through that attention, daily into more precision of eye, and make all your experience gainful and definite.

9. Unless you are very sure that the shadow is indeed of some different color from the light, shade simply with a deeper, and if you already know what the word means, a warmer, tone of the color you are using. Darken, for instance, or with crocus, ruby with clarissa, heath with ruby; and, generally, any color whatever with the one next to it, between it and the jasper. And in all mixed colors, make the shade of them slightly more vivid in hue than the light, unless you assuredly see it in nature to be less so. But for a long time, do not trouble yourself much with these more subtle matters; and attend only to the three vital businesses;—approximate matching of the main color in the light,—perfect limitation of it by the outline, and flat, flawless, laying of it over all the space within.

10. For instance, I have opposite me, by chance, at this moment, a pale brown cane-bottomed chair, set against a pale greenish wall-paper. The front legs of the chair are round; the back ones, something between round and square; and the cross-bar of the back, flat in its own section, but bent into a curve.

To represent these roundings, squarings, and flattenings completely, with all the tints of brown and gray involved in them, would take a forenoon's work, to little profit. But to outline the entire chair with extreme precision, and then tint it with two well-chosen colors, one for the brown wood, the other for the yellow cane, completing it, part by part, with gradation such as could be commanded in the wet color; and then to lay the green of the wall behind, into the spaces left, fitting edge to edge without a flaw or an overlapping, would be progressive exercise of the best possible kind.

Again, on another chair beside me there is a heap of books, as the maid has chanced to leave them, lifting them off the table when she brought my breakfast. It is not by any means a pretty or picturesque group; but there are no railroad-stall bindings in it,—there are one or two of old vellum, and some sober browns and greens, and a bit of red; and, altogether, much more variety of color than anybody but an

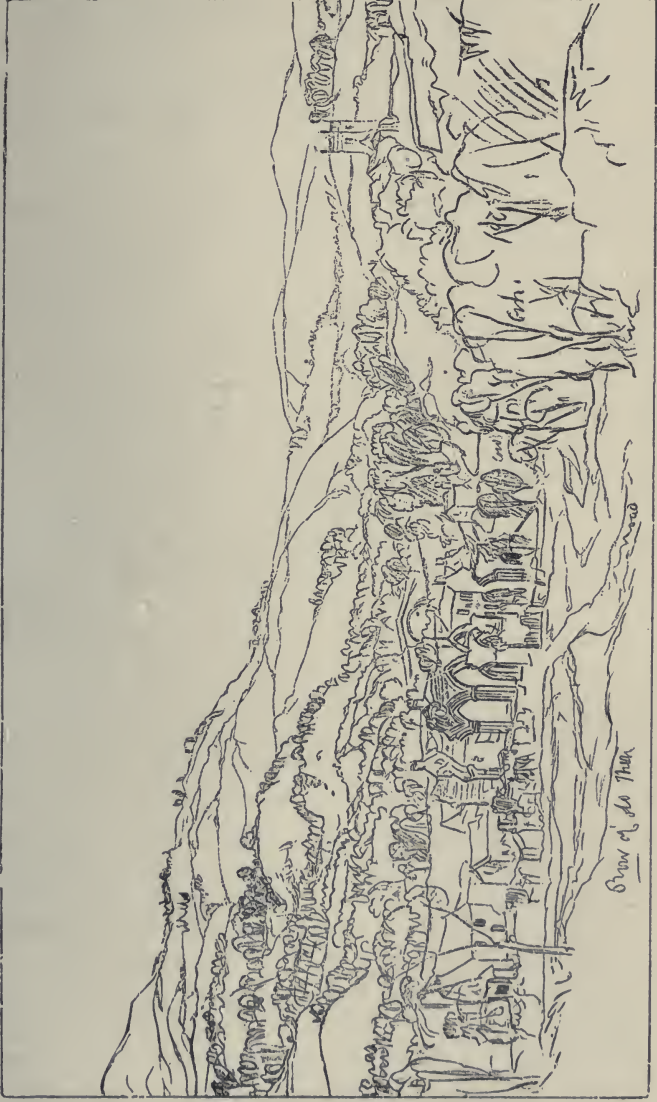
old Venetian could paint rightly. But if you see* any day such a pleasantly inconsiderate heap of old books, then outline them with perfect precision, and then paint each of its own color at once, to the best of your power, completely finishing that particular book, as far as you mean to finish it,† before you touch the white paper with the slightest tint of the next,—you will have gone much farther than at present you can fancy any idea, towards gaining the power of painting a Lombard tower, or a Savoyard precipice, in the right way also,—that is to say, joint by joint, and tier by tier.

11. One great advantage of such practice is in the necessity of getting the color quite even, that it may fit with precision, and yet without any hard line, to the piece next laid on. If there has been the least too much in the brush, it of course clogs and curdles at the edge, whereas it ought to be at the edge just what it is at the middle, and to end there, whatever its outline may be, as—Well, as you see it *does* end, if you look, in the thing you are painting. Hardness, so-called, and myriads of other nameless faults, all are traceable, ultimately, to mere want of power or attention in keeping tints quiet at their boundary.

12. Quiet—and therefore keen; for with this boundary of them, ultimately, you are to draw, and not with a black-lead outline; so that the power of the crags on the far-away mountain crest, and the beauty of the fairest saint that stoops from heaven, will depend, for true image of them, utterly on the last line that your pencil traces with the edge of its color, true as an arrow, and light as the air. In the meantime, trust me, everything depends on the lead outline's being clear and sufficient. After my own forty years' experience, I find nearly all difficulties resolve themselves at last in-

* You had better 'see' or find, than construct them;—else they will always have a constructed look, somehow.

† The drawing of the lines that show the edges of the leaves, or, in the last example, of the interlacing in the cane of the chair, is entirely a subsequent process, not here contemplated.



LANDSCAPE OUTLINE WITH THE LEAD.

Schools of St. George. Elementary Drawing. Plate VII.

to the want of more perfect outline: so that I say to myself—before any beautiful scene,—Alas, if only I had the outline of that, what a lovely thing I would make of it in an hour or two! But then the outline would take, for the sort of things I want to draw, not an hour, but a year, or two!

13. Yet you need not fear getting yourself into a like discomfort by taking my counsel. This sorrow of mine is because I want to paint Rouen Cathedral, or St. Mark's, or a whole German town with all the tiles on the roofs, that one might know against what kind of multitude Luther threw his defiance. If you will be moderate in your desires as to subject, you need not fear the oppressiveness of the method;—fear it, however, as you may, I tell you positively it is the only method by which you can ever force the Fates to grant you good success.

14. The opposite plate, VII., will give you an idea of the average quantity of lines which Turner used in any landscape sketch in his great middle time, whether he meant to color it or not. He made at least a hundred sketches of this kind for one that he touched with color: nor is it ever possible to distinguish any difference in manner between outlines (on white paper) intended for color, or only for notation: in every case, the outline is as perfect as his time admits; and, in his earlier days, if his leisure does not admit of its perfection, it is not touched with color at all. In later life, when, as he afterwards said of himself, in woeful repentance, “he wanted to draw *everything*,” both the lead outline and the color dash became slight enough,—but never inattentive; nor did the lead outline ever lose its governing proportion to all subsequent work.

15. And now, of this outline, you must observe three things. First, touching its subject; that the scene was worth drawing at all, only for its human interest; and that this charm of inhabitation was *always* first in Turner's mind. If he had only wanted what vulgar artists think picturesque, he might have found, in such an English valley as this, any quantity of old tree-trunks, of young tree-branches, of

lilied pools in the brook, and of grouped cattle in the meadows. For no such mere picture-material he cares; his time is given to seize and show the total history and character of the spot, and all that the people of England had made of it, and become in it. There is the ruined piece of thirteenth-century abbey; the rector's house beside it;* the gate-posts of the squire's avenue above; the steep fourteenth or fifteenth century bridge over the stream; the low-roofed, square-towered village church on the hill; two or three of the village houses and outhouses traced on the left, omitting, that these may be intelligible, the "row of old trees," which, nevertheless, as a part, and a principal part, of the landscape, are noted, by inscription, below; and will be assuredly there, if ever he takes up the subject for complete painting; as also the tall group of 'ash' on the right, of which he is content at present merely to indicate the place, and the lightness.

16. Do not carry this principle of looking for signs of human life or character, any more than you carry any other principle, to the point of affectation. Whatever pleases and satisfies you for the present, may be wisely drawn; but remember always that the beauty of any natural object is relative to the creatures it has to please; and that the pleasure of these is in proportion to their reverence, and their understanding. There can be no natural 'phenomena' without the beings to whom they are 'phenomenal,' (or, in plainer English, things cannot be apparent without some one to whom they may appear,) and the final definition of Beauty is, the power in anything of delighting an intelligent human soul by its appearance,—power given to it by the Maker of Souls. The perfect beauty of Man is summed in the Arabian exclamation, "Praise be to Him who created thee!" and the perfect beauty of all natural things summed in the Angel's promise, "Goodwill towards men."

17. In the second place, observe, in this outline, that no

* Compare, if by chance you come across the book, the analysis of the design of Turner's drawing of 'Heysham' in my old 'Elements of Drawing.'



PEN OUTLINE WITH ADVANCED SHADE.

Schools of St. George. Elementary Drawing. Plate VIII.

part of it is darker or lighter than any other, except in the moment of ceasing or disappearing. As the edge becomes less and less visible to the eye, Turner's pencil line fades, and vanishes where also the natural outline vanished. But he does not draw his ash trees in the foreground with a darker line than the woods in the distance.

This is a great and constant law. Whether your outline be gray or black, fine or coarse, it is to be *equal* everywhere. Always conventional, it is to be sustained throughout in the frankness of its conventionalism; it no more exists in nature as a visible line, at the edge of a rose leaf near, than of a ridge of hills far away. Never try to express more by it than the limitation of forms; it has nothing to do with their shadows, or their distances.

18. Lastly, observe of this Turner outline, there are some conditions of rapid grace in it, and others of constructive effect by the mere placing of broken lines in relative groups, which, in the first place, can be but poorly rendered even by the engraver's most painstaking facsimile; and, in the second, cannot be attained in practice but after many years spent in familiar use of the pencil. I have therefore given you this plate, not so much for an immediate model, as to show you the importance of outline even to a painter whose chief virtue and skill seemed, in his finished works, to consist in losing it. How little this was so in reality, you can only know by prolonged attention, not only to his drawings, but to the natural forms they represent.

19. For there were current universally during Turner's lifetime,* and there are still current very commonly, two

* I conclude the present chapter with the statement given in the catalogue I prepared to accompany the first exhibition of his works at Marlborough House, in the year 1857; because it illustrates some points in water-color work, respecting which the student's mind may advisably be set at rest before further procedure. I have also left the 17th paragraph without qualification, on account of its great importance; but the student must be careful in reading it to distinguish between true outline, and a linear basis for future shadow, as in Plate VIII., which I put here for immediate reference.

great errors concerning him; errors which not merely *lose sight* of the facts, but which are point-blank *contradictory* of the facts. It was thought that he painted chiefly from imagination, when his peculiar character, as distinguished from all other artists, was in always drawing from memories of seen fact. And it was commonly thought that he was great only in coloring, and could not draw; whereas his eminent distinction above other artists, so far as regards execution, was in his marvelous precision of *graphic* touch, disciplined by practice of engraving, and by lifelong work with the hard lead pencil-point on white paper.

20. Now there are many truths respecting art which cannot be rightly stated without involving an appearance of contradiction; and those truths are commonly the most important. There are, indeed, very few truths in any science which can be fully stated without such an expression of their opposite sides, as looks, to a person who has not grasp of the subject enough to take in both the sides at once, like contradiction. This law holds down even to very small minutiae in the physical sciences. For instance, a person ignorant of chemistry hearing it stated, perhaps consecutively, of hydrogen gas, that it was "in a high degree combustible," and "a non-supporter of combustion," would probably think the lecturer or writer was a fool; and when the statement thus made embraces wide fields of difficult investigation on both sides, its final terms invariably appear contradictory to a person who has but a narrow acquaintance with the matter in hand.

Thus, perhaps no two more apparently contradictory statements could be made in brief terms, than these,—

1. The perfections of drawing and coloring are inconsistent with one another.
2. The perfections of drawing and coloring are dependent upon one another.

And yet both these statements are true.

21. The first is true, because, in order that color may be right, some of the markings necessary to express perfect form must be omitted; and also because, in order that it may be

right, the intellect of the artist must be concentrated on that first, and must in some slight degree fail of the intensesness necessary to reach relative truth of form; and *vice versâ*.

The truth of the second proposition is much more commonly disputed. Observe, it is a twofold statement. The perfections of drawing and coloring are reciprocally dependent upon each other, so that

A. No person can draw perfectly who is not a colorist.

B. No person can color perfectly who is not a draughtsman.

22. A. No person can draw perfectly who is not a colorist. For the effect of contour in all surfaces is influenced in nature by gradations of color as much as by gradations of shade; so that if you have not a true eye for color, you will judge of the shades wrongly. Thus, if you cannot see the changes of hue in red, you cannot draw a cheek or lip rightly; and if you cannot see the changes of hue in green or blue, you cannot draw a wave. All studies of form made with a despiteful or ignorant neglect of color lead to exaggerations and misstatements of the form-markings; that is to say, to bad drawing.

23. B. No person can color perfectly who is not a draughtsman. For brilliancy of color depends, first of all, on gradation; and gradation, in its subtleties, cannot be given but by a good draughtsman. Brilliancy of color depends next on decision and rapidity in laying it on; and no person can lay it on decisively, and yet so as to fall into, or approximately fall into, the forms required, without being a thorough draughtsman. And it is always necessary that it should fall into a predeterminate form, not merely that it may represent the intended natural objects, but that it may itself take the shape, as a patch of color, which will fit it properly to the other patches of color round about it. If it touches them more or less than is right, its own color and theirs will both be spoiled.

Hence it follows that all very great colorists must be also very great draughtsmen. The possession of the Pisani

Veronese will happily enable the English public and the English artist to convince themselves how sincerity and simplicity in statements of fact, power of draughtsmanship, and joy in color, were associated in a perfect balance in the great workmen of Venice; while the series of Turner's studies which are now accessible in the same gallery will show them with what intensity of labor his power of draughtsmanship had to be maintained by the greatest colorist of the modern centuries.

24. One point only remains to be generally noticed,—that the command of means which Turner acquired by this perpetual practice, and the decision of purpose resulting from his vast power at once of memory and of design, enabled him nearly always to work straight forward upon his drawings, neither altering them, nor using any of the mechanical expedients for softening tints so frequently employed by inferior water-color painters. Many traditions indeed are afloat in the world of art respecting extraordinary processes through which he carried his work in its earlier stages; and I think it probable that, in some of his elaborately completed drawings, textures were prepared, by various mechanical means, over the general surface of the paper, before the drawing of detail was begun. Also, in the large drawings of early date, the usual expedients of sponging and taking out color by friction have often been employed by him; but it appears only experimentally, and that the final rejection of all such expedients was the result of their trial; for in all the rest of the national collection the evidence is as clear as it is copious that he went straight to his mark; in early days finishing piece by piece on the white paper; and as he advanced in skill, laying the main masses in broad tints, and working the details over these: never effacing or sponging, but taking every advantage of the wetness of the color, when first laid, to bring out soft lights with the point of the brush, or scratch out bright ones with the end of the stick, so driving the wet color in a dark line to the edge of the light,—a very favorite mode of execution with him, for three reasons: that it at once gave a dark edge, and therefore full relief, to the piece of

light; secondly, that it admitted of firm and angular drawing of forms; and, lastly, that as little color was removed from the whole mass, (the quantity taken from the light being only driven into the dark,) the quantity of hue in the mass itself, as broadly laid, in its first membership with other masses, was not much affected by the detailing process.

25. When these primary modifications of the wet color had been obtained, the drawing was proceeded with, exactly in the manner of William Hunt, of the old Watercolor Society, (if worked in transparent hues,) or of John Lewis, if in opaque,—that is to say, with clear, firm, and unalterable touches one over another, or one into the interstices of another; NEVER disturbing them by any general wash; using friction only where roughness of surface was locally required to produce effects of granulated stone, mossy ground, and such like; and rarely even taking out minute lights, but leaving them from the first, and working round and up to them;—very frequently drawing thin, dark outlines merely by putting a little more water into the wet touches, so as to drive the color to the edge as it dried; the only difference between his manipulation and William Hunt's being in his inconceivably varied and dexterous use of expedients of this kind,—such, for instance, as drawing the broken edge of a cloud merely by a modulated dash of the brush, defining the perfect forms with a quiver of his hand; rounding them by laying a little more color into one part of the dash before it dried, and laying the warm touches of the light *after* it had dried, outside of the edges. In many cases, the instantaneous manipulation is quite inexplicable.

26. It is quite possible, however, that, even in the most advanced stages of some of the finished drawings, they may have been damped, or even fairly put under water, and wetted through; nay, they may even have been exposed to strong currents of water, so as to remove superfluous color without defiling the tints anywhere; only most assuredly they never received any friction such as would confuse or destroy the edges and purity of separate tints. And all I can *assert*

is, that in the national collection there is no evidence of any such processes. In the plurality of the drawings the evidence is, on the contrary, absolute, that nothing of the kind has taken place; the greater number being executed on leaves of books, neither stretched nor moistened in any way whatever; or else on little bits of gray paper, often folded in four, and as often with the colored drawings made on *both* sides of a leaf. The coarser vignettes are painted on sheets of thin drawing-paper; the finer ones on smooth cardboard, of course without washing or disturbing the edges, of which the perfect purity is essential to the effect of the vignette.

27. I insist on this point at greater length, because, so far as the direct copying of Turner's drawings can be useful to the student, (working from nature with Turner's faithfulness being the *essential* part of his business,) it will be so chiefly as compelling him to a decisive and straightforward execution. I observe that in the former exhibition the students generally selected those drawings for study which could be approximately imitated by the erroneous processes of modern water color; and which were therefore exactly those that showed them least of Turner's mind, and taught them least of his methods.

The best practice, and the most rapid appreciation of Turner, will be obtained by accurately copying his sketches in body color on gray paper; and when once the method is understood, and the resolution made to hold by it, the student will soon find that the advantage gained is in more directions than one. For the sum of work which he can do will be as much greater in proportion to his decision, as it will be in each case better, and, after the first efforts, more easily done. He may have been appalled by the quantity which he sees that Turner accomplished; but he will be encouraged when he finds how much any one may accomplish who does not hesitate, nor repent. An artist's nerve and power of mind are lost chiefly in deciding what to do, and in effacing what he has done: it is anxiety, not labor, that fatigues him; and vacillation, not difficulty, that hinders him. And if the

student feels doubt respecting his own decision of mind, and questions the possibility of gaining the habit of it, let him be assured that in art, as in life, it depends mainly on simplicity of purpose. Turner's decision came chiefly of his truthfulness; it was because he meant always to be true, that he was able always to be bold. And you will find that you may gain his courage, if you will maintain his fidelity. If you want only to make your drawing fine, or attractive, you may hesitate indeed, long and often, to consider whether your faults will be forgiven, or your fineries perceived. But if you want to put fair fact into it, you will find the fact shape it fairly for you; and that in pictures, no less than in human life, they who have once made up their minds to do right, will have little place for hesitation, and little cause for repentance.

CHAPTER IX.

OF MAP DRAWING.

1. OF all the principles of Art which it has been my endeavor throughout life to inculcate, none are so important, and few so certain, as that which modern artists have chiefly denied,—that Art is only in her right place and office when she is subordinate to use; that her duty is always to teach, though to teach pleasantly; and that she is shamed, not exalted, when she has only graces to display, instead of truths to declare.

2. I do not know if the Art of Poetry has ever been really advanced by the exercise of youth in writing nonsense verses; but I know that the Art of Painting will never be so, by the practice of drawing nonsense lines; and that not only it is easy to make every moment of time spent in the elementary exercises of Art serviceable in other directions; but also it will be found that the exercises which are directed most clearly to the acquisition of general knowledge, will be swiftest in their discipline of manual skill, and most decisive in their effect on the formation of taste.

3. It will be seen, in the sequel of the Laws of Fésole, that every exercise in the book has the ulterior object of fixing in the student's mind some piece of accurate knowledge, either in geology, botany, or the natural history of animals. The laws which regulate the delineation of these, are still more stern in their application to the higher branches of the arts concerned with the history of the life, and symbolism of the thoughts, of Man; but the general student may more easily learn, and at first more profitably obey them, in their gentler authority over inferior subjects.

4. The beginning of all useful applications of the graphic

art is of course in the determination of clear and beautiful forms for letters; but this beginning has been invested by the illuminator with so many attractions, and permits so dangerous a liberty to the fancy, that I pass by it, at first, to the graver and stricter work of geography. For our most serviceable practice of which, some modifications appear to me desirable in existing modes of globe measurement: these I must explain in the outset, and request the student to familiarize himself with them completely before going farther.

5. On our ordinary globes the 360 degrees of the equator are divided into twenty-four equal spaces, representing the distance through which any point of the equator passes in an hour of the day: each space therefore consisting of fifteen degrees.

This division will be retained in St. George's schools; but it appears to me desirable to give the student a more clear and consistent notion of the length of a degree than he is likely to obtain under our present system of instruction. I find, for instance, in the Atlas published under the superintendence of the Society for the Diffusion of Useful Knowledge,* that, in England and Ireland, a degree contains 69.14 English miles; in Russia, 69.15; in Scotland, 69.1; in Italy, 69; in Turkey, 68.95; and in India, 68.8. In Black's more elaborate Atlas, the degree at the equator is given as 69.6, whether of longitude or latitude, with a delicate scale of diminution in the degrees of latitude to the pole, of which the first terms would quite fatally confuse themselves in a young student's mind with the wavering estimates given, as above quoted, in more elementary publications.

6. Under these circumstances, since in the form of the artificial globe we ignore the polar flatness of it, I shall also ignore it in practical measurement; and estimate the degrees of longitude at the equator, and of latitude everywhere, as always divided into Italian miles, one to the minute, sixty to

* The larger Atlas is without date: the selection of maps issued for the use of Harrow School in 1856 is not less liberal in its views respecting the length of a degree.

the degree. The entire circumference of the earth at the equator will thus be estimated at 21,600 miles; any place on the equator having diurnal motion at the rate of 900 miles an hour. The reduction, afterwards, of any required distance into English miles, or French kilometers, will be easy arithmetic.

7. The twenty-four meridians drawn on our common globes will be retained on St. George's; but numbered consecutively round the globe, 1 to 24, from west to east. The first meridian will be that through Fésole, and called Galileo's line; the second, that approximately through Troy,* called the Ida line. The sixth, through the eastern edge of India, will be called 'the Orient line;' the eighteenth, through the Isthmus of Vera Cruz, 'the Occident line;' and the twenty-fourth, passing nearly with precision, through our English Devonport, and over Dartmoor, 'the Devon line.' Its opposite meridian, the twelfth, through mid-Pacific, will be called the Captains' line.

8. The meridians on ordinary globes are divided into lengths of ten degrees, by eight circles drawn between the equator and each of the poles. But I think this numeration confusing to the student, by its inconsistency with the divisions of the equator, and its multiplication of lines parallel to the Arctic and Tropic circles. On our St. George's globes, therefore, the divisions of latitude will be, as those of longitude, each fifteen degrees, indicated by five circles drawn between each pole and the equator.

Calling the equator by its own name, the other circles will be numbered consecutively north and south; and called 1st, 2d, etc., to the 5th, which will be that nearest the Pole. The first north circle will be found to pass through the Cape-Verde island of St. Jago; the second north circle will be the line of latitude on our present globes passing approximately through Cairo; the third will as nearly run through

* Accurately, it passes through Tenedos, thus dividing the Ida of Zeus from the Ida of Poseidon in Samothrace. See 'Eothen,' Chapter IV.; and Dr. Schliemann's Troy, Plate IV.

Venice; the fourth, almost with precision, through Christiania; and the fifth through Cape Fern, in Nova Zembla. I wish my students to call these circles, severally, the St. James's circle, the Arabian circle, the Venetian circle, the Christian circle, and the Fern circle. On the southern hemisphere, I shall call the first circle St. John's; thus inclosing the most glowing space of the tropics between the lines named from the two Sons of Thunder; the Natal circle will divide intelligibly the eastern coast of Africa, and preserve the title of an entirely true and noble,—therefore necessarily much persecuted,—Christian Bishop; the St. George's circle, opposite the Venetian, will mark the mid-quadrant, reminding the student, also, that in far South America there is a Gulf of St. George; the Thulë circle will pass close south of the Southern Thulë; and the Blanche circle (*ligne Blanche*, for French children,) include, with Mounts Erebus and Terror, the supposed glacial space of the great Antarctic continent.

9. By this division of the meridians, the student, besides obtaining geographical tenure in symmetrical clearness, will be familiarized with the primary division of the circle by its radius into arcs of 60° ; and with the subdivisions of such arcs. And he will observe that if he draws his circle representing the world with a radius of two inches, (in Figure 18, that it may come within my type, it is only an inch and a half,) lettering the Equator QR , the North Pole P , the South Pole s , and the center of the circle, representing that of the Earth, o ; then completing the internal hexagon and dodecagon, and lettering the points through which the Arabian and Christian circles pass, respectively A and C , since the chord QC equals the radius QO , it will also measure two inches, and the arc upon it, QAC , somewhat more than two inches, so that the entire circle will be rather more than a foot round.

10. Now I want some enterprising mapseller * to prepare

* I cannot be answerable, at present, for what such enterprise may produce. I will see to it when I have finished my book, if I am spared to do so.

some school-globes, accurately of such dimension that the twenty-four-sided figure inclosed in their circle may be exactly half an inch in the side; and therefore the twenty-four meridians and eleven circles of latitude drawn on it with accurately horizontal intervals of half an inch between each of the meridians at the equator, and between the circles everywhere.

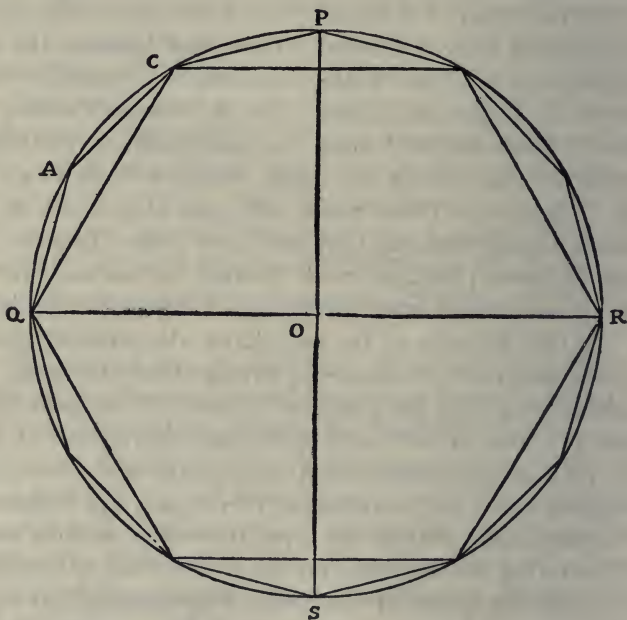


FIG. 18.

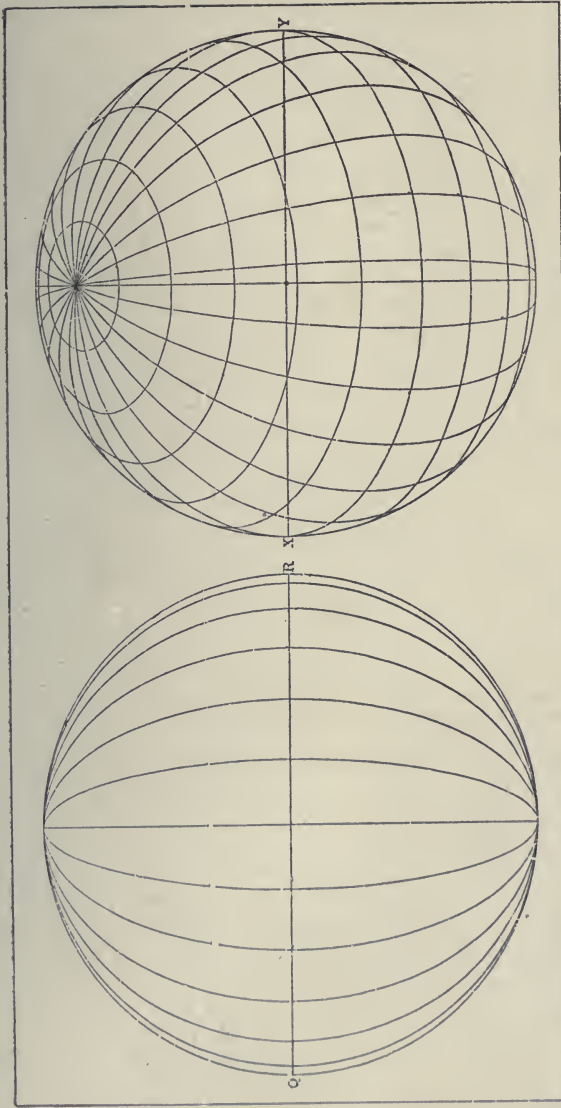
And, on this globe, I want the map of the world engraved in firm and simple outline, with the principal mountain chains; but no rivers,* and no names of any country; and this nameless chart of the world is to be colored, within the Arctic circles, the sea pale sapphire, and the land white; in

* My reason for this refusal is that I want children first to be made to *guess* the courses and sizes of rivers, from the formation of the land; and also, that nothing may disturb the eyes or thoughts in fastening on that formation.

these names being recognized always as belonging no less to the points in the arcs of the quadrant in any drawing, than to the globe circles; and thus rendering the specification of forms more easy. In such specification, however, the quadrant must always be conceived as a part of the complete circle; the lines oq and or are always to be called 'basic:' the letters qr , rp , qs , and rs , are always to be retained, each for their own arc of the quadrant; and the points of division in the arcs rp and rs distinguished from those in the arcs qp and qs by small, instead of capital, letters. Thus a triangle to be drawn with its base on St. George's circle, and its apex in the North Pole, will be asked for simply as the triangle gpq ; the hexagon with the long and short sides, cp , pr , may be placed at any of the points by describing it as the hexagon qac ,— jv , or the like; and ultimately the vertical triangles on the great divisional lines for bases will need no other definition than the letters bp , tp , cp , etc.

The lines ff , vv , etc., taken as the diameters of their respective circles, may be conveniently called, in any geometrical figure in which they occur, the Fern line, the Venetian line, etc.; and they are magnitudes which will be of great constructive importance to us, for it may be easily seen, by thickening the lines of the included squares, that the square on the Venetian line, the largest that can be included in the circle, is half the square on the equator; the square on the Christian line, the square of the radius, is again half of that on the Venetian; and the square on the Fern line, a fifth diminishing term between the square of the equator and zero.

12. Next, I wish my pupils each to draw for themselves the miniature hemisphere, Plate IX., Figure 1, with a radius of an inch and nine-tenths, which will give them approximately the twenty-four divisions of half an inch each. Then, verticals are to be let fall from the points J, A , etc., numbered, 1, 2, 3, 4, and 5, as in Figure 19, and then the meridians in red, with the pencil, by hand, through the points 1, 2, etc., of the figure; observing that each meridian must be an elliptical, not a circular, arc. And now we must return, for a



Engraved by G. J. Laro

Fig. 2.

Fig. 1.

Drawn by J. P. Wilson

PERSPECTIVE OF FIRST GEOMETRY.

Schools of St. George. Elementary Drawing. Plate IX.

moment, to the fifteenth paragraph of the fourth chapter, where we had to quit our elliptic practice for other compass work.

13. The ellipse, as the perspective of the circle, is so important a natural line that it is needful to be perfectly familiar with the look of it, and perfectly at ease in the tracing of it, before the student can attempt with success the slightest architectural or landscape outline. Usually, the drawing of the ellipse is left to gather itself gradually out of perspective studies; but thus under a disadvantage, seldom conquered, that the curve at the narrow extremity, which is the only important part of it, is always confused with the right line inclosing the cylinder or circle to be drawn; and never therefore swept with delicacy or facility. I wish the student, therefore, to conquer all hesitation in elliptic drawing at once, by humbly constructing ellipses, in sufficiently various number, large and small, with two pins' heads and a thread; and copying these with the lead, first, very carefully, then fastening the lead line with pencil and color.

This practice should be especially directed to the extremities of the narrow and long elliptic curves, as the beauty of some of the finest architecture depends on the perspective of this form in tiers of arches: while those of the shores of lakes, and bending of streams, though often passing into other and more subtle curves, will never be possible at all until the student is at ease in this first and elementary one.

14. Returning to our globe work, on the assumption that the pupil will prepare for it by this more irksome practice, it is to be noted that, for geographical purposes, we must so far conventionalize our perspective as to surrender the modifications produced by looking at the globe from near points of sight; and assume that the perspectives of the meridians are orthographic, as they would be if the globe were seen from an infinite distance; and become, practically, when it is removed to a moderate one. The real perspectives of the meridians, drawn on an orange six feet off, would be quite too subtle for any ordinary draughtsmanship; and there

would be no end to the intricacy of our map drawing if we were to attempt them, even on a larger scale. I assume, therefore, for our map work, that the globe may be represented, when the equator is level, with its eleven circles of latitude as horizontal lines; and the eleven visible meridians, as portions of five vertical ellipses, with a central vertical line between the poles.

15. When the student has completely mastered the drawing, and, if it may be so called, the literature, of this elementary construction, he must advance another, and a great step, by drawing the globe, thus divided, with its poles at any angle, and with any degree of longitude brought above the point o.

The placing the poles at an angle will at once throw all the circles of latitude into visible perspective, like the meridians, and enable us, when it may be desirable, to draw both these and the meridians as on a transparent globe, the arcs of them being traceable in completeness from one side of the equator to the other.

16. The second figure in Plate IX. represents the globe-lines placed so as to make Jerusalem the central point of its visible hemisphere.* A map thus drawn, whether it include the entire hemisphere or not, will in future be called 'Polar' to the place brought above the point o; and the maps which I wish my students to draw of separate countries will always be constructed so as to be polar to some approximately central point of chief importance in those countries; generally, if possible, to their highest or historically most important mountain;—otherwise, to their capital, or their oldest city, or the like. Thus the map of the British Islands will be polar to Scawfell Pikes, the highest rock in England: Switzerland will be polar to Monte Rosa, Italy to Rome, and Greece to Argos.

17. This transposition of the poles and meridians must be prepared for the young pupil, and for all unacquainted with the elements of mathematics, by the master: but the class

* The meridians in this figure are given from that of Fésolé, roughly taking the long. of Jerusalem 35 E., from Greenwich; and lat. 32 N.

of students for whom this book is chiefly written will be able, I think without difficulty, to understand and apply for themselves the following principles of construction:

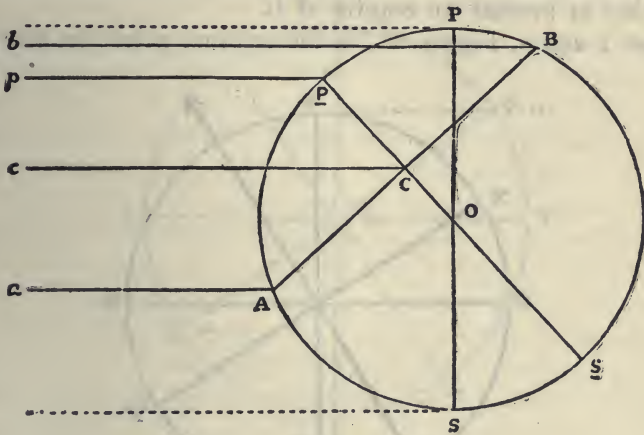


FIG. 20.

If P and s , Figure 20, be the poles of the globe in its normal position, the line of sight being in the direction of the dotted lines, tangential to the circle at P and s ; and if we then, while the line of sight remains unchanged, move the pole P to any point \underline{P} , and therefore (the center of the globe remaining fixed at O ,) the pole s to the opposite extremity of the diameter, \underline{s} ; and if AB be the diameter of any circle of latitude on the globe thus moved, such diameter being drawn between the highest and lowest points of that circle of latitude in its new position, it is evident that on the hemispherical surface of the globe commanded by the eye, the declined pole \underline{P} will be seen at the level of the line $p \underline{P}$; the levels $b B$, $a A$ will be the upper and lower limits of the perspective arc of the given circle of latitude; the center of that curve will be at the level $c c$; and its lateral diameter, however we change the inclination of its vertical one, will be constant.*

* Always remembering that the point of sight is at an infinite distance, else the magnitude of this diameter would be affected by the length of the interval $c O$.

18. On these data, the following construction of a map of the hemisphere to be made polar to a given place, will be, I think, intelligible,—or, at the very least, practicable; which is all that at present we require of it.

Let p and s , Figure 21, be the original poles; let the arc

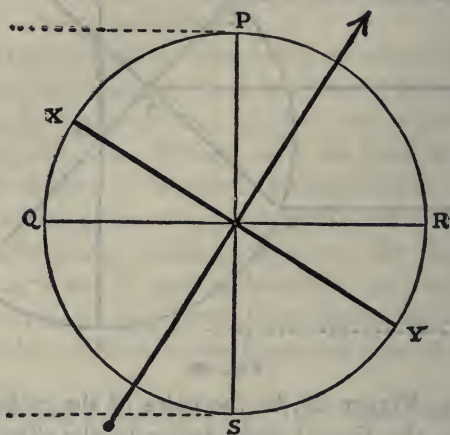


FIG. 21.

$p q s$ be the meridian of the place to which the map is to be made polar; and let x be the place itself. From x draw the diameter $x y$, which represents a circle to be called the 'equatorial line' of the given place; and which is of course inclined to the real equator at an angle measured by the latitude of the place.

Through the point o , (which I need not in future letter, it being in our figures always the mid-point between q and r , and, theoretically, the center of the earth,) draw the line terminated by the ball and arrow-point, perpendicular to $x y$. This is to be called the 'stellar line' of the given place x . In the map made polar to x , this line, if represented, will coincide with the meridian of x , but must not be confused with that meridian in the student's mind.

19. Place now the figure so as to bring the stellar line vertical, indicating it well by its arrowhead and ball, which

on locally polar maps will point north and south for the given place, Figure 22.

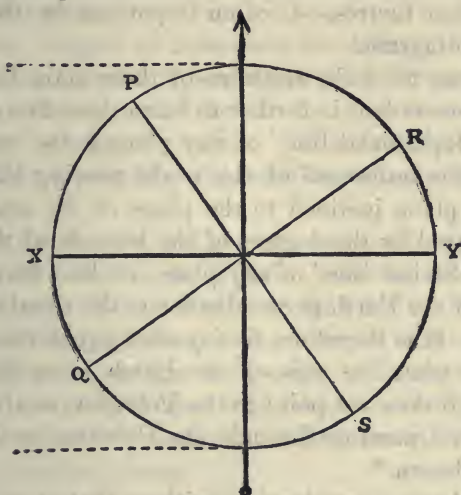


FIG. 22.

The equatorial line of x , ($x y$), now becomes horizontal. $q r$ is the real equator, p and s the real poles, and the given place to which the map is to be made polar is at x . The line of sight remains in the direction of the dotted lines.

20. As the student reads, let him construct and draw the figures himself carefully. There is not the smallest hurry about the business, (and there must be none in *any* business he means to be well done); all that we want is clear understanding, and fine drawing. And I multiply my figures, not merely to make myself understood, but as exercises in drawing to be successively copied. And the firm printing of the letters * is a part of this practice, taking the place of the more irksome exercise recommended in my first 'Elements of Drawing.' Be careful, also, that they shall be not only clear and neat, but perfectly upright. You will draw

* By a mistake of the engraver, the small letters, though all printed by myself in Roman form, have been changed, throughout the figures in this chapter, into italics. But in copying them, let them all be carefully printed in Roman type.

palaces and towers in truer stability after drawing letters uprightly; and the position of the letter,—as, for instance, in the two last figures,—is often important in the construction of the diagram.

21. Having fixed the relations of these main lines well in his mind, the student is farther to learn these two definitions.

I. The 'Equatorial line' of any place is the complete circle of the circumference of the world passing through that place, in a plane inclined to the plane of the equator at an angle measured by the degrees of the latitude of the place.

II. The 'Stellar line' of any place is a line drawn through the center of the Earth perpendicular to the equatorial line of that place. It is therefore, to any such equatorial line (geometrically) what the axis of the Earth is to the equator; and though it does not point to the Pole-star, is always in the vertical plane passing through the Pole-star and place for which it is drawn.*

22. It follows from these definitions that if we were able to look down on any place from a point vertically and exactly above it, and its equatorial and stellar lines were then visible to us, drawn, the one round the Earth, and the other through it, they would both appear as right lines, forming a cross, the equatorial line running, at the point of intersection, east and west; and the stellar, north and south.

23. Now all the maps which I hope to prepare for St. George's schools will be constructed, not by circles of latitude and meridians, but as squares of ten, twenty, or thirty degrees in the side, quartered into four minor squares of five, ten, or fifteen degrees in the side, by the cross formed by the equatorial and stellar line of the place to which the map is said to be 'polar;'—which place will therefore be at the center of the square. And since the arc of a degree on the equatorial line is as long as the arc of a degree on the equator, and since the stellar line of a place on a polar map coincides with the meridian of that place, the measurements of distance

* The Pole-star is assumed, throughout all our work, to indicate the true North.

along each of the four arms of the cross will be similar, and the enlargements of terrestrial distance expressed by them, in equal proportions.

24. I am obliged to introduce the terms "at the point of intersection," in § 22, because, beyond the exact point of intersection, the equatorial line does not run east and west, in the ordinary geographical sense. Note therefore the following conditions separating this from the usually drawn terrestrial lines.

If, from the eastern and western gates of a city, two travelers set forth to walk, one due east, and the other due west, they would meet face to face after they had walked each the semicircle of the earth-line in their city's latitude.

But if from the eastern and western gates they set forth to walk along their city's equatorial line, they would only meet face to face after they had each walked the full semicircle of the Earth's circumference.

And if, from the eastern and western gates of their city, they were *able* to set forth, to walk along the lines used as lines of measurement on its polar map, they would meet no more forever.

For these lines, though coinciding, the one with its meridian, and the other with its equatorial line, are conceived always as lines drawn in the air, so as to touch the Earth only at the place itself, as the threads of a common squaring frame would touch the surface of a globe; that which coincides with the Stellar line being produced infinitely in the vertical plane of the Pole-star, and that which coincides with the equatorial line produced infinitely at right angles to it in the direction of the minor axis of the Earth's orbit.

25. In which orbit, calling the point of winter solstice, being that nearest the Pole-star, the North point of the orbit, and that of the summer solstice South, the point of vernal equinox will be West, the point of autumnal equinox East; and the polar map of any place will be in general constructed and shaded with the Earth in vernal equinox, and the place at the time of sunrise to it on Easter Day, supposing the sun

ten degrees above the horizon, and expressing therefore the heights of the mountain chains accurately by the length of their shadows.

26. Therefore, in now proceeding to draw our polar map for the given place x , Figure 22, we have to bring the two poles, and the place itself, to the meridian which coincides, in our circular construction, with the stellar line. Accordingly, having got our construction as in Figure 22, we let fall perpendiculars on the stellar line from all the four points

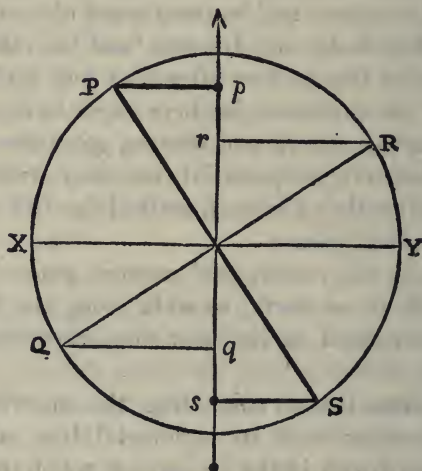


FIG. 23.

P , s , q , and R , Figure 23, giving us the four points on the stellar line p , s , q , and r .

Then, in our polar map, p and s are the new poles corresponding to P and s ; q and r the new points of the Equator corresponding to q and r ; and the place to which the map is polar, x , will now be in the center of the map at the point usually lettered o .

27. Now this construction is entirely general, and the two zigzags, $p P s s$ and $r R q q$, must always be drawn in the same way for the poles and any given circle of latitude, as well as for the Equator;—only if the more lightly-drawn zigzag be for a north or south circle of latitude, it will not be sym-

metrical on both sides of the line $x y$. Therefore, removing the (for the moment unnecessary) line $x y$ from the construction, and drawing, instead of the Equator $q r$, any circle of latitude $l m$,— l and m are the corresponding points of that circle in our polar map, and we get the entirely general construction, Figure 24, in which the place to which the map

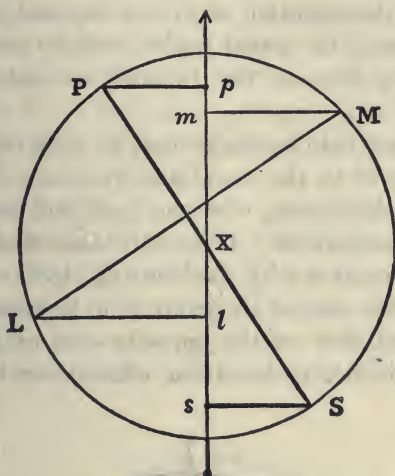


FIG. 24.

is polar, being now at the center of the circle, is lettered x , because it is not now the center of the earth between q and r , but the point x , on the surface of the earth, brought round to coincide with it.

28. And now I should like the student to fix the letters attached to these constructions in his mind, as belonging, not only to their respective circles, but always to the same points in these circles. Thus the letter x will henceforward, after we have once finished the explanatory construction in the present chapter, always signify the point to which the map is polar, and y its exactly antipodal point on the earth's surface, half round the equatorial line. If we have to speak in more detail of the equatorial line as a complete circle, it will be lettered x, e, y, w , the letters e and w being at its

extreme eastern and western points, in relation to x . And since at these points it intersects the Equator, the Equator will be also lettered q, e, r, w , the points e and w being identical in both circles, and the point q always in the meridian of x . Any circle of latitude other than the stated eleven will be lettered at its quarters, $L, L 1, L 2, L 3, L 4$, the point L being that on the meridian of x ; and any full meridian circle other than one of the stated twelve, will be lettered $M N$, the point M being that on the Equator nearest x , and N its opposite.

29. And now note carefully that in drawing the globe, or any large part of it, the meridian circles and latitude circles are always to be drawn, with the lead, full round, as if the globe were transparent. It is only thus that the truth of their delicate contact with the limiting circle can be reached. Then the visible part of the curve is to be traced with pencil and color, and that on the opposite side of the globe, and therefore invisible, to be either effaced, or indicated by a dotted line.

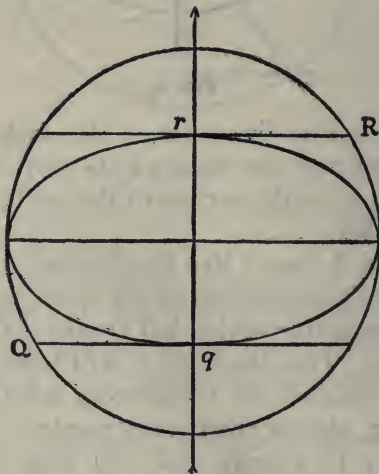


FIG. 25.

Thus, in Figure 25, I complete the construction from

Figure 23 by first producing the lines $R r$, $Q q$, to meet the circle on both sides, so as to give me a complete feeling of the symmetry of the entire space within which my elliptic curve must be drawn; and then draw it round in complete sweep, as steadily as I can, correcting it into a true ellipse by as much measurement as may be needful, and with the best fastidiousness of my sight. Once the perfect ellipse drawn, the question, which half of it is visible, depends on whether we intend the North or South pole to be visible. If the North, the lower half of the ellipse is the perspective of the visible half of the Equator; and if the South, vice versâ, the upper half of the ellipse.

30. But the drawing becomes more difficult and subtle when we deal with the perspective of a line of latitude, as $I. M$, (Figure 24). For on completing this construction in the same manner as Figure 23 is completed in Figure 25, we shall find the ellipse does not now touch the circle with its extremities, but with some part of its sides. In Figure

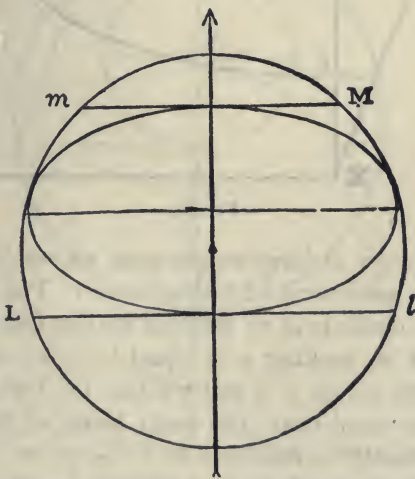


FIG. 26

26, I remove the constructing lines from Figure 24, and give only the necessary limiting ones, $M m$ and $L l$, produced: the

ellipse being now drawn symmetrically between these, so as to touch the circle, it will be seen that its major axis falls beneath the point of contact, and would have to be carried beyond the ellipse if it were to meet the circle. On the small scale of these figures, and in drawing large circles of latitude, the interval seems of little importance; yet on the beautiful drawing of it depends the right expression of all rounded things whose surface is traversed by lines—from St. Peter's dome to an acorn cup. In Figure 27 I give the segment of

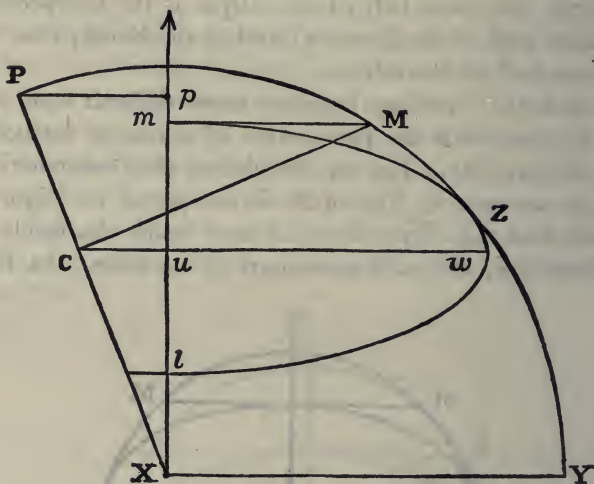


FIG. 27.

circle from p to y as large as my page allows, with the semi-ellipse of the semicircle of latitude $c m$. The point of contact with the circle is at z ; the axis major, drawn through c , terminates at w , making $u w$ equal to $c m$; and the pretty meeting of the curves $w z$ and $y z$ like the top of the rudder of a Venetian canal boat (the water being at the level $x y$), becomes distinctly visible.

The semi-major axis $u w$ is exactly equal to $c m$, as in Figure 25 the entire major axis is equal to $l m$ in Figure 24.

31. Lastly, if $c m$ cross the stellar line, as in all figures hitherto given, the ellipse always touches the circle, and the

portion of it beyond z is invisible, on the other side of the globe, when we reduce the perspective figure to a drawing. But, as we draw the circles of latitude smaller, the interval between z and w increases, and that between z and m diminishes, until z and m coincide on the stellar line, and the ellipse touches the circle with the extremity of its minor axis. As m draws still farther back towards p , the ellipse detaches itself from the circle, and becomes entirely visible; and as we incline the pole more and more towards us, the ellipses rise gradually into sight, become rounder and rounder in their curves, and at last pass into five concentric circles encompassed by the Equator as we look vertically down on the pole. The construction of the small circle of latitude LM , when the pole is depressed to p , is given in Figure 28.

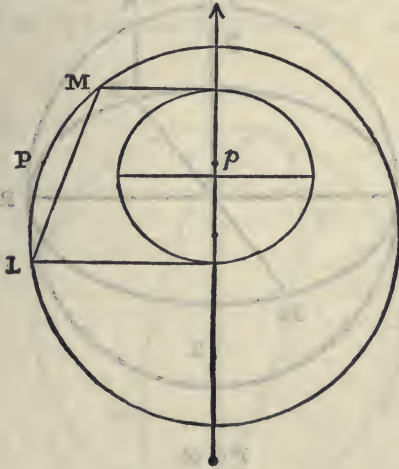


FIG. 28.

32. All this sounds at first extremely dreadful: but, supposing the system of the Laws of Fésolé generally approved and adopted, every parish school may soon be furnished with accurate and beautiful drawings of the divided sphere in various positions; and the scholars led on gradually in the

practice of copying them, having always, for comparison, the solid and engraved artificial globe in their hands. Once intelligently masters of this Earth-perspective, there remain no more difficulties for them, but those of delicate execution, in the drawing of plates, or cups, or baskets, or crowns,* or any other more or less circularly divided objects; and gradually they will perceive concurrences and cadences of mightier lines in sea waves, and mountain promontories, and arcs of breeze-driven cloud.

33. One bit of hard work more, and we have done with geometry for the present. We have yet to learn how to draw any meridian in true perspective, the poles being given in a vertical line. Let p and s , Figure 29, be the poles,

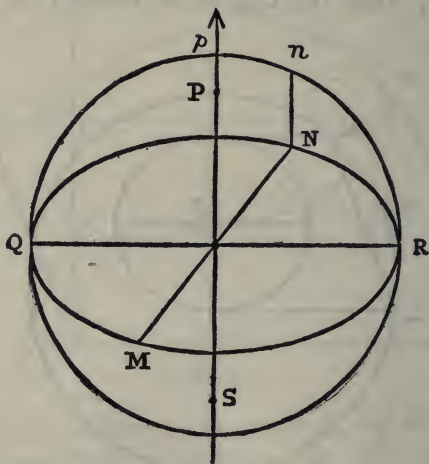


FIG. 29.

* There are, of course, other perspective laws, dependent on the approach of the point of sight, introduced in the drawing of ordinary objects; but none of these laws are ever mathematically carried out by artists, nor can they be: everything depends on the truth of their eyes and ready obedience of their fingers. All the mathematicians in France and England, with any quantity of time and every instrument in their possession, could not draw a tress of wreathed hair in perspective: but Veronese will do it, to practical sufficiency, with half a dozen consecutive touches of his pencil.

P being the visible one. Then $Q M R N$ is the Equator in its perspective relation to them; p , the pole of the stellar line, which line is here coincident with the meridian of the place to which the map is polar. It is required to draw another meridian at a given number of degrees distant from the meridian of the place.

34. On the arc $p q$, if the required meridian is to the east of the place, or on the arc $p R$, if the required meridian is to the west of it, measure an arc of the given number of degrees, $p n$. Let fall the vertical $n N$ on the Equator, draw the diagonal $M N$ through o ; and the required meridian will be the visible arc of the ellipse drawn, so as to touch the circle, through the four points $P N S M$. These four points, however placed, will always be symmetrical, the triangles $o P N$ and $o M S$, if completed, being always equal and similar, and the points N and M equidistant from P and s . In Figure 30, I

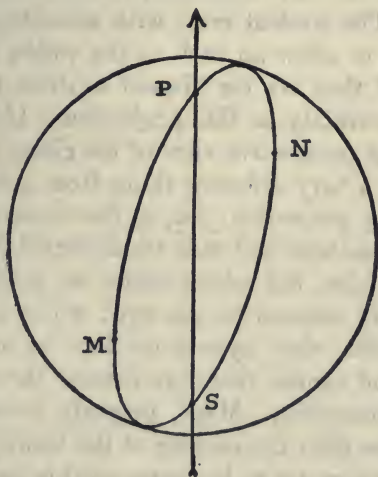


FIG. 30.

draw the curve, showing only these points and the stellar line; and you may, by a little effort, imagine the figure to represent two cups, or two kettle-drums, brim to brim, or rim to rim.

range from the Simplon, in general the most disappointing—for two reasons: the first, that the green mass of their foundation slopes so softly to the valley that it takes away half the look of their height; and the second, that the greater peaks are confused among the crags immediately above the Aletsch glacier, and cannot, in quite clear weather, be recognized as more distant, or more vast. But at this moment, both these disadvantages were totally conquered. The whole valley was full of absolutely impenetrable wreathed cloud, nearly all pure white, only the palest gray rounding the changeful domes of it; and beyond these domes of heavenly marble, the great Alps stood up against the blue,—not wholly clear, but clasped and entwined with translucent folds of mist, traceable, but no more traceable, than the thinnest veil drawn over St. Catherine's or the Virgin's hair by Lippi or Luini; and rising as they were withdrawn from such investiture, into faint oriflammes, as if borne by an angel host far distant; the peaks themselves strewn with strange light, by snow fallen but that moment,—the glory shed upon them as the veil fled;—and intermittent waves of still gaining seas of light increasing upon them, as if on the first day of creation.

“À présent, vous pouvez voir l'hôtel sur le Bell Alp, bâti par Monsieur Tyndall.”

The voice was the voice of the driver of the supplementary pair of horses from Brieg, who, just dismissed by Bernardo, had been for some minutes considering how he could best recommend himself to me for an extra franc.

I not instantly appearing favorably stirred by this information, he went on with increased emphasis, “Monsieur le *Professeur* Tyndall.”

The poor fellow lost his *bonnemain* by it altogether—not out of any deliberate spite of mine; but because, at this second interruption, I looked at him, with an expression (as I suppose) so little calculated to encourage his hopes of my generosity that he gave the matter up in a moment, and turned away, with his horses, down the hill;—I partly not

caring to be further disturbed, and being besides too slow—as I always am in cases where presence of mind is needful—in calling him back again.

11. For, indeed, the confusion into which he had thrown my thoughts was all the more perfect and diabolic, because it consisted mainly in the stirring up of every particle of personal vanity and mean spirit of contention which could be concentrated in one blot of pure black ink, to be dropped into the midst of my aerial vision.

Finding it totally impossible to look at the Alps any more, for the moment, I got out of the carriage, sent it on to the Simplon village; and began climbing, to recover my feelings and wits, among the mossy knolls above the convent.

They were drenched with the just past rain; glittering now in perfect sunshine, and themselves enriched by autumn into wreaths of responding gold.

The vast hospice stood desolate in the hollow behind them; the first time I had ever passed it with no welcome from either monk, or dog. Blank as the fields of snow above, stood now the useless walls; and for the first time, unredeemed by association; only the thin iron cross in the center of the roof remaining to say that this had once been a house of Christian Hospitallers.

12. Desolate this, and dead the office of this,—for the present, it seems; and across the valley, instead, "l'hôtel sur le Bell Alp, bâti par Monsieur Tyndall," no nest of dreamy monks, but of philosophically peripatetic or perisaltatory 'puces des glaces.'

For, on the whole, that is indeed the dramatic aspect and relation of them to the glaciers; little jumping black things, who appear, under the photographic microscope, active on the ice-waves, or even inside of them;—giving to most of the great views of the Alps, in the windows at Geneva, a more or less animatedly punctuate and pulicarious character.

Such their dramatic and picturesque function, to anyone with clear eyes; their intellectual function, however, being more important, and comparable rather to a symmetrical

CHAPTER X.

OF LIGHT AND SHADE.

1. I DO not doubt that you can call into your mind with some distinctness the image of hawthorn blossom;—whether, at this time of reading, it be May or November, I should like you, if possible, to look at the description of it in *Proserpina* (Volume III.); but you can certainly remember the general look of it, in white masses among green leaves. And you would never think, if I put a pencil into your hand, and gave you choice of colors to paint it with, of painting any part of it *black*.

Your first natural instinct would be to take pure green, and lay that for the leaves; and then, the brightest white which you could find on the palette, and put that on in bosses for the buds and blossoms.

2. And although immediate success in representation of hawthorn might possibly not attend these efforts, that first instinctive process would be perfectly right in principle. The general effect of hawthorn is assuredly of masses of white, laid among masses of green: and if, at the instigation of any learned drawing-master, you were to paint part of every cluster of blossoms coal-black, you would never be able to make the finished work satisfactory either to yourself, or to other simple people, as long as the black blot remained there.

3. You may perhaps think it unlikely that any drawing-master would recommend you to paint hawthorn blossom half black. Nor, if instead of hawthorn, you had peach or apple blossom to paint, would you expect such recommenda-

tion for the better rendering of their rose-color? Nor, if you had a gentian to paint, though its blue is dark, would you expect to be told to paint half the petals black?

If, then, you have human flesh to paint, which, though of much mingled and varied hue, is not, unless sunburnt, darker than peach blossom;—and of which the ideal, according to all poets, is that it should be white, tinted with rose;—which also, in perfect health and purity, is somewhat translucent, certainly much more so than either hawthorn buds or apple blossom,—Would you accept it as a wise first direction towards the rendering of this more living and varying color, to paint one side of a girl's face black? You certainly would not, unless you had been previously beguiled into thinking it grand or artistic to paint things under 'bold effects.'

And yet, you probably have been beguiled, before now, into admiring Raphael's Transfiguration, in which everybody's faces and limbs are half black; and into supposing Rembrandt a master of chiaroscuro, because he can paint a vigorous portrait with a black dab under the nose!

4. Both Raphael and Rembrandt *are* masters indeed; but neither of them masters of light and shade, in treatment of which the first is always false, and the second always vulgar. The only absolute masters of light and shade are those who never make you *think* of light and shade, more than Nature herself does.

It will be twenty years, however, at least, before you can so much as *see* the finer conditions of shadow in masters of that caliber. In the meantime, so please you, we will go back to our hawthorn blossom, which you have begun quite rightly by painting white altogether; but which remains, nevertheless, incomplete on those conditions. However, if its outline be right, and it detaches itself from the green ground like a Florentine piece of mosaic, with absolutely true contour of clustered petal, and placing of scattered bud, you are already a far way on the road to all you want of it.

5. What more you *exactly* want is now the question. If

the image of the flower is clear in your mind, you will see it to be made up of buds, which are white balls, like pearls; and flowers, like little flattish cups, or rather saucers, each composed of five hollow petals.

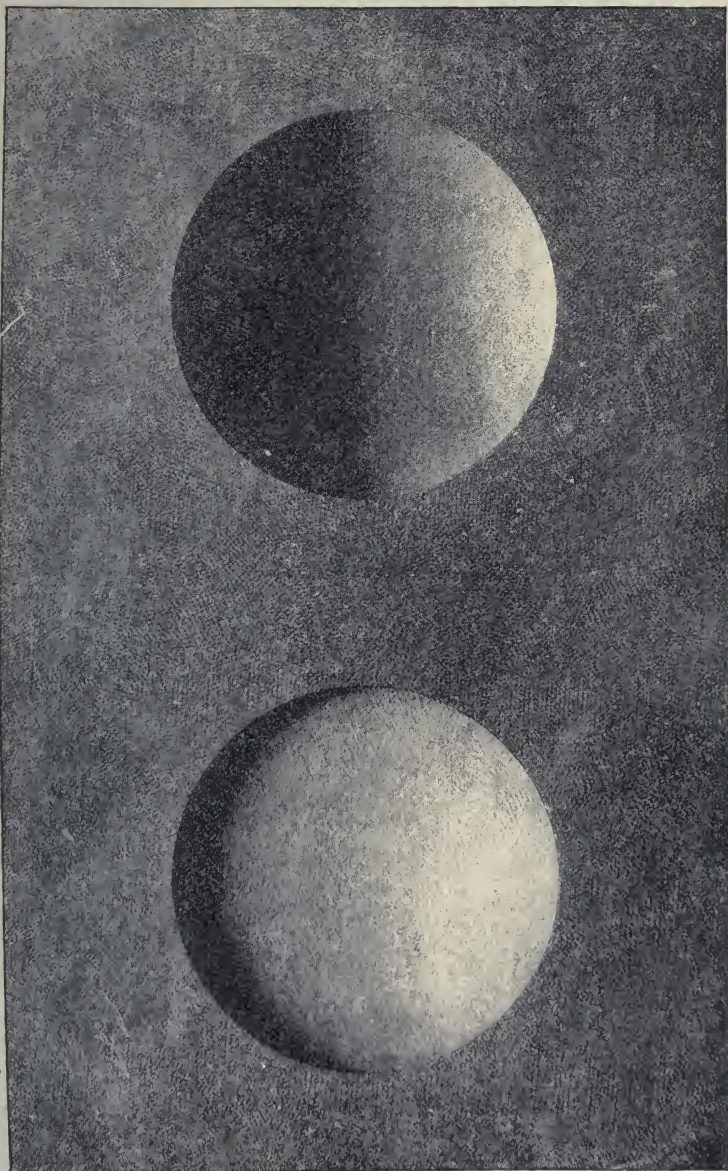
How do you know, by the look of them, that the balls are convex, and the cups concave? How do you know, farther, that the balls are not *quite round* balls, but a little flat at the top? How do you know that the cups are not deep, but, as I said, flattish, like saucers?

You know, because a certain quantity of very delicate pale gray is so diffused over the white as to define to the eye exactly the degree in which its surfaces are bent; and the gradations of this gray are determined by the form of surface, just as accurately as the outline is; and change with the same mathematical precision, at every point of their course. So that, supposing the bud were spherical, which it is not, the gradation of shade would show that it was spherical; and, flattened ever so little though it be, the shade becomes different in that degree, and is recognized by the eye as the shade of a hawthorn blossom, and not of a mere round globule or bead.

6. But, for globule, globe, or grain, small or great,—as the first laws of line may best be learned in the lines of the Earth, so also the first laws of light may best be learned in the light of the Earth. Not the hawthorn blossom, nor the pearl, nor the grain of mustard or manna,—not the smallest round thing that lies as the hoar-frost on the ground,—but around it, and upon it, are illuminated the laws that bade the Evening and the Morning be the first day.

7. So much of those laws you probably, in this learned century, know already, as that the heat and light of the sun are both in a fixed proportion to the steepness of his rays,—that they decline as the day, and as the summer declines; passing softly into the shadows of the Polar,—swiftly into those of the Tropic night.

But you probably have never enough fastened in your minds the fact that, whatever the position of the sun, and whatever the rate of motion of any point on the earth through



APPELLAVITQUE LUCEM DIEM ET TENEBRAS NOCTERN.

Schools of St. George. Elementary Drawing. Plate X.

the minutes, hours, or days of twilight, the meeting of the margins of night and day is always constant in the breadth of its zone of gradually expiring light; and that in relation to the whole mass of the globe, that passage from 'glow to gloom' is as trenchant and swift as between the crescent of the new moon and the dimness of the "Auld mune in her airms."

8. The *dimness*, I say, observe;—not the blackness. Against the depth of the night—itsself (as we see it) not absolute blackness,—the obscured space of the lunar ball still is relieved in pallor, lighted to that dim degree by the reflection from the Earth. Much more, in all the forms which you will have to study in daylight, the dark side is relieved or effaced, by variously diffused and reflected rays. But the first thing you have to learn and remember, respecting all objects whatever to be drawn in light and shade, is that, by natural light of day, half of them is in light, and half in shadow; and the beginning of all light and shade drawing is in the true, stern, and perfect separation of these from each other.

9. Where you stand, and therefore whence you see the object to be drawn, is a quite separate matter of inquiry. As you choose, you may determine how much you will see of its dark and how much of its light side: but the first thing to be made sure of is the positive extent of these two great masses: and the mode in which they are involved or invaded at their edges.

And in determining this at first, you are to cast entirely out of consideration all vestige or interference of modifying reflective light. The arts, and the morality of men, are founded on the same primal order; you are not to ask, in morals, what is less right and more, or less wrong and more, until in every matter you have learned to recognize what is massively and totally Right, from what is massively and totally Wrong. The beautiful enhancements of passion in virtue, and the subtle redemptions of repentance in sin, are only to be sought, or taken account of, afterwards. And as the strength and facility of human action are undermined alike by the ardor of pride and the cunning of exculpation, the work of the

feeblest artist may be known by the vulgar glittering of its light, and the far-sought reflection in its shadow.

10. When the great separation between light and dark has been thus determined, the entire attention of the student is to be first put on the gradation of the *luminous* surface.

It is only on that surface that the form of the object is exactly or consistently shown; and the just distribution of the light, on that alone, will be enough to characterize the subject, even if the shadow be left wholly untouched. The most perfectly disciplined and scientific drawings of the Tuscan school consist of pure outlines on tinted paper, with the lights laid on in gradated white, and the darks left undistinguished from the ground. The group of drawings by Turner to which, in the schools of Oxford, I have given the title of the 'Nine Muses,' consists, in like manner, of firm pencil outline on pale gray paper; the expression of form being entirely trusted to lights gradated with the most subtle care.

11. But in elementary work, the definition of the dark side of the object against the background is to be insisted upon, no less than the rising of the light side of the object out of shadow. For, by this law, accuracy in the outline on both sides will be required, and every tendency to mystification repressed; whereas, if once we allow dark backgrounds to set off luminous masses, the errors of the outline in the shadow may be concealed by a little graceful manipulation; and the drawing made to bear so much resemblance in manner to a master's work, that the student is only too likely to flatter himself, and be praised by others, for what is merely the dissimulation of weakness, or the disguise of error.

12. Farther: it is of extreme importance that no time should be lost by the beginner in imitating the *qualities* of shade attained by great masters, before he has learned where shadow of *any* quality is to be disposed, or in what proportion it is to be laid. Yet more, it is essential that his eye should not be satisfied, nor his work facilitated, by the more or less pleasant qualities of shade in chalk or charcoal: he

should be at once compelled to practice in the media with which he must ultimately produce the true effects of light and shade in the noblest painting,—media admitting no tricks of texture, luster, or transparency. Even sepia is open to some temptation of this kind, and is to be therefore reserved for the days when the young workman may pretend to copy Turner or Holbein. For the beginner, pure and plain lampblack is the safest, as the most sincere, of materials.

It has the farther advantage of being extremely difficult to manage in a wash; so that, practicing first in this medium, you will have no difficulty with more tractable colors.

13. In order not to waste paper, color, nor time, you must be deliberate and neat in all proceedings: and above all, you must have good paper and good pencils. Three of properly varied size are supplied in your box; to these you must add a commoner one of the size of the largest, which you are to keep separate, merely for mixing and supplying color.

Take a piece of thick and smooth paper; and outline on it accurately a space ten inches high by five wide, and, cutting it off so as to leave some half inch of margin all round, arrange it, the narrow side up, on a book or desk sloping at an angle of not less, nor much more, than 25° .

Put two small teacup-saucers; and your two pencils—one for supply, and one to draw with; a glass of water, your ivory palette-knife, and a teaspoon, comfortably beside you, and don't have anything else on the table.

Being forced to content ourselves, for the present, with tube colors, I must ask you to be very careful and neat in their use. The aperture, in tubes of the size you are supplied with, is about the eighth of an inch wide, and with the slightest pressure (to be applied, remember, always at the *bottom* of the tube, not the sides), you will push out a little boss or round tower of color, which ought not to be more than the eighth of an inch, or its own width, above the top of the tube. Do not rub this on the saucer, but take it neatly off with the edge of your knife, and so put it in the saucer; and screw

the top of your tube nicely on again, and put it back in its place.

Now put two teaspoonfuls of water into one saucer, and stir the color well into it with your supply pencil. Then put the same quantity of pure water into the other saucer, and you are ready to begin.

14. Take first a pencilful of quite pure water, and lead it along the top of your five-inch space, leaving a little ridge of water all the way. Then, from your supply saucer, put a pencilful of the mixed color into the pure water; stir that up well with your pencil, and lead the ridge of pure water down with that delicatest tint, about half an inch, leaving another ridge all along. Then another pencilful from the supply saucer into the other, mixed always thoroughly, for the next half inch. Do not put the supply pencil into the diluted tint, but empty it by pressing on the side of the saucer, so that you may not dilute the supply tint, which you are to keep, through the course of each wash, quite evenly mixed. With twenty, or one or two less than twenty, replenishings, and therefore darkenings, of the tint you are painting with, you will reach the bottom of the ten-inch space; which ought then already to present a quite visible gradation from white to a very pale gray.

15. Leaving this to dry thoroughly, pour the diluted tint you have been painting with away; wash out the saucer; put in another supply of clear water; and you are ready to lay the second coat. The process being entirely mechanical, you can read, or do anything else you like, while the successive coats are drying; and each will take longer than the last. But don't go on with other drawings, unless indeed you like to tint two pieces of paper at once, and so waste less color—using the diluted tint of the first for the supply tint of the second, and so gaining a still more delicate gradation. And whether you do this or not, at every third coat pour the diluted tint back into the supply one, which will else be too soon exhausted. By the time you have laid on ten or twelve tints, you will begin to see such faults and unevenness as may at first be inevi-

table; but also you will begin to feel what is meant by gradation, and to what extent the delicacy of it may be carried. Proceed with the work, however, until the color is so far diluted as to be ineffective; and do not rest satisfied till you are familiar enough with this process to secure a gradated tint of even and pleasant tone. As you feel more command of the pencil, you may use less water with the color, and at last get your result in three or four instead of twenty washes.

16. Next, divide the entire space into two equal squares, by a delicate lead line across it, placing it upright in the same manner; and begin your gradation with the same care, but replenishing the tint in the pure water from the dark tint in as narrow spaces as you can, till you get down the uppermost square. As soon as you pass the dividing line between the two squares, continue with the same tint, without darkening it, to the bottom, so that the lower square may be all of one tone. Repeating this operation three or four times, you will have the entire space divided into two equal portions, of which the upper one will be gradated from white into a delicate gray, and the lower covered with a consistent shade of that gray in its ultimate strength. This is to be your standard for the first shading of all white objects; their dark sides being of an uniform tint of delicate gray, and their light sides modeled in tones which are always paler in comparison with it.

17. Having practiced in this cautious manner long enough to obtain some ease in distribution of the tint, and some feeling of the delicacy of a true gradation, you may proceed to the more difficult, but wonderfully useful and comprehensive exercise, necessary for the copying of Plate X.

Draw first, with pencil compasses, the two circles with inch radius, and in the lower one trace lightly the limit of its crescent of shade, on the 22d meridian, considering the vertical meridian that of Fésolé. Then mix your tint of black with two teaspoonfuls of water, very thoroughly, and with that tint wash in at once the whole background and shaded spaces. You need not care for precision on their inner edges, but the

tint must be exactly brought up to the circumference of the circles on their light sides.

18. After the tint is thoroughly dry, begin with the circle divided in half, and taking a very little pure water to begin with, and adding, with a fine pencil, a little of the dark tint as you work down, (putting the light part upwards on your desk,) gradate, as you best can, to the shadow edge, over which you are to carry whatever tint you have then in your pencil, flat and unchanged, to the other side of the circle, darkening equally the entire dark side.

In the lower circle, the point of highest light is at the equator, on the 4th meridian. The two balls therefore, as shaded in the plate, represent two views of the revolving earth, with the sun over the equator. The lower figure gives what is also the light and shade of the moon in her third quarter. I do not choose to represent the part of the earth under the night as black: the student may suppose it to be in full moonlight if he likes; but the use of the figure is mainly to show the real, and narrow, extent of resources at his disposal, in a light and shade drawing executed without accidental reflected lights, and under no vulgar force of shadow. With no greater depths of tint than those here given, he must hold it his skill to render every character of contour in beautiful forms; and teach himself to be more interested in them, as displayed by that primal sincerity of light, than when seen under any accidental effects, or violent contrasts.

19. The tint prepared with two teaspoonfuls of water, though quite as dark as the student will be able at first to manage, (or as any master can manage in complex masses,) will not, when dry, give shadow more than half the depth of that used for the background in the plate. It must therefore be twice laid; the skill of the pencil management will be tested by the consistency of the two outlines. At the best, they are sure to need a little retouching; and where accurately coincident, their line will be hard, and never so pleasant as that left at the edge of a first wash. I wish the student especially to notice this, for in actual drawing, it is a matter of absolute

necessity never to reduplicate a wash at the same edge. All beautiful execution depends on giving the outline truly with the first tint laid as dark as it is required. This is always possible with well-prepared colors in a master's hand; yet never without so much haste as must, unless the mastery be indeed consummate, leave something to be forgiven, of inaccuracy, or something to be grateful for, in the rewarding chance which always favors a rightness in method. The most distinctive charm of water-color, as opposed to oil, is in the visible merit of this hasty skill, and the entertaining concurrence of accidental felicity. In the more deliberate laying of oil-color, though Fortune always takes her due share, it is not recognizable by the spectator, and is held to the utmost in control by the resolution of the workman, when his mind is wise, and his piece complete.

20. But the student must not be discouraged by the difficulty he will find at first in reaching anything like evenness or serenity of effect in such studies. Neither these, nor any other of the exercises in this book, are 'elementary,' in the sense of easy or initial; but as involving the first elements of all graphic Law. And this first study of light and shade in Plate X. does indeed involve one law of quite final importance; but which may nevertheless be simply expressed, as most essential matters may be, by people who wish it.

21. The gradation which you have produced on your first ten-inch space is, if successful, consistent in its increase of depth, from top to bottom. But you may see that in Plate X. the light is diffused widely and brightly round the foci, and fades with accelerated diminution towards the limit of darkness. By examining the law under which this decrease of light takes place on a spherical (or cylindrical *) surface, we may deduce a general law, regulating the light in impact on any curved surface whatever.

In all analysis of curved lines it is necessary first to regard

* In the upper figure, the actual gradation is the same as that which would be true for a cylinder.

them as made up of a series of right lines, afterwards considering these right lines as infinitely short.

22. Let therefore the line AB , Figure 31, represent any

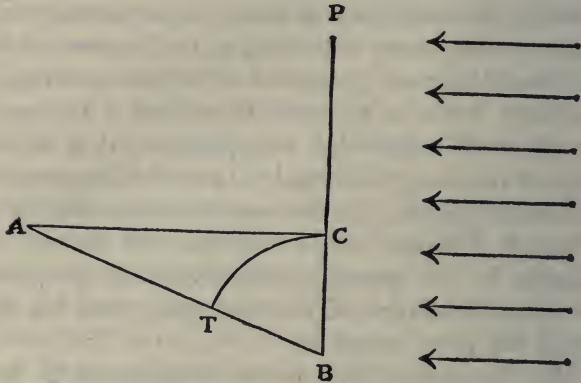


FIG. 31.

plane surface, or an infinitely small portion of any curved surface, on which the light, coming in the direction of the arrows, strikes at a given angle BAC .

Draw from B , BP perpendicular to AC , and make BP equal to AB .

Then the quantity of light, or number of rays of light, supposing each arrow to represent a ray, which the so inclined surface AB can receive, is to the quantity it could receive if it were perpendicular to the light, (at PB), as the line BC is to the line PB , which is equal to the line AB .

Therefore if we divide the line AB , from A to B , into any number of degrees, representing the gradual diminution of light, uniformly, from any given maximum at A to any given minimum at B , and draw the circle CT with the radius BC , cutting AB in T , the point T , on the scale of shade so gradated, will mark the proper tint of shade for the entire surface AB .

This general law, therefore, determines the tint of shade, in any given scale of shade, for the point of any curved surface to which the line AB is a tangent.

23. Applying this general law to the light and shade of a sphere, let the light, coming in the direction $L V$, Figure 32,

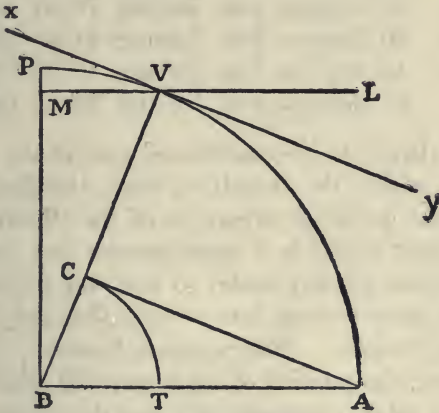


FIG. 32.

strike the surface of the quadrant PA at the point v , to which the line $x y$ is a tangent. B being the center of the sphere, join $B v$, and from A draw $A c$ parallel to $x y$, and therefore perpendicular to $B v$. Produce $L v$ to M , and draw the arc of circle $C T$, cutting $A B$ in T .

Then, by the law last enunciated, if we divide the line AB uniformly into any number of degrees of shade from the maximum of light at A to its minimum at B , the point T will indicate, on that scale, the proper shade for the point of sphere-surface, v . And because $B v$ equals $B A$, and the angle $B v M$ equals the angle $A B C$, $\therefore M v$ equals $B T$; and the degree of shade may at once be indicated for any point on the surface AP by letting fall a vertical from it on the uniformly gradated scale AB .

24. Dividing that scale into ninety degrees from A to B , we find that, on the globe, when the sun is over the equator, the Christian circle, though in 60 degrees north latitude, receives yet 45 degrees of light, or half the quantity of the

equatorial light, and that, approximately,* the losses of the strength of light in the climates of the five circles are,—

St. James's,	3 degrees loss,	leaving 87 of light.
Arabian,	12 degrees loss,	leaving 78 of light.
Venetian,	26 degrees loss,	leaving 64 of light.
Christian,	45 degrees loss,	leaving 45 of light.
Fern,	67 degrees loss,	leaving 23 of light.

But it is always to be remembered that in the real passing of day into night, the transition from the final degree of shadow on the gradated curvature of the illuminated hemisphere, to night itself, is a much greater one than it is our power to express by any scale: so that our 90 measured degrees do not carry us even into twilight, but only to the point and moment of sunset. They express, however, with approximate accuracy, the relation of the terrestrial climate so far as it depends on solar influences only, and the consequently relative power of light on vegetation and animal life, taking the single numerical expression as a mean for the balanced effect of summer and winter.†

25. Without encumbering himself, in practice, by any attempts to apply this, or any similar geometric formulæ, during the progress of his work, (in which the eye, memory, and imagination are to be his first, and final, instruments,) the student is yet to test his results severely by the absolute decrees of natural law; and however these may be prudently relaxed in compliance with the narrowness of his means, or concession to the feebleness of his powers, he is always to remember that there is indeed a right, and a wrong, attendant on the purpose and act of every touch, firm as the pillars of

* Calculated to two places of decimals by Mr. Macdonald, the Master of my Oxford schools, the fractional values are 3·07, 12·06, 26·36, and 66·71, giving the regulated diminishing intervals 8·99, 14·03, 18·64, 21·71, and 23·29, or, roughly, 9, 14, 18, 21, 23.

† The difference in effective heat between rays falling at large or small angles, cannot be introduced in this first step of analysis: still less is it necessary to embarrass the young student by any attempt to generalize the courses of the isothermal lines.



STUDY WITH THE LEAD AND SINGLE TINT. LEAF OF HERB-ROBERT.

the earth, measured as the flight of its hours, and lovely as the moral law, from which one jot or tittle shall not pass, till all be fulfilled.

26. Together with these delicate exercises in neutral tint, the student cannot too early begin practice in laying frank and full touches of every zodiacal color, within stated limits. He may advisably first provide himself with examples of the effects of opposition in color, by drawing the square of the Fern line, measured on his twelve-inch globe, within the square of the Venetian line; then filling the interior square with any one of the zodiacal colors, and the inclosing space between it and the larger square, with the opponent color: trying also the effect of opposition between dark tints of one color and light tints of the other: each wash to be laid on at once, and resolutely left without retouching. The student will thus gradually gain considerable power of manipulating the pencil, with full color; recognize more clearly day by day how much he has to gain; and arrive at many interesting conclusions as to the value and reciprocal power of opposed hues.

27. All these exercises must, however, be kept in subordination to earnest and uninterrupted practice with the pen-point or the lead; of which I give two more examples in the present number of *Fésole*, which, with those already set before the student, Plates V., VI., and VIII., will form a quite sufficient code for his guidance until I can begin the second volume.*

28. Plate XI. represents, as far as mezzotint easily can, a drawing of the plan and profile of a leaf of wild geranium, made lightly with the lead, and secured by a single washed tint above it.

Every care is to be given in study of this kind to get the outline as right and as refined as possible. Both shade and color are to be held entirely subordinate; yet shade is to be easily and swiftly added, in its proper place, and any peculiar local color may be indicated, by way of memorandum, in the

* During the spring I must confine my work wholly to *Proserpina*.

guarding tint, without attempting the effect of a colored drawing. Neither is any finish or depth to be sought in the shade. It should rightly indicate the surges or troughs of the leaf, and the course and projection of large ribs, (when the plan drawing is made of the under surface,) but it must not be laboriously completed or pursued. No study of this kind should ever take more than an hour for plan and profile both: but the outline should be accurate to the utmost of the student's power, and as delicate as the lead will draw.

29. Although, in beginning, precise measurements are to be taken of the leaf's length and breadth, yet the mistakes inevitable during execution cannot be easily corrected without some variation in the size; it is far better to lose the exact measurement than the feeling of the form. Thus my profile is nearly a quarter of an inch too long for the plan, because I could not get the spring of it to my mind in its first proportion. The *plan* may generally be kept to its true scale; and at all events the measures should be marked for reference within their proper geometrical limits, as in the upper outline, of which I have more to say in another place.

30. Plate XII. gives example of an equally rapid mode of study when the object is essentially light and shade. Here the ground is a deeply toned gray paper; the outline is made with stern decision, but without care for subtlety in minor points; some gradations of shade are rapidly added with the lead,—(BB); and finally, the high lights laid on with extreme care with body-white. Theoretically, the outline, in such a study as this, should always be done first: but practically, I find it needful, with such imperfect skill as I have, to scabble in the pencil shadows for some guide to the places of the lights; and then fasten everything down firmly with the pen outline. Then I complete the shadow as far as needful; clear the lights with bread first; and then, which is the gist of the whole, lay the high lights with carefulest discipline of their relations.

Mr. Allen's very skillful mezzotint ground is more tender and united than the pencil shadow was, in this case; or



PLATE XII.—LIGHT AND SHADE WITH REFUSAL OF COLOR.
PETAL-VAULT OF SCARLET GERANIUM. SCHOOLS OF
ST. GEORGE, ELEMENTARY DRAWING.

usually need be: but the more soft it is the better; only let no time be lost upon it.

31. Plate VIII., given in the last number of *Fésole*, for illustration of other matters, represents also the complete methods of wholesome study with the pen and sepia, for advanced rendering both of form and chiaroscuro.

Perfect form never can be given but with color, (see above, Chapter VIII. § 22). But the foundational elements of it may be given in a very impressive and useful way by the pen, with any washed tint. In the upper study, the pen only is used; and when the forms are complete, no more should be attempted; for none but a great master can rapidly secure fine form with a tint. But with the pen, thus used, much may be reached by the student, in very early stages of his progress.

32. Observe that in work of this kind, you are not to be careful about the direction or separation of the lines; but, on the other hand, you are not to slur, scabble, or endeavor to reach the mysterious qualities of an etching. Use an ordinary fine pen-point, *well kept down*; and let the gradations be got by the nearness or separation, singleness or crossing of the lines, but not by any faintness in them.

But if the forms be simple, and there be a variety of local colors which is important in the subject,—as, in the lower study, the paleness of the stamens of the pink in relation to its petals,—use the pen only for fine outline, as in Plate XII.; and when that is perfectly dry, complete the light and shade with as few washes as possible.

33. It is also to be noted that a dark background is admissible only, in chiaroscuro study, when you intend to refuse all expression of color, and to consider the object as if it were a piece of sculpture in white marble. To illustrate this point more strongly, I have chosen for the chiaroscuro plate, XII., a cluster of scarlet geranium; in which the abstraction of the form from the color brings out conditions of grace and balance in the blossom which the force of the natural color disguised. On the other hand, when the rich crimson of the

Clarissa flower, (Plate VIII.) is to be shown in opposition to the paler green of its stamens, I leave the background pure white. The upper figure in the same plate being studied for form only, admits any darkness of background which may relieve the contour on the light side.

34. The method of study which refuses local color, partly by the apparent dignity and science of it, and partly by the feverish brilliancy of effect induced, in engraving, by leaving all the lights white, became the preferred method of the schools of the Renaissance, headed by Leonardo: and it was both familiarized and perpetuated by the engravings of Dürer and Marc Antonio. It has been extremely mischievous in this supremacy; but the technical mischief of it is so involved with moral faults proceeding from far other causes, that I must not here attempt its analysis. Every student ought, however, to understand, and sometimes to use, the method; but all main work is to be with the severest respect to local color, and with pure white background.

35. Note yet once more. Although for facility of work, when form alone is needed, the direction of the pen-stroke is to be disregarded, yet, if texture, or any organic character in the surface of the object, be manifest, the direction or manner of breaking, in the pen touch, may pleasantly comply with such character, and suggest it. The plate of *Contorta Purpurea* (VII. in *Proserpina*) is thus engraved with the double intention of expressing the color of the flower and the texture of the leaf, and may serve for enough example in this particular; but it is always to be remembered that such expedients are only partial and suggestive, and that they must never be allowed to waste time, or distract attention. Perfect rendering of surface can only be given by perfect painting, and in all elementary work the student should hold himself well disengaged from serfdom to a particular method. As long as he can get more truths in a given time, by letting his pen-point move one way rather than another, he should let it easily comply with the natural facts,—but let him first be quite sure he sees the facts to be complied with. It is proper to follow the

striae of an ophrys leaf with longitudinal touches, but not, as vulgar engravers, to shade a pearl with concentric circles.

36. Note, finally, that the degree of subtlety in observation and refinement of line which the student gives to these incipient drawings must be regulated in great degree by his own sense and feeling, with due relation to the natural power of his sight: and that his discretion and self-command are to be shown not more in the perseverance of bestowing labor to profit, than in the vigilance for the instant when it should cease, and obedience to the signals for its cessation. The increasing power of finish is always a sign of progress; but the most zealous student must often be content to do little; and the greatest observe the instant when he can do no more.

37. The careless and insolent manners of modern art study, (for the most part,) forbid me the dread of over-insistence on minutiae of practice; but I have not, for such reason, added to the difficulty or delicacy of the exercises given. On the contrary, they are kept, by consistent attention, within the easy reach of healthy youthful hand and sight; and they are definitely representative of what should properly be done in *drawings*, as distinguished from the qualities attainable by the consummate line-engraver. As an example of what, in that more subtle kind, the human eye and finger can accomplish by severe industry, every town library ought to possess, and make conveniently accessible to its students, the great botanical series of the *Floræ Danicæ*. The drawings for the numbers produced before the year 1820 were in better taste, and the engravings more exemplary in manner, than in the supplementary numbers lately in course of publication: but the resolute and simple effort for excellence is unflinching throughout; and for precision and patience of execution, the nine plates, 2744 to 2753, may be safely taken as monumental of the honor, grace, and, in the most solemn sense, majesty, of simple human work,* maintained

* With truly noble pride, neither the draughtsman nor the engraver have set their names to the plates. "We are Men," they say, "with the

amidst and against all the bribes, follies, and lasciviousness of the nineteenth century.

38. Together with these, and other such worthily executed illustrations of natural history, every public institution should possess several copies of the 'Trésor Artistique de la France,' now publishing in Paris. It contains representations, which no mechanical art can be conceived ever likely to excel, of some of the best ornamental designs existing; with others, (I regret to observe, as yet, much the plurality,) of Renaissance jewelry, by which the foulness and dullness of the most reputed masters of that epoch are illustrated with a force which has not hitherto been possible. The plates, which represent design of the greater ages, more especially those of the Boite d'Évangélique of St. Denis, with the brooch and cassette of St. Louis, had better be purchased by those of my students who can afford the cost; and with these, also, the uncolored plates of the Coffret à Bijoux of Anne of Austria, which is exemplary of the best Renaissance wreathen work. The other pieces of sixteenth and seventeenth century toys, given in this publication are all of them leading examples of the essential character of Renaissance art,—the pride of Thieves, adorned by the industry of Fools, under the mastery of Satyrs. As accurately representative of these mixtures of bêtise with abomination, the platter and ewer executed in Germany, as an offering to the Emperor Charles V. on his victory at Tunis, are of very notable value: but a more terrific lesson may be read in the ghastly and senseless Gorgons of the armor of Henry II., if the student of history remember, in relation to them, the entertainment with which he graced his Queen's coronation; and the circumstances of his own death.

39. The relations between the rich and poor, on which the pomp of this Renaissance art was founded, may be sufficiently illustrated by two short passages, almost consecutive, in 'Evelyn's Diary':—

hearts and hands of Men. That is all you need know. Our names are nothing to you."

“ 11 May (1651).—To the Palace Cardinal, where y^e M^r. of Ceremonies plac'd me to see y^e royal masque or opera. The first sceane represented a chariot of singers compos'd of the rarest voices that could be procur'd, representing Cornaro and Temperance; this was overthrowne by Bacchus and his Revelers; the rest consisted of several enteries and pageants of excesse, by all the Elements. A masque representing fire was admirable; then came a Venus out of y^e clouds. The conclusion was an heaven, whither all ascended. But the glory of the masque was the greate persons performing in it: the French King, his brother the Duke of Anjou, with all the grandees of the Court, the King performing to the admiration of all. The music was 29 violins, vested à *l'antique*, but the habits of the masquers were stupendously rich and glorious.

* * * * *

“ 29 January.—I sat out in a coach for Calais, in an exceeding hard frost, which had continued some time. We got that night to Beaumont; 30, to Beauvais; 31, we found the ways very deepe wth snow, and it was exceeding cold; din'd at Pois; lay at Pernée, a miserable cottage of miserable people in a wood, wholly unfurnished, but in a little time we had sorry beds and some provision, w^{ch} they told me, they hid in y^e wood for feare of the frontier enemy, the garisons neere them continually plundering what they had. They were often infested with wolves. I cannot remember that I ever saw more miserable creatures.”

40. It is not, I believe, without the concurrence of the noblest Fors, that I have been compelled, in my reference to this important French series of illustrative art, to lead the student's attention forward into some of the higher subjects of reflection, which for the most part I reserve for the closing volume of the Laws of Fésole. Counting, less than most men, what future days may bring or deny to me, I am thankful to be permitted, in the beginning of a New Year of which I once little thought to see the light, to repeat, with all the

force of which my mind is yet capable, the lesson I have endeavored to teach through my past life, that this fair Tree Igdrasil of Human Art can only flourish when its dew is Affection; its air, Devotion; the rock of its roots, Patience; and its sunshine, God.

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Ruskin, John
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