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AN APOLOGY

FOR THE

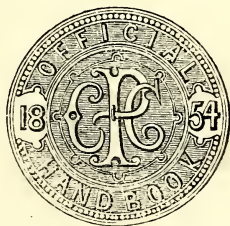
COLOURING OF THE GREEK COURT

IN THE

CRYSTAL PALACE.

BY

OWEN JONES.



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BRADBURY AND EVANS,  
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WHITEFRIARS.

AN APOLOGY

FOR THE

COLOURING OF THE GREEK COURT.

BY OWEN JONES.

WITH ARGUMENTS

BY G. H. LEWES AND W. WATKISS LLOYD,

AN EXTRACT FROM THE REPORT OF THE COMMITTEE APPOINTED TO EXAMINE  
THE ELGIN MARBLES IN 1836, FROM THE TRANSACTIONS OF THE  
ROYAL INSTITUTE OF BRITISH ARCHITECTS,

AND

A FRAGMENT ON THE ORIGIN OF POLYCHROMY,

BY PROFESSOR SEMPER.



## AN APOLOGY

FOR THE

# COLOURING OF THE GREEK COURT.

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THE coloured or colourless state of the monuments of the Greeks, and more particularly of their monumental sculpture, has long been a subject of discussion in the world of art; a discussion which, although it may have been carried on with too much faith on the one side, has certainly been accompanied, on the other, with too much prejudice.

At a very early stage in the arrangements for forming in the Crystal Palace a series of reproductions of architectural monuments, I felt that to colour a Greek monument would be one of the most interesting problems I could undertake; not indeed in the hope that I might be able completely to solve it, but that I might, at least, by the experiment remove the prejudices of many.

I felt persuaded that when we had a Greek monument placed side by side with reproductions of other coloured monuments, the authorities for which were indisputable, people would be more willing to recognise the necessity for believing that the monuments of Greece were no exceptions to those of civilisations which preceded or followed them, but that they also like the rest were coloured in every part, and covered with a most elaborate system of ornamentation.

So early as the publication of the "Antiquities of Athens," by

Stuart and Revett, the traces of ornaments on the mouldings of the Greek temples were known and published by them, some of the painted ornaments, however, which they found, being engraved in their work as if in relief; but artists were for long after unwilling to accept these fragments as evidence that an entire system of ornamentation prevailed on the Greek buildings. The late Jules Gouroy and Professor Semper, from whom will be found a paper on Polychromy in the Appendix, were amongst the earliest to direct attention to this subject; but the most diligent labourer in the field is M. Hittorff, of Paris, who has devoted many years to the production of a magnificent work, in which will be found all the facts that are known, and a history of the long discussion which this subject has provoked.

Mr. Penrose also, in his work on the "Principles of Athenian Architecture," has recorded all that he himself saw, but is reluctant to believe that any ornaments existed where traces of ornament can no longer be found. He feels that there is "some slight ground of evidence that a peculiar yellow tinge upon some parts of the columns, especially of the west front of the Parthenon, is not simply the yellow said to result from the oxidation of iron contained in Pentelic marble, but has been applied externally as a tint, though perhaps so delicately as merely to reduce the high light of the marble without obscuring its crystalline character."

He considers it "unreasonable to suppose that the ancients entirely concealed, or even materially altered in appearance, the general surface of the white marble, which they made a great point of obtaining whenever possible; but that no one who has witnessed the painfully dazzling effect of fresh Pentelic marble under the Athenian sun will deny the artistic value of toning down the almost pure white of its polished surface, and the more so when considerable portions of the architecture were painted in the most positive colours. We need not suppose," he says further, "this tone to have produced more than the difference between fresh white marble and ivory."



An examination of the facts recorded by these various authorities will convince any one that the question is now narrowed to one of degree only—

“To *what extent* were white marble temples painted and ornamented?”

I would maintain that they were *entirely* so; that neither the colour of the marble nor even its surface was preserved; and that, preparatory to the ornamenting and colouring of the surface, the whole was covered with a thin coating of stucco, something in the nature of a gilder's ground, to stop the absorption of the colours by the marble.

The Egyptians covered their buildings and statues in a similar way, no matter what the material; the Greek temples, which were built of lime-stone, were so undoubtedly; the ancient Greek terra-cottas almost without exception have traces of this ground.

To the belief that the Greeks employed it also on their marble temples, there is only one stumbling-block—the artificial value which white marble has in our eyes.

The Athenians built with marble because they found it almost beneath their feet, and also from the same cause which led the Egyptians to employ granite, which was afterwards painted—viz., because it was the most enduring, and capable of receiving a higher finish of workmanship. With these high thoughts of perfection and durability, they not only built their temples of Pentelic marble, but paved their carriage-way to them with the same material.

The ruin of the Parthenon, as seen at this day on the Acropolis, with the rich tones which the sun of centuries has developed upon it, is a very different thing from a bran-new white marble Parthenon, with many of its enrichments *proved* to have been picked out in the strongest colours. Such a building would have been horrible to behold under any sun, much more under that of Athens.

Could we set aside the whole of the evidence to the contrary;

could we forget the paintings recorded on its cella walls—its interior filled with upwards of six hundred statues, many of them of colossal dimensions, enriched with painting, ivory, gold, and precious stones, which would demand a far different treatment of the building which contained them; could we forget that when a marble statue left the hand of the first of sculptors, it passed into the hands of an equally celebrated encaustic painter to receive its ultimate finish;\* could we forget the varieties of material which they combined, certainly harmoniously, in the statues of their gods—the varieties of colour which they gave to a material, by us considered to be so uniform as bronze, in which to heighten the expression they wished to obtain; (by alloys of iron, silver, and gold, used on the various portions of a figure, the greatest known sculptors produced the paleness of death,—the blush of shame,—the smile on the mouth,—the fire of the eye, and the healthy redness of the cheek;)<sup>†</sup> the ornaments of metal with which many of the marble statues were covered—earrings, bracelets, armlets, sandals, bands round the hair, crowns, diadems of pearls, precious stones, eyes of silver, glass, and precious stones; the metal crown of the Laocoon, the metal casque of the statue of Mars, the metal drapery of the Antinous, the earrings of the Venus de' Medici, or her golden hair;—could we set aside the evidence either of that which is recorded, or of that which may still be seen, we should yet have felt that it must have been so, from the knowledge we have of the practice of those civilisations which preceded and followed that of the Greeks. How can one believe that at one particular period in the practice of the Arts, the artistic eye was so entirely changed that it became suddenly enamoured of white marble? Such an idea belongs only to an age like that through which we have just passed—an age equally devoid of the capacity to appreciate, and of the power to

\* See page 31.

† See Quatremère de Quincey.

execute, works of art—when refuge is taken in white-washing.

Under this influence, however, we have been born and bred, and it requires time to shake off the trammels which such early education leaves.

There is another theory which it is necessary to notice, viz., that the marble was not painted, but stained in some way or other, so as still to retain the transparency of the marble. As this has never been tried, and can only be tried on marble, I dare not say that it would not produce an agreeable result. I am not able, however, to conceive it, and feel certain that it could not fulfil the required conditions of monumental sculpture, though presenting more chance of success with isolated works.

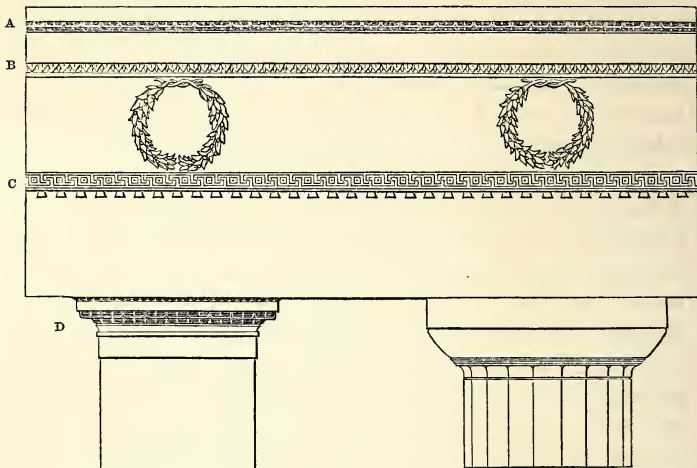
As far as regards monumental sculpture, the evidence of Mr. Bracebridge, which was produced before the committee of the Institute,\* would appear to settle the point. The fragments dug up at Athens in the winter of 1835-36, are stated by him to have been in perfect preservation, and "*painted with the brightest red, blue, and yellow, or rather, vermilion, ultramarine, and straw colour, which last may have faded in the earth.*" He further states, that "*the colours were laid on in thick coats.*"

#### COLOURING OF THE COURT.

I may state at the outset that I have been restrained in this attempt at rendering the effect of the coloured architecture of the Greeks—that I have set bounds to my imagination. I most fully believe that the Greek monuments were coloured and ornamented on a much higher key than I have ventured to attempt, whilst the public eye requires preparation for receiving what there are as yet so few facts to substantiate.

\* See page 40.

The only portions of the colouring of this court for which there is absolute authority, are the leaves on the moulding **A**, and the enrichments on the pilaster-caps, **D**, which are thus published by Mr. Penrose, in his work. Traces exist of the enrichment **B**, and the fret on the architrave band, **C**, of a stain indicating the form of the ornament, but without traces of colour.



The colouring of the moulding **A**, which is known, is alone sufficient for our purpose. It establishes two broad principles for our guidance; first, that of the alternation of colour, second, that the colours were so employed as best to define the moulding they enriched.

Specks of blue and red (or, as observed by others, green and red) have been found in several monuments on this moulding, which from its form is more likely to have retained colour than any other. The absolute value of these colours is of course not known; hence the liberty of believing that they were only stains or tints, not positive strong colours. A glance at the experiment is sufficient to upset this theory

at once ; the ornament, with anything short of the strength of colour we have employed, would have been invisible even at the height we see it, much more so at the height the original was placed.

As the bed-mould B represents, by the lines of the stain, similar mouldings carved in relief in other monuments, I felt I was safe in using the colours in such a way as best to represent the object it imitated. I have therefore placed the gold where, had the ornament been in relief and gold employed, gold must have been placed to have been seen to the best advantage, that is, on the convex surfaces. So of the other colours.

In colouring the fret C I have followed the same principle ; if they took the trouble to paint so minute an ornament at such a height, we may be quite sure that they took every pains to make it as distinct as possible, and, therefore, in using blue and red alternately, I have endeavoured to make the lines of the fret more apparent.

I was led at once to adopt a blue ground for the frieze, occupying, as it does, the place of the usual frieze of triglyphs and metopes in other monuments where the blue ground predominated ; I felt the Greek eye would have demanded it here had such an arrangement as that of our frieze existed on a Greek monument.

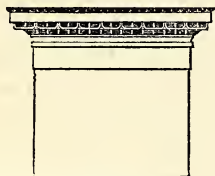
The red within the wreaths was necessary, both for general harmony, and also to prevent the eye passing through the wreaths, which would have been the case had the blue ground been uninterrupted.

The soffit of the cornice I have coloured red, because I have no doubt that wherever blue, red, and yellow or gold were used, this must always have been the place of the red ; and I experienced great pleasure, when in speaking on this subject with M. Hittorff of Paris, he brought forth a fragment of a soffit from Selinus, which, as he held it in his hand, showed a surface perfectly white, but removing his hand from it, discovered a

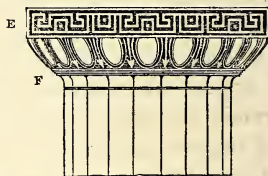


large patch of the strongest red still remaining on the surface of the preparatory coat of stucco with which the temple at Selinus was covered.

The boldest step I have taken is in colouring the capitals of the columns; the abacus E and the echinus F.



Known.



Unknown.

The echinus of the Greek column is a moulding so perfect, and so much refinement was used upon it by the Greeks, that few believe it was ever intended to be ornamented. It is supposed that much of this refinement was exercised by the Greeks on this curve in order to prepare it for the shadow which the angle of the abacus cast upon it, and that all this would have been lost or disturbed by a painted ornament on the surface.

There are others, however, equally strong in the belief that it was painted and ornamented, amongst whom M. Hittorff, who, in his work, gives two illustrations from drawings of Greek columns on vases, one of which has an ornamental abacus, and the other with the honeysuckle ornament on the echinus. As all the ornaments on Greek vases are analogous to those of Greek temples, it is fairly concluded that the painter of the columns on the vases only represented what he was accustomed to see on the columns of buildings.

I am not alone in the belief that the echinus was ornamented with the egg-and-tongue ornament; in fact, the form of the moulding suggests this in preference to any other. It certainly gives the best form for resolving the upward running-lines of the flutes.

As from all the examples we have, the fret ornament is found

universally on flat bands, I have adopted it for the surface of the abacus, and have chosen a fret which, returning within itself, prevents the eye from running outwards, upwards, or downwards, which is generally the case with most frets.

The spandrils of the abacus I have supplied with an ornament which I thought would best carry the eye from the square of the angle into the circular moulding.

It is difficult to suppose that the capitals of the columns could appear unornamented side by side with pilaster-caps so elaborately enriched; and we think it will freely be admitted that of the two, the known Greek pilaster-cap, and that of my experimental column, the latter is more quiet.

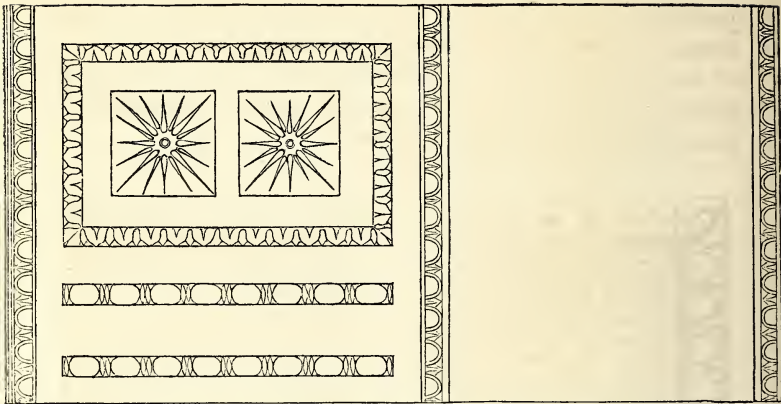
A simple reference to the cuts will be sufficient to convince any unprejudiced person that the minute scale of the ornaments on the pilaster-cap demands a higher key of ornamentation than that I have adopted.

For the general tone of the plain portions of the monument, I have adopted a general tint of yellow, but, as I said before, I believe that the Greeks carried their ornamentation much beyond this. I think the architrave was enriched with ornaments—certainly the soffits; and in monuments like the Parthenon, I can come to no other conclusion but that the columns were gold.

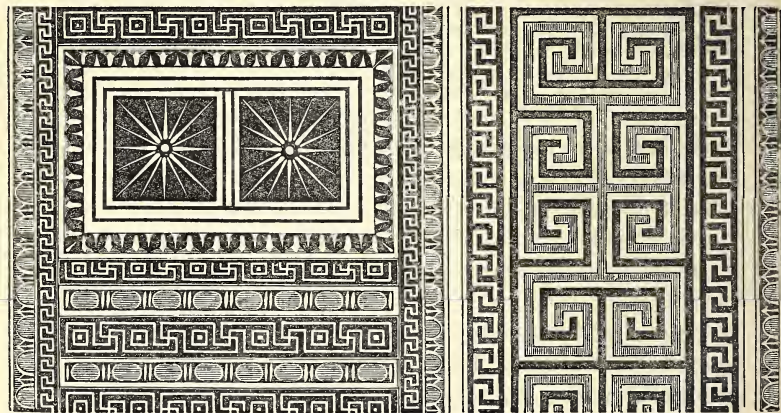
In the flutes of the Ionic columns of the Eretheum red has been distinctly seen. This can only have been the ground for gold; the fillets which separate the flutes of the Ionic column may then have been white, but the flutes of the Doric column presenting a sharp arris, which could not receive colour to separate the colours of the flutes, the columns must have had one uniform tint, whatever it might have been, and we can conceive no other worthy of such a building as the Parthenon, or able to support the decoration above, but gold.

There is no authority for the gilding of the antefixæ, nor for the guttæ, but their form suggests the only mode of treatment they could receive with effect.

## CEILING UNDER THE GALLERY.—THE TWO END BAYS.



Portion of the Ceiling, showing what is known of the Decoration.

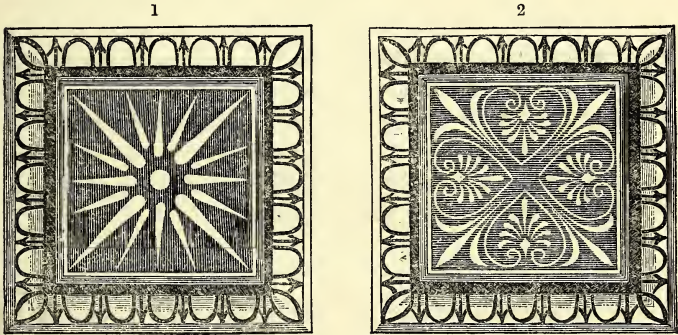


Portion of the Ceiling as Painted.

The diagram at once explains what is known in this attempt of supplying the colours for a Greek ceiling; the colours however even of this are doubtful. Traces only of the stains are known, and some of the ornaments have been supposed to be



coloured in such a way as to destroy the very effect, which a mere glance at the diagram will show was intended to be produced—viz., to imitate, or rather take the place of ornaments in relief. The star in the centre of the coffer has traces of red upon it, and has been published as a red star on a blue ground; but Mr. Penrose, in his work, makes it gold, which is a much more probable arrangement.



Painted Ornaments in the Centres of the Coffers of the Ceiling of the Propylæa, Athens, as published by Mr. Penrose.

It will be seen that the parts I have supplied are frets on the plain soffits of the beams and the ornament on the side of the beams; the frets I have used in such a way as best to define the architectural lines of the ceiling.

Those who are inclined to believe that *wherever* the Greeks ornamented, *there* traces of ornament are found, and that consequently where no ornament is found none existed, of course stop at the stage represented by the outline diagram, and believe that the general harmony which such partial ornamenting would disturb was restored by covering all the plain parts with stains or tints which may or may not have been varied. Till more is known all this must ever remain matter of opinion and subject to dispute.

This opinion, however, is entirely based on the fact that the

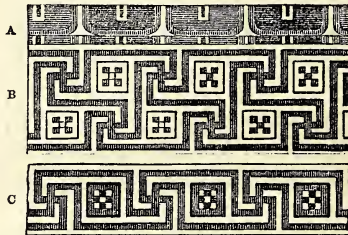
traces of ornament which do remain are all engraved in outline on the marble with a sharp instrument; and it is therefore concluded that this was the universal practice of the Greeks, and that, where no engraved line exists there was no ornament. I think this a very bold assumption.

It is evident that in such enduring ornaments as those of the Greeks, provision must have been made for repaintings; and, therefore, on their moulded surfaces they took care to leave an enduring mark of the pattern, more especially as these mouldings were in positions most difficult of access; whilst on the broader surfaces this labour in the beginning would not be necessary, as the ornaments may have been readily repainted without it.

In the three centre bays we have attempted a still higher key of colour. The ornaments of the coffers are suggested by No. 2, from the coffers of the Propylæa.

#### MOULDINGS ENCLOSING THE PANATHENAIC FRIEZE.

The enrichment A, and the fret B and C, are published by Mr. Penrose; A, coloured exactly as I have shown it, and B and C with the fret only in gold, of which he imagines the pattern now on their surfaces may have been the trace.

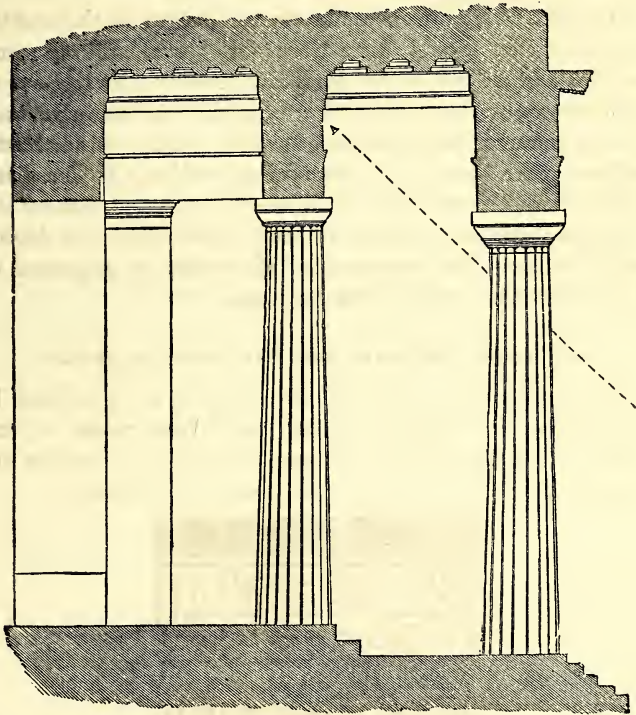


Architrave Band, as published by Mr. Penrose.

The principle of colouring on the moulding A helps to the colouring of the frets B and C, which, placed in the original 40 feet from the ground, would have been invisible in gold alone or any other tint.

## THE PANATHENAIC FRIEZE.

I have placed in the gallery behind the Greek and Roman Courts, casts from the Elgin frieze of the British Museum,\*

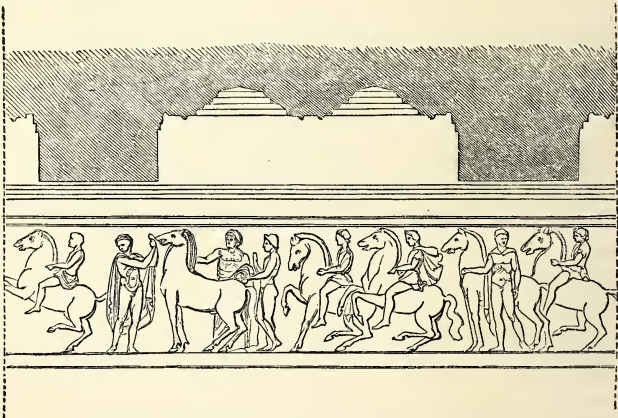


for the express purpose of showing how it might possibly have been coloured.

\* The casts obtained from the British Museum were first fixed in their place ; the missing portions were then supplied, by inserting casts of portions of the frieze found perfect in other parts of it. Thus, when a head, hand, or foot was wanting, a cast was taken of a head, hand, or foot, where found perfect, and then inserted. So that this frieze, although not an absolute reproduction of the original, is as nearly as possible all Greek. This restoration was confided to Mr. Raffaele Monti, assisted by Franz Mitterlöchner and Andreas Grass.

That it was coloured in some manner or other there can be no manner of doubt, and we think that any unprejudiced person who will examine the portion of the frieze in white at the end of gallery, with the known painted ornament above and below it, will at once admit this. There are other considerations which would lead one to imagine it destined to receive colour, even had no traces of colour been found on the architecture above and around it. As there are still many who believe, and will believe against all evidence, that this frieze never was painted, I must bring forward some arguments which appear to me so strong as to render the idea of its colourless state impossible.

This frieze in the Parthenon is 40 feet from the ground to the centre of it, and in the position A on the section (p. 17), whilst our experiment is only 16 feet, to the centre of the bas-relief: to be seen at an angle of  $45^\circ$ , the eye of the spectator must have been at least 60 feet from it: now only let the visitor stand at this distance from the portion of our cast that remains in white, and he will see how little of the detail is visible to the eye.



Section showing the position of the Panathenaic Frieze.



Let him place himself at the same distance from the portion of frieze which I have painted, and he will see how visibly colour develops form.

How many thousands pass daily the Athenæum Club in Pall Mall and are not conscious that there is above their heads a copy of this divine work of Phidias; if this were coloured (as it ought to be) who could pass by and escape it. The frieze in the Parthenon could not have been seen without colour as distinctly as the copy on the Athenæum Club, as it was under a portico, and in shadow.

People are apt to argue that Phidias never could have taken such pains to study the light and shade of this bas-relief if the fineness of his workmanship had had to be stopped up when bedaubed with paint.

Now people who argue thus have never understood what colour does when applied to form. The very fact that colour has to be applied, demands the highest finish in the form beneath. By more visibly bringing out the form it makes all defects more prominent. Let any one compare the muscles of the figures in white, with the muscles of those coloured, and he will not hesitate an instant to admit this truth. The labours of Phidias, had they never received colour, would have been thrown away; it was because he designed them to receive colour that such an elaboration of the surface was required.

My attempt is seen under every disadvantage; it is too near the eye and too near the light; and it is painted on a material which is most ungracious for the reception of colour. The minute undulations of marble always lose something in a plaster reproduction, but when the plaster has further to be painted with four coats of oil paint to stop the suction, it may readily be imagined how much the more delicate modulations of the surface will suffer.

I have preferred, however, to put forth this experiment with all its disadvantages, than attempt to soften the asperities by any artificial arrangement, convinced that if it can find

some favour in its present position, it would gain immeasurably by being seen in a position analogous to that occupied by the original.

It will be seen further on that no traces of colour exist at the present time on these marbles; they were moulded in Athens prior to their removal to this country, and whatever colour they may have then retained disappeared during the cleansing of the marbles by soap- lees, after the process of moulding.

We are therefore driven to the remains of colour on other monuments, and to analogy for the proposed restoration of the several colours.

#### BACKGROUND.

The colour of the background of some of the pediments of the Greek temples is known to have been blue, and if we admit that the bodies of the figures were painted at all, it could have been no other colour. The flesh colour being necessarily some kind of red, would have been injured by a red ground, whilst yellow would have advanced to the eye, and can form a background only to white, the only colour more advancing than itself. I believe, and it is generally accepted as proved, that the ground was blue; and as there are many who stop here, admitting the blue ground, but denying the colouring of the figures, a portion of the frieze has been left in this stage, to enable them to form a judgment upon it.

#### THE HAIR.

When I first attempted the experiment, I had a strong instinct that the hair should be gold; but not having then authority for it, I was induced to try it both brown and grey; neither of these colours, however, was satisfactory; but having afterwards seen the collection of terra-cottas in the Louvre, I became convinced that I was right in supposing that they should be gold. In all these specimens the hair is of an intense red, which can only have been the ground of

gilding, now obliterated. In the Elgin frieze, in the British Museum, may still be seen the holes which were drilled to fix on the metallic trappings, which were also, no doubt, gilt; and were these affixed in our experiment, the effect would be much more harmonious.

#### THE FLESH.

The most difficult point to determine, is the colour of the flesh. It is evident that the Greeks would avoid every attempt at representing nature. Whatever colours they used, we may be sure that they were treated conventionally only, so as to suggest the nature of the object represented, yet not to attempt a direct imitation; we must feel, however, that they went to the utmost limit of conventionality.

M. Hittorff has in his possession a fragment of a figure from Selinus, retaining a flesh colour very similar to that which we have employed.

Although colour has been found on the hair, eyes, lips, and drapery of Greek fragments of marble, no traces have as yet been found on the nude portions. And those who believe that the marble of the Greeks was only stained and not painted, build up a triumphant argument on this. The explanation, however, is very simple; it is evident that the smooth portions of a coloured object would lose their colour first under the influence of time, and, in fact, all traces of colour that ever are found, are found in the folds and crevices, from which it is fairly argued that the surface of which they formed a part was of that colour.

Even in the Alhambra, which was entirely covered with colour, and which is so many centuries nearer our time than the Greek temples, colour is but rarely found on the surface: it is only by what is found in the depths and hollows, that we know how the whole was coloured.

On the terra-cottas of the Louvre there are figures where the white ground with which the whole surface of the terra-

cottas was covered, remains perfect over the whole of the figures, at the same time that a fragment of flesh tint still remains upon some portion of it. Were this absent, it might equally well be argued, that the Greeks were in the habit of painting the flesh white on their terra-cottas.

#### HORSES.

In seeking a colour for the horses, I felt the choice lay between red, white, black, or grey; further, that whatever colour was employed, it would be in such a way as best to define and distinguish the various portions of the groups. I do not think that a single colour, or shades of the same colour, would have fulfilled this condition. White horses would have been too prominent, black too sombre. The red I have employed appeared to be the best colour for the principal horses, as best balancing by their masses the blue background, whilst the relief between horse and horse could be harmoniously obtained by the employment of grey for the back horses. Authority for this mode of treatment exists on the Greek vases and in the Etruscan tombs, where, when one horse passes before another, there is a change of colour. As the horses in this frieze are in ranks of nine, it is most probable that there was still more variety of colour than I have attempted, to keep the various groups together.

#### THE DRAPERIES.

I was led to adopt this mode of treating the draperies from the inspection of the Louvre collection of terra-cottas, where the draperies are very well preserved. They are mostly pale blue and pale pink, the pale blue with a pink border and the pink drapery with a blue border. I have arranged the draperies in the way I felt most conducive to the general effect, so as to bring the whole into harmony. The colours of the other portions of the dresses are suggested by the materials which they may be presumed to represent.



In placing this experiment before the public, I am quite aware how vain would be the hope that I had produced a result worthy of the Greeks; where there is so little to guide, success is well nigh impossible. The most that I could hope to attain was to produce a result that might have existed, and that would not have been discordant with the other portions of a Greek monument. My failures even would answer a useful purpose, if they served to direct other minds to work out this most interesting problem, and to induce further researches on the monuments of Greece, which have hardly yet been examined in this direction, because they have not as yet been examined with faith, but rather with reluctance.

The experiment cannot be fairly tried till tried on marble, and in conditions of space, atmosphere, &c., similar to those under which the originals were placed.

I would ask those critics who stand on the ground of traditional opinion, not too rashly by hard words to attempt to stop the inquiry which this experiment may suggest. The facts are too strong to be put aside by any opinion. If all who are anxious for the truth will only seek it, there is little doubt that we may approach, if we do not reach it.

I have done all in my power to aid the cause. I have stood in the breach, and shall be content should others walk over me to a more complete victory. I am only anxious, in the meanwhile, that the Greeks should not be condemned on my account.

I have no authority whatever for the colouring of the monument of Lysicrates in the Great Transept. One fact deserves to be recorded, the beautiful bas-reliefs of the frieze were absolutely invisible from below, when in white, and this made me certain that it was a monument designed to receive colour, and I therefore determined to attempt its restoration.

OWEN JONES.

CRYSTAL PALACE, *June*, 1854.

## NOTE BY MR. PENROSE.

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I HAVE seen no reason to alter my opinion (quoted p. 6) that the surface of the marble played a considerable part in the general effect, and that it was not concealed with paint, but tinged or stained in some manner to the proper tone. An extensive and careful examination of the Pentelic quarries by the orders of King Otho has shown that large blocks such as were used at Athens are very rare indeed. The distance also from the city is considerable : whereas there are quarries on Mount Hymettus at little more than one-third of the distance (and most convenient for carriage), which furnish immense masses of dove-coloured marble (much prized, it would seem, by the Romans, Hor. ii. 18), and inferior in no respect but that of colour to the Pentelic. It could therefore only have been the intrinsic beauty of the latter material that led to its employment by so practical a people as the Athenians. With respect to the use of the outline traced with a sharp point (p. 16), had this been a provision for repaintings, its absence from the Doric echinus is at least conclusive that there was no ornament painted on that member ; for on no part of the architecture would the difficulty of reproducing the pattern have been greater. But since these outlines are found indifferently both on small and large mouldings, it seems to be a sound conclusion which limits the painted ornaments to the parts so outlined.

### REPLY.

I do not think that, with our present ideas of economy, we are able to appreciate the motives of the Athenians in choosing their marble from the Pentelic quarries in preference to those of Mount Hymettus. We must remember that the Greeks built for their gods ; and the Pentelic marble, by presenting greater difficulties in its acquisition may have been a more precious offering. I can more easily understand this than the use of granite by the Egyptians, which was sought for from quarries much more distant, and presented difficulties of workmanship many times greater.

Mr. Penrose has examined most minutely the capitals of the columns of the Parthenon, and is convinced that no outline of any kind exists upon them ; but I am not so convinced that there never was one there, because, although outlines are found on fragments of some of the mouldings, they do not exist everywhere on the same moulding : it is only under favourable circumstances that the outline has been preserved. A Doric echinus may yet be found with outlines upon it.

OWEN JONES.

## HISTORICAL EVIDENCE.

### NOTE.



I HAVE been favoured by Mr. G. H. Lewes with the following arguments derived from a perusal of Quatremère de Quincey, Winckelmann, and the passages of ancient authors which are supposed to throw light on this question ; these I have submitted to a well-known authority on Greek literature, Mr. W. Watkiss Lloyd, and place here his observations on the argument of Mr. Lewes, as I am most anxious that the public should be in possession of whatever can be said on either side.

## HISTORICAL EVIDENCE.

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THE idea of the Greeks having painted their statues is so repugnant to all our modern prejudgments, that the mind is slow in familiarising itself with the fact, even when indisputable evidence is brought forward. The Greeks were artists of such exquisite taste, and of principles so severe, that to accuse them of having *painted statues*, is to accuse them of committing what in our day is regarded as pure "barbarism." The Greeks did not aim at reality, but at ideality; and the painting of statues is thought to be only an attempt to imitate reality.

Nevertheless, however startling, the fact remains: the Greeks *did* paint their statues. Living eyes have seen the paint. Living testimony supports the testimony of ancient writers, and all that will be necessary in these pages is to furnish some of the principal points of evidence.

In the first place, the reader must get out of all sculpture galleries, erase from his mind all preconceptions derived from antique remains and modern practices. Having done so, let him reflect on the historical development of sculpture, and he will see this idea of painted figures falling in its true place.

Sculpture of course began in Greece, as elsewhere, with idols. It is the custom of all barbarous nations to colour their idols. The Egyptians, as we know beyond all doubt, not only coloured, but dressed theirs. So did the Greeks. It may be a question, whether the Greeks borrowed their art from the Egyptians, improving it, as they did everything else. Let scholars decide that question. This, however, is certain, that in either case the Egyptian practice would obtain—

1st. If the Greeks borrowed from the Egyptians, they would borrow the painting and dressing.

2nd. If they did not borrow—if their art was indigenous—then it would come under the universal law of barbarian art; and painting would, at any rate in the earlier epochs, have been

employed. (We know that both painting and dressing were employed in all epochs.)

This being so, and the custom being universal, unless the change from painted to unpainted statues had been very gradual, insensibly so, the man who first produced a marble statue without any addition would have been celebrated as an innovator. No such celebrity is known.

Ancient literature abounds with references and allusions to the practices of painting and dressing statues. Space prevents their being copiously cited here. Moreover, many of them are too vague for *direct* evidence. Of those which are *unequivocal* a few will be given.

*Dressing Statues.*—Pausanias describes a nymphæum, where the women assembled to worship, containing figures of Bacchus, Ceres, and Proserpine, the heads of which alone were visible, the rest of the body being hidden by draperies. And this explains a passage in Tertullian (“*De Jejun.*,” 16), where he compares the goddesses to rich ladies having their attendants specially devoted to dress them—*suas habebant ornatrices*. For it must be borne in mind that the Greek idols, like the saints in Catholic cathedrals, were kept dressed and ornamented with religious care. Hence Homer frequently alludes to the offerings of garments made to propitiate a goddess; thus, to cite but one, Hector tells Hecuba to choose the most splendid *peplos* to offer to Minerva for her aid and favour. Dionysius, the Tyrant of Syracuse, according to a well known anecdote, stripped the Jupiter of his golden cloak, mockingly declaring that it was too heavy for summer, and too cold for winter.

“The golden cloak of the Sicilian Jupiter seems scarcely to illustrate the subject of dressing statues—as it was probably not drapery, not cloth enriched with gold—but solid, like the golden *Ægis* of the Minerva of Phidias, which could be removed and replaced.”—W. W. LLOYD.

These *dressed* statues were for the most part *dolls*, however large. The reader must remember that the dolls of his nursery are the lineal descendants of ancient idols. Each house had its lares or household gods; each house had its dressed idols. Statues, in our sense of the word, were, it may be supposed, not dressed; but that they were painted and ornamented there seems to be ample evidence.

*Coloured Statues.*—If we had no other evidence than is afforded in the great *variety* of materials employed—ivory, gold, ebony, silver, brass, bronze, amber, lead, iron, cedar, pear-tree, &c.,



it would suffice to indicate that the prejudice about "purity of marble" is a prejudice. The critic may declare that a severe taste repudiates all colour, all mingling of materials; but the Greek sculptors addressed the senses and tastes of the Greek nation, and did so with a view to *religious* effect, just as in Catholic cathedrals painted windows, pictures, and jewelled madonnas appeal to the senses of the populace.

The Greeks made statues of ivory and gold combined. They also combined various metals with a view of producing the effect of *colour*. One example will suffice here. Pliny tells us (lib. xxxiv. cap. 14) that the sculptor of the statue of Athamas, wishing to represent the blush of shame succeeding his murder of his son, made the head of a metal composed of copper and iron, the dissolution of the ferruginous material giving the surface a red glow—*ut rubigine ejus per nitorem aris relucente, exprimeretur verecundia rubor*. Twenty analogous examples of various metals employed for colouring purposes might be cited. Quatremère de Quincey, in his great work, "Le Jupiter Olympien," has collected many.

The reader may, however, admit that statues were made of various materials, and that the bronze statues—which were incomparably more numerous than the marble, may have been tinted, but still feel disinclined to believe that the *marble* statues were ever painted. A few *decisive* passages shall be adduced.

Let it be remembered that Socrates was the son of a sculptor, and that Plato lived in Athens, acquainted with the great sculptors and their works; then read this passage, wherein Socrates employs, by way of simile, the practice of painting statues: "Just as if, when painting statues, a person should blame us for not placing the most beautiful colours on the most beautiful parts of the figure—inasmuch as the eyes, the most beautiful parts, were not painted purple, but black—we should answer him by saying, Clever fellow, do not suppose we are to paint eyes so beautifully that they should not appear to be eyes." (*Plato*, "De Repub." lib. iv., near the beginning.)

This passage would long ago have settled the question, had not the moderns been pre-occupied with the belief that the Greeks did *not* paint their statues. They, therefore, read the passage in another sense; many translators read "pictures" for "statues." But the Greek word *ανδριας* signifies "statue," and is *never* used to signify "picture." It means statue, and a statuary is called the maker of such statues, *ανδριαντοποιος*. (Mr. Davis, in Bohn's

English edition of Plato, avoids the difficulty by translating it "human figures.")

"This passage is decisive as far as it goes, but it does not touch the question of colouring the flesh. It proves that as late as Plato's time it was usual to apply colour to the eyes of statues; and assuming, what is not stated, that marble statues are in question, we are brought to the same point as by the Æginetan marbles, of which the eyes, lips, portions of the armour and draperies were found coloured. I forget whether the hair was found to be coloured, but the absence of traces of colour on the flesh, while they were abundant elsewhere, indicates that if coloured at all it must have been by a different and more perishable process—by a tint, or stain, or varnish. The Æginetan statues being archaic, do not give an absolute rule for those of Phidias. The archaic Athenian bas-relief of a warrior in excellent preservation, shows vivid colours on drapery and ornaments of armour, and the eye-balls were also coloured; but again, there is no trace of colour on the flesh."—  
W. W. LLOYD.

Here is a passage which not only establishes the sense of the one in Plato, but while unequivocally declaring that the ancients painted their statues gives the reason why the paint is so seldom discoverable in the antique remains. It is from Plutarch ("Quæst. Roman." xcvi., at the end): "It is necessary to be very careful of statues, otherwise the *vermilion with which the ancient statues were coloured will quickly disappear.*"

"This passage refers to archaic sacred figures, and at Rome (not in Greece), where after providing for the sacred geese and ganders, the first duty of certain officials on taking office was to furbish the *agalma*, or statue, which was necessary on 'account of the quick fading of the vermilion with which they used to tinge the archaic statues.' This is an accurate translation and a literal—and implies a difference between the archaic and the more modern in respect of colour, though not necessarily excluding all colour from the latter."—W. W. LLOYD.

Had this passage been generally known the dispute could never have maintained itself. There is nothing equivocal in the use of the word *μιλτων*, which means "vermilion;" nothing which admits of doubt in the phrase *φ τα παλαια των αγαλματων εχρωζον*. And there are abundant notices extant which illustrate it.



One will suffice. The celebrated marble statue of a Bacchante by Scopas is described as holding, in lieu of the Thyrsus, a dead roebuck which is cut open, and the marble represents living flesh. People have tried to explain this by saying that Scopas discovered coloured veins in the marble, which he used to indicate living flesh. The explanation is absurd. In the first place veins do not so run in marble as to represent flesh; in the second, unless statues *were* usually coloured, such veins, if they existed, would be regarded as terrible blemishes, and the very thing the Greeks are supposed to have avoided—viz., colour as representing reality—would have been shown.

But colour *was* used, as we know, and Pausanias (“Arcad.” lib. viii., cap. 39) describes a statue of Bacchus as having all those portions not hidden by draperies, painted vermilion, the body being of gilded wood. He also distinctly says that the statues made of gypsum were painted, describing a statue of Bacchus *γυψου πεποιημενον*, which was—the language is explicit—“ornamented with paint” *επικεκοσμημενον γραφη*.

“This statue was apparently ithyphallic, and probably archaic.

Not drapery, but ivy and laurel, concealed the lower part of it. The colour of the exposed part was not local, but applied to the whole of it.”—W. W. LLOYD.

Virgil, in an epigram, not only offers Venus a *marble* statue of Amor, the wings of which shall be many-coloured and the quiver painted, but he intimates that this shall be so because it is customary—

Marmoreusque tibi, Dea, *versicoloribus* alis  
In morem pictâ stabit Amor pharetrâ.

And in the seventh Eclogue, Virgil, speaking of the statue of Diana, describes it as of marble with *scarlet* sandals bound round the leg as high as the calf.

Si proprium hoc fuerit, levi de marmore tota  
Puniceo stabis suras evincta cothurno.

And there is a passage in Pliny which is decisive, as soon as we understand the allusion. Speaking of Nicias (lib. xxxv. cap. 11), he says, that Praxiteles, when asked which of his marble works best satisfied him, replied, “Those which Nicias has had under his hands.” “So much,” adds Pliny, “did he prize the finishing of Nicias”—*tantum circumlitioni ejus tribuebat*.

The meaning of this passage hangs on the word *circumlitio*.

Winckelmann follows the mass of commentators in understanding this as referring to some mode of *polishing* the statues; but Quatremère de Quincey, in his magnificent work "Le Jupiter Olympien," satisfactorily shows this to be untenable, not only because no sculptor could think of preferring such of his statues as had been better polished, but also because Nicias being a *painter*, not a sculptor, his services must have been those of a painter.

What were they? Nicias was an *encaustic painter*, and hence it seems clear that his *circumlitio*—his mode of finishing the statues, so highly prized by Praxiteles—must have been the application of encaustic painting to those parts which the sculptor wished to have ornamented. For it is quite idle to suppose a sculptor like Praxiteles would allow another sculptor to *finish* his works. The rough work may be done by other hands, but the finishing is always left to the artist. The statue completed, there still remained the painter's art to be employed, and for that Nicias was renowned.

Even Winckelmann ("Geschichte der Kunst," buch I. kap. 2), after noting how the ancients were accustomed to dress their statues, adds, "This gave rise to the painting of those parts of the marble statues which represented the clothes, as may be seen in the Diana found at Herculaneum in 1760. The hair is blonde; the draperies white, with a triple border, one of gold, the other of purple, with festoons of flowers, the third plain purple."

There are still traces visible of gilding in the hair of statues. Even the Venus de' Medici has such. And the bored ears speak plainly of earrings.

While the testimony of antiquity is thus explicit, there is the still more convincing testimony of living eyes, which have *seen* this painting on statues. The celebrated Swedish traveller, Akerblad, says, "I am convinced that the practice of colouring marble statues and buildings was much more frequent than is supposed. The second time I visited Athens, I had opportunity of narrowly inspecting the frieze of the Temple of Theseus, and I came away convinced it had been painted." Quatremère de Quincey mentions statues he has seen, and refers especially to the Apollo in the Louvre, made of Pentelic marble, almost all over the naked surfaces of which a trace of red was faintly perceptible. The same with a Diana at Versailles; but he adds, "these traces grow daily fainter." The eyes and mouth of the colossal Pallas de Velletri still retain the violet colour.

Such are a few of the evidences. On examining them, we find

them not only unequivocal in themselves, but complementary of each other. Living testimony, supposing it to be accepted without demur, would not suffice to settle the question of what was the ancient practice ; for it might not unreasonably be argued that these traces of painting on the statues are only evidences of a degenerate taste—like our whitewashing of cathedrals—and no evidences of Greek artists having perpetrated such offences against taste. But when it is seen, by the testimony of ancient writers, such as Plato, Pliny, Plutarch, and Virgil, that the Greek artists *did* colour their statues, the fact of the statues being discovered with traces of colour is explained, while on the other hand this fact helps to clear away all trace of doubt which might linger in a supposed equivocalness in the passages from ancient writers.

G. H. LEWES.

“ As regards archaic sculpture in Greece, we may be considered to have decisive proof from Pausanias and others, that the ancient sacred figures, that were rather venerated as idols than admired for art, were often entirely coloured—flesh and drapery with vermilion, perhaps conventionally and rudely enough, as we find on the archaic vases, the flesh of women painted white, and that of men black.

The marble statues of Ægina, and others, that are works of truly fine art, offer a second form of the application of colour. Here the eyes, lips, draperies, ornaments, and details of arms, have their true local colour, but the monuments themselves only give us the negative evidence with respect to the flesh, that if coloured at all, it must have been less solidly. Unless it were tinged or stained, it is difficult to understand how the effect of the coloured part could have been otherwise than very disagreeable—spotty, patchy, crude, ghastly to the last degree ; but the experiment might be tried.

On the other hand, it is most certain that in the chryselephantine statues, the Minerva of the Parthenon, the Jupiter Olympian, the Juno of Argos, by Phidias, and by Polycletus, the greatest variety of colour was applied throughout—or rather variety of colour was given by the different materials of which these figures were composed, ivory, gold, various coloured woods, stones and gems. But painting or staining in the proper sense of the words, was certainly applied to some portions ; as, for instance, Pausanias states that the robe of Jupiter had lilies painted on it.

The application of colour to the details of the architecture at least, and to portions of the architectonic sculpture, would be absolutely required, to harmonise them with the chief object in the temple itself.

Lastly, as to the flesh of marble statues of the best age, no rule can be deduced for this from any practice that obtained in primitive times, or from chryselephantine works, which seem to have been in designed contrast in the whole of their treatment.

The argument for colour on marble flesh of the best age, from existing remains, so far as I am aware, is equal to zero. But the passage respecting Nicias and Polycleetus, is of very great force. There is no escape from its application to marble statues, nor from the great skill that there was occasion and scope for in the *circumlitio*. Whatever this tinging or colouring may have been, we may be sure that it was so employed as to heighten the purest effects. The edge and sharpness, and smoothness and brilliancy, of the material, cannot have been destroyed by it; rather sobered it may be, but still enhanced. Doubtless it aided the peculiar glories of sculpture, the display of forms, by rendering them more visible—idealised rather than imitated nature, and treated every part under the law of regard to the supreme intention and sentiment of the whole. The same remarks (such as they are) apply to bas-reliefs, which, however, have difficulties of their own.

Vitruvius (vii. 9), after describing the preparation of *minium* or vermilion, goes on to speak of its liability to change colour from the action of direct sunlight, and gives instructions for protecting it; he does not mention the medium employed with the colour, but as it is insoluble, we must assume the use of size, as in other instances, or gum, &c. The wall he is thinking of is apparently stucco.

‘When the wall is painted with vermilion and dry, lay on with a brush (of bristles, a hard or rough brush), Punic wax melted over the fire, and a little tempered with oil; then by means of hot coals in an iron vessel, warm the wall well and make the wax run, and equalize itself; afterwards rub it with a wax candle and clean cloths, as nude marble figures are treated.’

Pliny (xxi. 14) gives the preparation of Punic wax by a process of which the chemical result, according to Dr. Turner, was a soap of twenty parts wax to one of soda. He also (xxxiii. 7)

describes the same process as Vitruvius above, apparently copying him or a common authority. The wax, he says, is applied hot, heated with coals (*admotis gallæ carbonibus*, whatever they may be), and then rubbed with wax candles, and afterwards with clean linen cloths, as marbles also become bright (or shiny), (*sicut et marmora nitescunt*).

Now how much of the treatment thus expressed applies to sculpture? Putting the case most strongly, it might be said,—the whole, and that nothing less than the whole, will accord with the *circumlitio* of statues mentioned elsewhere, and by applying the whole we might connect these notices with those of Plutarch and Pausanias of the employment of vermilion in colouring statues, though these latter go for very little as applicable to the best works of the best time. The construction of the words of both authors imply in strictness that the wax and linen rubbings of statues were applied to the wax previously laid on and heated.

The treatment of statues is referred by Vitruvius specially to the nude; it seems, therefore, to have had connection with a design to assist or heighten the effect of the sculptured nude flesh, as distinguished from drapery, &c. This would be natural enough, though no colours were employed, or not for every part, but if they were we must suppose that Vitruvius has vermilion in his mind leading him to limit his observation. Pliny's expression shows that even assuming colour there is no opaqueness in question.

If a verdict were to be given on this evidence as it stands, I am much disposed to think that it must be in favour of a tinge of vermilion, protected by a brilliant varnish, having been applied to the nude portions of (? some) marble statues in such a manner that both colour and varnish assisted the fine surface and brilliant effect of the lucent marble. So much for this part of the evidence and its bearing on a final decision."—W. W. LLOYD.



MATERIAL EVIDENCE.







## MATERIAL EVIDENCE.

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IN 1836 a committee was appointed by the Royal Institute of British Architects, to examine the Elgin Marbles in the British Museum, in order to ascertain whether any evidences remained as to the employment of colour in the decoration of the architecture or sculpture.\*

This committee consisted of Mr. Hamilton, Sir Richard Westmacott, Sir Charles L. Eastlake, R.A., Mr. Cockerell, R.A., Dr. Faraday, and Messrs. Angell, Donaldson, and Scoles. The committee found on several architectural fragments from the Erectheum and the Propylae of Athens, traces of ornaments which had been engraved with a tool on the surface of the marble, and also verified a difference of texture in the parts occupied by the coloured surface from the ground, but were unable to decide "whether the parts now smooth and rough were originally in that state, or whether the part now rough has become so in consequence of the action of the atmosphere upon it, the smooth part having been protected from that action by gilding or colour."

No traces of colour were discovered on any of the figures of the bas-reliefs, metopes, or sculptures of the pediments, but it was stated to the committee by Mr. Sarti, the modeller, who was engaged in taking moulds of the whole series of the Elgin Marbles belonging to the Parthenon, "that the whole surface of the marbles had been twice washed over with soap leys, subsequently to their having been moulded on former occasions, as that or some other strong acid is necessary for the purpose of removing the soap which is originally put on the surface in order to detach the plaster of the mould; Dr. Faraday was of opinion that this circumstance was of itself sufficient to have removed every vestige of colour, which might have existed originally on the surface of the marble."

A letter was read to the committee, from Mr. Bracebridge,

\* Extracted from the report of the committee, published in the Transactions of the Royal Institute of British Artists, Vol. I. Part II. 1842.

“forwarding a memorandum of colours and patterns from the Erectheum; they are drawn from the northern portico of that conjoint temple of Minerva Polias, Pandrosus, and Erectheus, so well known in the Acropolis. This side of the temple, being so well sheltered from the sea breeze, has preserved its sculptured ornaments as fresh and sharp as if lately finished; and the columns of this portico, being fluted with capitals elaborately worked and well-sheltered, have retained remains of colour. At the top of the flutings especially, a thin coat of slate-coloured paint is visible, at other points yellow and red colour may be traced; but the remaining pieces are so small and the colours so much faded, as to leave the subject in dispute; this being alone certain that there was once colour carefully applied (at all events, to the entaglio parts of the relief or concave parts of the capitals, &c.), and that this colour was of various shades; the protuberant part of the work retains no colour. The probability that blue, red, and yellow were used is very strong.”

Mr. Bracebridge further states, that “in the winter of 1835-6, an excavation was made to the depth of twenty-five feet, at the south-east angle of the Parthenon; here remains were found of huge blocks of marble fresh from the quarries, chippings, &c. &c.; and below these, fragments of vessels, pottery, and burnt wood. No one who saw these could doubt that a level was dug down to below that where the workmen of the Parthenon had thrown their refuse marble, in fact the level of the old Hecatompedon, of which possibly the burnt wood may have been the remains.

“Here were found *many* pieces of marble, and among these fragments parts of triglyphs, of fluted columns, and of statues, particularly a female head (the hair is nearly the costume of the present day).

“These three last-mentioned fragments were painted with the brightest red, blue, and yellow, or rather vermilion, ultramarine, and straw-colour, which last may have faded in the earth.

“These curious specimens are carefully preserved in the Acropolis, but much fear is entertained of their retaining the brightness of their highly contrasted colours for any length of time. The colours are laid on in thick coats. The female face had the eyes and eyebrows painted. When we consider the brilliancy of Pentelic marble when fresh worked, there appears a reason for using colours beyond that of imitating the usages of Attica, in more ancient temples, namely, that the minutiae of the work in many parts would have been lost to the eye amidst the general brilliancy.”

The committee finally concluded that "Upon a consideration of all the facts in the preceding minutes, it appears to the committee, that there remain no indications of colour artificially applied upon the surface of the statues and bas-reliefs, that is upon the historical sculpture. That, according to Dr. Faraday's opinion, those portions of the marbles, which, from the tone and surface might be supposed to be the result of colour applied thereon, are the original surface of the marble, stained by the atmosphere, the presence of iron in the marble, or by some such natural cause. That some of the architectural fragments present indisputable traces of tone, indicative of regular architectural ornaments, and the outlines of such ornaments are distinctly traceable, being marked with a sharp instrument on the surface of the marble.

"The committee cannot positively state, from the appearance of the marble, that such tones have been produced by colour, as they think that none of the colour itself remains, but that the indication of tone results from the mere variation of surface. Judging, however, from the information contained in Mr. Bracebridge's communication, there appears no reason to doubt that colour has been applied. This is confirmed by the portions of coatings brought from Athens by Mr. Donaldson, and analysed by Dr. Faraday, who has detected frit, or vitreous substance, and carbonate of copper, mixed with wax, and a fragrant gum. This analysis proves that the surface of the shafts of the columns of the Theseum and other parts of the edifices from which these coatings were taken, were covered with a coloured coating. The glass eyes also of the Ionic capitals of the tetrastyle portico of the Acropolis, at Athens, prove, that various materials were employed by the Athenians in the decoration of the exterior of their marble buildings.

"But although the statues and bas-reliefs of the Parthenon, at least those portions of them preserved in the Elgin Collection, do not afford any evidence of the use of colour, yet there is a constant repetition of small circular holes in the horses' heads and manes, and in one hand of each rider, showing that there had been originally bridles and straps to the horses, either of metal, leather, or some other similar substance. Similar holes are perceptible in the statue, No. 94 (in red), of Proserpine, one of the two female figures of the eastern tympanum of the Parthenon, called also the Seasons or the Hours; they are in the arm, just above the wrist, apparently for the purpose of attaching bracelets, and in the shoulders at the junction of the drapery, as though a metal rosette

had been affixed there. On the neck of one of the Fates, No. 97 (in red), are also two holes, which seem to have been for a necklace. In the back of the torso of Victory, No. 96 (in red), are large holes, in which it is supposed bronze wings were fastened. No. 101 (in red) is a fragment of the upper part of the head\* of Minerva; the sockets of the eyes are hollow, and were evidently filled with metal or with coloured stones, and holes remain in the upper part of the head, affording a presumption that there was originally a bronze helmet attached to the marble. The angles of the ægis of No. 102 (in red), which is a fragment of the statue of Minerva, one of the principal figures of the western pediment, are drilled with holes, by which the metallic serpents were attached, and in the centre a head of the Gorgon."

(Signed)

"THOS. L. DONALDSON, Hon. Sec."

The following is the report which was laid before the committee, from Dr. Faraday, upon some portions of coatings of marble taken from several buildings, at Athens, by Professor Donaldson.

"MY DEAR SIR,

"I return you the box, with the remains of the samples.

"A. Portion of coating taken from the antæ of the Propylæum.

"The blue produced by carbonate of copper: wax being mingled with the colour.

"B. Portion of coating taken from the soffits of the mutules of the Theseum.

"The blue is a frit or vitreous substance coloured by copper. Wax is present here.

"C. Portion of coating taken from the columns of the Theseum.

"I am doubtful about this surface. I do not find wax or a mineral colour, unless it be one due to a small portion of iron. A fragrant gum appears to be present in some pieces, and a combustible substance in all. Perhaps some vegetable substance has been used.

\* "This fragment alone may perhaps be considered as an exception to the previous statement, that there are no evidences of colour on the statues or figures of the Parthenon. The hair appears to have a red tint, which becomes distinctly apparent upon the application of water."—*Note of the Committee.*

“D. Portions of coatings from the caissons or lacunaria of the Theseum.

“The blue is a copper frit, or glass, with wax.

“E. Portions of coating from the northern wing of the Propylaea.

“The colour a carbonate of copper. Wax is present.

“F. Ditto, ditto (north wing of the Propylaea) as E.

“I also return you the drawings and letter.

“Every truly yours,

(Signed)

“M. FARADAY.

“T. L. Donaldson, Esq., &c.”





ON

THE ORIGIN OF POLYCHROMY IN  
ARCHITECTURE.



By PROFESSOR SEMPER.



## ORIGIN OF POLYCHROMY IN ARCHITECTURE.\*



FROM the time of antiquity to our own day men have sought to discover or invent the probable origin of the various systems of architecture. Besides the well known *hut* of Vitruvius, and the no less celebrated *grotto* of the Ichthyophagi or fish-eating races, (the supposed type of the Egyptian temples), the tent of the Nomad, or wandering races, occupies a very important place in our theories of the origin of styles. In the catenary formed by the fall of the drapery of a Mongol tent, has been recognised the type of Chinese and Tartar architecture.

But no notice has been taken of the much more evident and less doubtful influence, which drapery itself, in its quality of a vertical wall, or partition, has exercised on certain architectural forms. Nevertheless it is the *motif* which I venture to cite, as the one on which ancient art has been principally founded.

It is well known that the nascent taste for the beautiful among those races which are in a state of social infancy, is first exercised in the manufacture of coarse tissues, which serve either as beds or as partitions.

The art of dress is less ancient than that of the manufacture of stuffs, as several examples of people to whom clothing is unknown, and who nevertheless possess an industry, more or less developed, in tissues and embroidery, may satisfy us.

The earliest woven work would seem to be the *fence*, that is, branches of trees interlaced, serving the purpose of enclosure and of partition. The most savage tribes are acquainted with this method of construction. Thus the employment of coarse tissue or woven work (which was a mere fence) as a means of securing privacy from the world outside certainly far preceded the constructed wall of stone, or of any other material; this last only became necessary at a much later period, for requirements which in their nature bear no relation whatever to space and its subdivision. The stone wall was made for greater security, longer duration, and to serve as a support for heaps of various materials and stores; in fine, for purposes foreign to the original idea; viz., that of the separation of space, and it is most important to remark, that *wherever the secondary motives did not exist, woven fabrics maintained, almost without exception, especially in southern lands, their ancient office, that of the ostensible separation of space*; and even in cases where the construction of solid walls became necessary, these last are but the internal and unseen scaffolding of the true and legitimate

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representatives of division, that is to say, of drapery richly varied with ornamental work, interlacings, and colours.

The difference which exists between the ostensible and principal separation, and the constructed separation, is expressed in ancient and modern languages by terms more or less significative.

In the Latin tongue, a distinction is made between *paries* and *murus*.

The Germans, in the word *wand* (of the same root with *gewand*, which means texture) recal still more directly the ancient origin and type of a wall.

New inventions soon led to different methods of replacing the primitive drapery, and every art was successively called in to contribute its part to these innovations, which may have been brought about by various reasons; such, for example, as the desire for longer endurance, for the sake of cleanliness, economy, comfort, distinction, coolness, heat, &c.

One of the most ancient and most general methods of replacing the use of drapery or tapestry is the coat of stucco or of plaster, furnished by the masons who built the walls.

Another very ancient method of replacing the original tapestry is, that of wooden panels, with which the wall was covered internally. That which proves the antiquity of this custom is, that in several ancient languages the expression which is only properly applicable to panels of wood, serves indifferently to signify every kind of flat surface (*table*) in wood, metal, ivory, or any other material.

It is thus we must explain the Greek expression *πιναξ*, (in Latin *tabula*) as a painting on wood, or also on marble, baked clay, &c. Plates of burnt clay, thin but of large circumference, were equally called "*πινακες*."

The style of mural painting at Pompeii is only to be understood by the same ancient custom of covering and inlaying the walls which they reproduced in appearance by divisions and painted draperies. See Vitruvius, on this point, in the chapter on Plastering. Wiegmann has erred in attributing the same system of ancient painting to purely technic causes.

The Ceramic art was, in its turn, called on as a means of replacing drapery. It is certain that potter's clay painted, and even glazed, served, at a very remote period, as a covering for walls. It may even be admitted, that the employment of the potter's art on the surface of walls, preceded the manufacture of burnt bricks, and that the invention of burning bricks was the result of the custom cited above.

The mural incrustations in baked clay were the precursors of brick masonry; in the same manner as the Assyrian slabs may be considered to be the forerunners of constructions in hewn stone. We shall return again to this subject.

Among the various methods of replacing the use of drapery, should be also mentioned those furnished by metallurgic processes. Vestiges of metallic coverings on walls have been found on the oldest existing monuments; and the most ancient annals of mankind are filled with recitals of buildings resplendent with gold and silver, bronze and tin respectively.

As an invention of relatively recent date, may be cited lastly, the use of slabs of marble or stone, granite, alabaster, &c., notwithstanding that we find traces of this custom, but as it were already effaced, on the most ancient monuments of the earth. (*See farther on*).

In all the cases we have named, *the character of the substitute followed*

that of its original type, and the painting and sculpture, or rather the two united, on wood, plaster, burnt clay, metal, stone, or ivory, was—and traditionally continued to be—an imitation, more or less faithful, of the embroideries or variegated interlacings which ornamented the antique wall-coverings.

It may be asserted that the entire system of decoration, with the art of painting and sculpture in relief, up to the period of its highest application, which is that of the tympanums of the pediments in the Greek temples, proceeded from the manufactures of the Assyrian weavers and dyers; or rather from their predecessors in human inventions. In any case, it was the Assyrians—next to the Chinese—who appear to have preserved most faithfully the antique type, even in its application to a different material. We will enter a little more explicitly on this subject.

### THE ASSYRIANS.

The ancient writers often mention and praise the Assyrian tissues for the art employed in their manufacture; for the splendour and harmony of their colours, and the richness of the fanciful compositions with which they were embroidered. The mystical figures of bucentaurs, lions, dragons, unicorns, and other monsters, which the authors describe, are absolutely identical with those which we see on the bas-reliefs of Nimroud and Khorsabad. But this identity was not in the subjects alone. There is no doubt that the manner of treatment, the *style* of these subjects, was identical with that of the objects embroidered on the tissues, which ancient authors have described.

On examining somewhat attentively the Assyrian sculptures, it is easy to satisfy oneself that the art of the Assyrian sculptor moved within limits traceable from its origin, viz., embroidered work, allowance being made for certain alterations of style, caused by the requirements of a new material.

One perceives in these Assyrian sculptures, the desire on the artist's part of an attention to the truth of Nature, but that he has been hindered in his task, not—as with the Egyptians—by a regular hieroglyphic system and hieratical laws, but rather by the caprices of a method difficult, and indeed foreign to sculpture, the influence of which was still strongly felt. Thus the sculpture of this people kept itself within the bounds of a very low and flat relief, exactly similar to that of some productions of Chinese woven work, seen in the Great Exhibition of 1851, which possessed peculiar interest in the history of Art, inasmuch as they exhibited the transition of the high woof into polychromic bas-relief.

The Assyrian figures, without being embalmed mummies like those of Egypt, show, nevertheless, much stiffness and irregularity; they appear as if they were imprisoned and confined within an invisible canvas. Their contours are, so to speak, tacked in with threads. One recognises in them an awkwardness and hardness arising from the contest of the artist with a material foreign to the style: whilst the Egyptian bas-reliefs evince an original, canonical, and voluntary stiffness. I am tempted to believe that all those slabs of alabaster from Assyria, with their religious, warlike, and domestic scenes, are nothing more than exact copies in stone, after originals in tissues, at that time celebrated and executed by good native artists, who worked on that material only, whilst they employed mere workmen

to transfer the originals on to stone, as well as the material would allow, which explains the difference between the design and execution which these works betray. This same character is also found on the Assyrian paintings.

It is not to be doubted that the true tapestries were employed with profusion, side by side with the stereotyped copies: and probably these last were often covered with the originals, on the occasion of solemn ceremonies, &c., and that they were only exposed during the intervals between the *fêtes*, &c. We observe the same thing at this day in the Catholic churches, where this ancient custom, with many others, is strictly preserved. The inscriptions and their application in bands, indicate the same origin. Does it not appear as if the cuneiform characters were invented and designed for execution in needlework? In fine, the simplicity of the system of paving of the rooms, otherwise so richly ornamented, goes to prove that they were originally covered with tapestry. It is only the slabs which form the cills of the doors on which tapestry could not be placed, which indeed form an exception, being ornamented with engraved work, in imitation of tapestry. (*See Layard.*) It is thus that these last became also the types of parquetry work in mosaic.

Up to the present point, we have only considered what relates to the representations found on the Assyrian slabs. But these, in themselves, give us still more cause for reflection, and singularly justify our assertion of the importance, in an architectural point of view, of the coverings of walls.

The principle of panelling constructed work shows itself here in all its primitive simplicity. We know that almost all the lower portions of walls, within and without, were covered with thin slabs of alabaster or basalt. The same principle under another form, obtained in the upper portions of the walls; here, the walls of unbaked brick were inlaid with glazed bricks; but the plan pursued by the Assyrians in executing this incrustation differs greatly from that which we observe elsewhere, and from what we pursue at the present day.

The Assyrian bricks are only glazed on the external side, and the ornaments and other subjects which were figured on them in the glazing, bear no relation to the construction, so that the ornamental lines cross the joints of the bricks irregularly.

The enamel is very fusible and the bricks but slightly burnt, evidently with the sole intention of fixing the glazing on them, which induces me to conjecture, that the use of glazed pottery preceded and prepared the way for that of baked bricks, and that the art of pottery was already far advanced before the introduction of burnt brick-work. Other indications which would take too long to specify here, have proved to me, that the bricks received their coating placed in a horizontal position: First, they were ranged in the order which they would take when in their place, they then traced the design formed on this arrangement of unburnt bricks; next, they covered with these painted bricks—observing still the same order—the interior of the room; and lastly, they placed a fire in the room to fix the varnish which covered the walls.\*

It results, from what I have observed, that the decoration of the wall did not depend upon the construction of the same, even when baked and glazed bricks were employed.

\* The same method is to be found in some old buildings in Scotland.



The *constructive system*—after the manner of mosaic—of *decoration in enamelled bricks is a later invention*, probably a Roman one. The enamelled Assyrian bricks, should be regarded as a mural incrustation, as a covering absolutely independent of the wall itself, and even of the terra-cotta slab or tile, on which it was directly fixed.

### THE PERSIANS.

The Assyrian system of panelling the lower portions of their buildings with slabs of alabaster, may be considered as the first step towards construction in hewn stone, and towards the introduction of the "*coupe de pierre*" into the number of architectural and ornamental elements.

*It is only in the terraces, and the sub-basements of buildings, in the primitive ages of art, that hewn stone and its construction appeared to the eye.* These parts of the buildings were the mason's oldest domain.

The Persian monuments of Murgaub and Istakir, afford us the means of observing the second step which decorative art made towards the principle of construction. They were composed, like their models in Assyria, of unbaked bricks, of which nothing remains, whilst however, the direction of the walls is still indicated by marble pillars, which originally served to strengthen the angles of the walls, and by the jambs of doors and windows and by niches, with which the walls were ornamented.

All these parts were ornamented in the Assyrian manner, and testify to the principles of which we have been speaking. But here we have no longer slabs, but hewn masses of stone of enormous dimensions, frequently monoliths. Nevertheless, in spite of their solidity, they betray their type, in a most remarkable manner, inasmuch as they form a kind of framework hollowed out internally to receive the mass of masonry in unbaked brick, which they were designed to cover and to protect, and which, in the interspaces of the pillars and jambs above-named, were covered with slabs of marble, or more probably, with panels of cypress-wood, covered in turn by plates of gold and silver, or it may be also with richly embroidered stuffs.

### THE EGYPTIANS.

The theocratic system of the Egyptians, although its origin extends beyond the horizon of history and even of tradition, is not the less based on the ruins of a social state more ancient still, and much more natural. The founders of this system, have altered the primitive style of architectural decoration in petrifying it; that is to say, in making it a style eminently adapted for stone constructions and monuments.

But amidst the hieroglyphical symbols may still be recognised the traces of its origin, obscure it is true, but unmistakeable. It has been observed by travellers in Egypt, that Egyptian art bears quite a different character in the sepulchral tombs, to that which is observed on the great temples and palace temples of the kings. It is that in these sepulchral chambers, art could move somewhat more freely than it was permitted to do in those grand monumental edifices, which were raised under the immediate influence of the priesthood.

Now it has been proved that in all the tombs, the ancient method of draping the walls, or rather of decorating them in the style of tapestry,

was apparent in its greatest simplicity. It is observable, first in the character of the ornaments themselves, which consist of interlacings and gracefully varied knots, whilst these decorations borrowed from the weaver's art, are almost banished from the temples and are replaced by symbolic figures and ornament. It may be recognised, in the second place, by the fact, that the paintings in the sepulchral tombs are generally enclosed with borders, as if to indicate that they represent suspended tapestry.

Although this primitive type shows itself less positively in the temples, indications are nevertheless not wanting which remind us of it.

The contemporary artists of the French expedition have already observed—and their discovery has been since then verified—that the monuments of Egypt, including even those executed in granite, have been covered with a complete coating of colour and varnish, over the *entire surface*. That indeed might be expected, for the hewn stonework of the Egyptian constructions, in spite of the neatness of its workmanship, is not laid in regular courses, which tends to prove that this irregularity, which contrasts with the symmetrical system of the decoration on it, was hidden beneath a coating which covered the whole mass.

These monuments exhibit then the third transition step towards regular construction in hewn stone.

The construction, though massive and real, is always hidden, and does not enter yet as an ornamental motive in the compositions of the architect.

It is worthy of observation, that one of the mouldings of Egyptian architecture seems to be explained by the same ancient custom of encrusting brick buildings with stone slabs, which we have remarked on the Assyrian monuments. I allude to the torus moulding which encloses the external walls of edifices. It served to hide the joints of the slabs which covered the internal work.

It is certain that the most ancient monuments in Egypt were constructed in unbaked bricks, which must have been covered with stone slabs in the manner above indicated. The Pyramids afford us very remarkable examples of this system of panelling, which is found still perfect in the sepulchral chambers contained in them, and the traces of which are still visible on the exterior. The same observation applies to the Palace of Osirtesen at Karnak, the walls of which are panelled with slabs of polished red granite, bearing the traces of a transparent coating with which they were covered.

## THE CHINESE.

China is a country where architecture has remained stationary from its early birth, and, consequently, the elementary motives of it are most distinctly preserved; they are placed side by side, without being conjoined by a general ruling idea. The external surface of the wall is still quite independent of the wall itself, and indeed is most frequently movable. The wall bears its own burden alone, and has only in view the filling up of the intervals between the wooden columns which support the third elementary want, (*i. e.*) the roof. The wall is only a screen, more or less solidly executed than others, constructed in slight brick work, covered externally with painted stucco decoration or interlaced cane work, and internally with tapestry, or its substitute, painted paper. The internal

divisions are formed by screens of the same description, and by drapery hung from the ceiling. The design of the ornament, painted and carved upon them and throughout the building, is founded on the same principle of interlacings and cane trellis-work, more or less intricate, and hardly to be recognised through the oddities of successive fashions. A polychromy, rich and brilliant, prevails, which has not been considered with that attention which it deserves in its relation with the ancient style of polychromy.

### THE INDIANS.

The monuments of Oriental India, bear the impress of a settled civilisation, at least of the tertiary period. They are comparatively modern in principle and in date; but they furnish us, nevertheless, with very important hints on the history of polychromy.

The frequent use of stucco, which is better made in India than anywhere else, recalls the system of the ancients, in covering their fine hewn stonework with a very fine and hard incrustation of stucco.

The Indian edifices constitute, as it were, but a scaffolding from which to hang the drapery forming divisions of their spaces, as in China, and as formerly in Assyria, Egypt, and Greece.

### THE JEWS AND PHENICIANS.

At present we have only mentioned existing examples; but the ancient writings furnish us with other no less important matter. The description of the celebrated Ark of Moses, and of the Tabernacle, taken with that of the Temple of David, contains a complete history of polychromy. This curious recital of Jewish antiquities presents us with a progressive development of that elementary principle of architecture which I term "the Enclosure."

The documents and chronicles of other nations furnish us with parallels to what is contained in the holy writings. The Temple of the Slaves at Mechlenburg, according to the description of Baron von Rumohr, on the faith of ancient chroniclers; was constructed in the Oriental fashion, and richly ornamented with tapestry and gilded wood work.

### THE GREEKS.

We now come to the Greeks. Hellenic art must have partaken of the composite character which is manifested in Hellenism generally, and which is so well expressed in the Grecian mythology.

As the beautiful marble, which forms the cliffs and coasts of Greece, notwithstanding its homogeneous transformation, betrays by veins, by fossils, and other indications, its sedimentary origin, so Hellenism, although it may appear homogeneous, and cast—so to speak—in one single jet, betrays, nevertheless, its secondary origin, and the sediment which constitutes its material groundwork.

It would be important to follow up these vestiges of rudimentary Hellenism, since they might enlighten us on certain phenomena in Hellenic art, which have been up to the present time inexplicable without them.

This applies especially to the polychromy of Greek edifices. Much yet

remains to be done in this department of Art History, which has been generally discussed either by learned men but no artists, or artists with little learning. The vestiges of rudimentary Hellenism of which I speak, wherever visible, present the same features that we meet with in Assyria, Egypt, and China, and even among savage races; but it would appear that the Greeks, prior to treating in their peculiar manner those principles of art which they inherited, had partly forgotten their origin and their material or hieratical meaning. Thus, only, could they have had the mind free, and ready to commence them anew with an artistic and poetical feeling.

Exactly the same thing occurred in their mythology, which is only poetic fiction based on traditions and fables, partly native, partly foreign, the primitive meaning of which was no longer understood by the poets, who formed them into the groundwork of their cosmogony.

The system of Greek polychromy is the richest of all those of antiquity; but it is, apparently, based neither on a principle of construction or material as among the Assyrians, nor on a hierarchical principle as among the Egyptians. The most striking oppositions of principle are found united in it and harmonised, a more artistic and elevated, but less positive conception. Nevertheless, this applies only to the edifices of a period when art was in a state of high development among them, since the ancient Doric system appears to have had much in common with Egyptian art before it was penetrated by Ionian influence, which depended rather on Asiatic traditions.

I am convinced that the style of Doric polychromy was essentially different to that of the Ionic, which was, notwithstanding, of equal antiquity and originality.

Doric polychromy was based on the Egyptian system, whilst that of Ionia was based on Asiatic models. The first named was lapidary; the colours were detached on a whitish or yellowish ground; there was no gilding, and the use of blue was common, that being the holy colour of the Egyptians (a turquoise blue), the symbolic colour of the priesthood and aristocracy.

The second was more primitive in its nature and recalled more directly the elementary motive of *tapestry* and *embroidery*. The ground was generally of a rather deep colour, blue or red, even in the constructive portions, such as the shafts of columns, architraves, &c., a good deal of gilding and sea-green (*prasinum*) was used; the favourite colour of the Assyrians, the symbolic colour of absolutism and of democracy. The green is still now the holy colour of the successors of the Assyrians in Asia.

This difference of style, analogically observable in the music of these two races, explains the divergent investigations made on the temples of Sicily, and those of Athens. The monuments of Athens, Doric in their general appearance partook, nevertheless, a good deal of the Ionic character. The Ionic mind had penetrated Doric matter, and colour being the least material was that which the Ionian sentiment most easily mastered.

It would be a difficult but very interesting task to unravel the religious and political signification of certain colours in ancient times. We know that red, blue, turquoise, and sea-green, were the four colours by which the factions of the circus distinguished themselves. These were not capriciously chosen, each faction having adopted that colour, the symbolic and traditional meaning of which agreed with the political principles professed by it.



Traces of the antique system of covering construction with tables of wood, plates of metal, or slabs of stone, representing tapestry-work, may still be perceived in the Grecian monuments, for those parts of them which were destined to be ornamented with historical paintings or painted sculpture, are executed in the Assyrian fashion; as, for example, the tympanums of the pediments, the metopes, the friezes, the parts between the columns, and round the walls of the "cella." It is thus that Grecian monuments show us the fourth path which architecture made towards stone style.

The constructive parts of the building, that is to say, those parts which constituted the entablature of the roof, and its supports, *the columns*, were painted with the colour of the Greek vases, viz., a very transparent and vaporous brown-red. The walls, inclusive of the "*antæ*," which formed only projecting parts of the walls, were of a blue, which was broken by black and a little yellow, and not very dark. This colour formed also the ground for most of the sculptures, except the metopes, which I believe had red grounds. The red in the ornamented mouldings was a very bright vermilion, differing from the red of the ground by colour and treatment.

The same is the case for the blue, which, in the ornamented mouldings, is deeper than on the large surfaces, and tinted in different shades. The *oves*, or eggs, for instance, were blue, with a darker blue tint around.

The green is a colour which occurs frequently on the Athenian temples, so on the leaves on the moulding which runs under the frieze of the opisthodomus of the temple of Theseus, and between the red and blue leaves of the capitals of the *antæ*. The same sea-green occurs on the draperies of some sculptured figures.

The enamels of wax were frequently covered with washes of thinner colours. This has not been remarked by our restorers of antique polychromy, but is nevertheless necessary for giving softness to the general effect.

The ornaments, as I have just observed, are placed in pieces and soldered together; the solderings forming fillets slightly elevated from the surface and of another colour. I cannot say whether in gold, black, or even in some parts white. I have, for my own part, adopted the hypothesis that it was gold in the Athenian temples, but not on those of Sicily where a strict Doric character prevailed.

I have not found many traces of colour on the Ionic temple of Minerva Polias, and cannot say if the red, which I found on the columns of the Northern Portico, belonged to the ancient colouring, or was of more recent date. On the plate, in my work, which gives a panel of the temple of Theseus, is seen the design of a row of pearls, with a double range of disks.

I can guarantee the exactitude of my observations, although this extreme richness and smallness of detail in an object destined to be seen from a distance may well astonish us.

I have traced every mark on the stones themselves: and, moreover, subjects of this kind are not capable of being invented; indeed it would be a great compliment to suppose me capable of inventing these designs, which I consider charming.

In the portion which I have found in the wall with the niche (see my work), these details are not to be seen. I have also discovered traces of colour, very much effaced, on the small choragic Monument of Lysicrates, which I have carefully examined. It appears that on the ornament which surmounts

the roof, there was a variety of blue and red, and that the acanthus leaves were coloured green. The tripod was not placed upon this ornament, but round it, the feet resting on the three volutes which descend from the roof, analogously to the marble tripods which are often met with in various museums of antiquities.

I will not speak of the colours of the Parthenon, which are not so well preserved as those on the Temple of Theseus, but the traces of ornament which decorated that temple are seen by the incisions still remaining. It would appear that the system of ornament there applied was similar to that on the Temple of Theseus.

Some years after my sojourn at Athens, portions of this building have been excavated, with the colours very well preserved; as well as other fragments of architecture which belong to the old Hecatompædon (destroyed by the Persians) covered with painted stucco.

I have not found very decided traces of the colours employed on the Temple of Minerva Polias; the columns appear to have been red, as at the Temple of Theseus. The ceiling of the Temple of the Caryatides had painted frets and orvolos, which I have traced; but the colour was no longer visible. Traces of painted ornaments are to be found also on the Tower of the Winds. I have not been able to get a close view of them.

As regards the sculptures, I have found some regularly encrusted with colour. I have found green (*prasinum*) on the tunic of one of the seated goddesses, on the frieze of the Temple of Theseus: another figure was clad in a vestment of a deep rose colour. The Caryatides of the Erectheum had blue tunics. We may see that, even on the one in the British Museum.

Mr. Bracebridge has described statues which were excavated in his presence near the Parthenon with flesh tints and painted eyes. The figures of the pediment of the Temple at Egina still retain traces of the colours with which they were decorated. The same observation applies to the metopes of the temple at Selinuntum, now at Palermo. Curious fragments of painted architecture may also be seen at the museums of Syracuse and Girgenti.

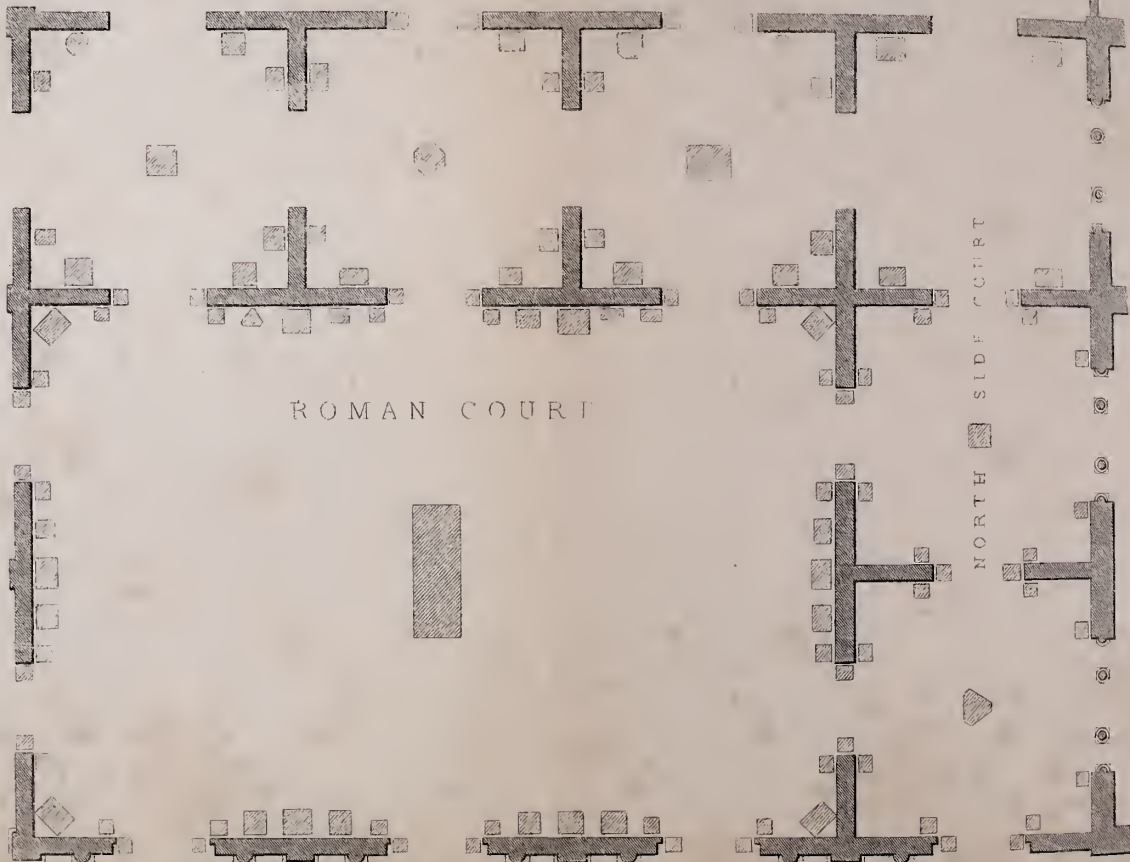
The Romans painted their white marbles, like the Greeks. The three columns of the Jupiter Stator in the Roman Forum are painted red on that portion which has remained a long while buried.

The Trajan Column, which I have examined, retains traces of colour and gilding: the entire column had been once covered with a rather thick coating of colour, in which I recognised green, blue, and yellow; but it is probable that this last was the remains of the gilding.





PLAN OF THE ROMAN COURT



ROMAN COURT

NORTH SIDE COURT



