

"The introduction of Herakles to Olympus" Pediment Sculpture from an early unnamed Temple on the Acropolis. The reconstruction by Rudolf Heberdey.



WEST GABLE OF  
THE TEMPLE OF ZEUS, OLYMPIA.

## ARCHITECTURAL POLYCHROMY

BY LEON V. SOLON

### PART VI

*Polychrome Treatment of Architectural Sculpture*

THE subjection of Greek aesthetic initiative to arbitrary ruling, is not the aim of this brief and elementary treatise; it attempts merely to formulate general principles which may assure safe procedure in the practice of architectural polychromy. In choosing examples that demonstrate the application of theories formulated, Greek architecture exclusively has been drawn upon; for the reason previously proffered, that it alone furnishes solutions to the major problems. The Greeks were the only race that apparently systematically controlled the vagaries of color activity to architectonic requirements. Far from wishing to discipline the Greeks, an inadequate attempt is made to recognize their mastery in architectural polychromy, in that spirit in which their preëminence is universally conceded in architecture and sculpture. They have left corroborative evidence proving that in this aesthetic activity they were craftsmen of the highest order. Their intuitive and precise appraisal of relative values in all factors of effect, both physical and aesthetic, enabled them to assure results of artistic quality even with media of the most erratic nature.

With the introduction of color in an architectural scheme, conditions arise which must of necessity be anticipated and controlled; these proceed chiefly from properties of an active character which are inherent in color. In attempting to devel-

op decorative methods and procedure, it is essential that certain color phenomena be recognized, and their architectonic reactions recorded. In the contemplation of a work of art, it is not possible to experience the full content of intellectual enjoyment, if certain elementary physical laws are therein disregarded. Consequently, in the study of architectural polychromy, this consideration of color phenomena is imperative if practice is to be developed upon a logical foundation. The importance of recognizing certain natural laws, as a fundamental necessity for the realization of beauty in the arts, is self-apparent; it entails no jeopardy of those artistic prerogatives so fiercely upheld by the superficial critic. Were we to see a sculptured figure in which the laws of gravity or poise had been ignored, our predominant feeling must be one of intense regret, whatever its technical excellence. The same feeling would overwhelm us before a painting in which brilliant artistry declares its independence in defiance of the laws of optics. As the majority of architects in our day do not possess the abnormal aesthetic intuition of the early Greeks, it is necessary to construct little rafts of precept on which to embark, when venturing upon uncharted waters in artistic practice. With a comprehension of color activity in architecture, such as the Greeks obviously possessed, it, was as impossible for them to do irrespon-

REARRANGEMENT OF WESTERN PEDIMENT  
GROUP — TEMPLE OF ZEUS, OLYMPIA



sible things with pigment, as it would have been to carve a figure out of plumb. When artistic intuition is rare, rather than general, safety is found in basic principles.

As sculpture will, in all probability, play an important part in the future development of architectural polychromy in this country, a few brief descriptions will not be out of place in concluding this treatise, giving a general idea of the manner in which the color treatment of Greek architectural sculpture conformed to the polychromy of the structure it adorned. Though the number of surviving examples in full polychrome is unfortunately nil, owing to the disintegration of pigments upon standing structures, it is, nevertheless, possible to realize a fairly definite impression from the reconstruction of exhumed fragments of the combined effect of sculpture and architecture adorned with color, during that period in which architectural polychromy was developed to its maximum.

In reviewing the various progressive stages of Greek sculptural expression, with the aim to establish some connection between plastic quality and polychrome treatment, a definite relation is very apparent. In the earlier phases of Greek sculptural expression, the decora-

tive spirit was the main actuating impulse; during that period color is a major factor in effect. With the advent of the maturer phases of art-expression during the fourth century, beauty in the human form came to be visualized from the individualistic angle, rather than from the impersonal or decorative. In the sixth and fifth centuries color was not a medium for simulating an illusion of life; it was used to augment decorative quality. When that quality as an aesthetic objective was superseded in the process of artistic evolution, the necessity for color in its original function naturally decreased.

The examples which we reproduce are of the VI and V centuries B.C.; these have a more direct relation to our subject than those of the later period. The colors found upon sculptures of those centuries are identical with those found upon contemporary architecture; the component elements of the palette have already been enumerated. There was no apparent desire to make the coloring of detail correspond to normal tones in the figures of the pediment groups or metopes. The decorative balance and distribution of colors throughout the group was apparently a consideration of far greater importance than realistic effect. Dark blue is found,



FIG. A. POLYCHROME FIGURE,  
AKROPOLIS MUSEUM.

decorating the hair and beard of figures in prominent positions, though black and brown appear on other details in the composition; the iris of the eye is often painted red. The pediment group was primarily a decorative filling of an architectural space, necessarily subordinate in effect to the treatment of its structural setting; the treatment of its architectural surroundings was regulated by considerations entirely foreign to any that actuated the sculptor. The decorative function of the pediment sculpture was to impart a specific ornamental value, or interest, to an architectural unit of secondary structural importance.

Historical data, and the evidence of examples, point to the coloring and painting of sculpture being done by then who practiced that craft independently of sculpture. It is probable that this work was done by the same men who colored the building, and that the traditions

of the craft, which played so important a part in architectural polychromy, influenced to a great extent the sculpture coloring. The same methods of color application and tone development, are found upon the sculptures which were practiced upon architectural detail. Patterns upon draperies or accessories are often slightly countersunk, with surfaces convexly or concavely treated, where tone quality was

desirable. The necessity for color separation and color alternation was anticipated in the carving of detail by the sculptor, who, being surrounded by a host of polychromy examples, readily appreciated the importance of such methods to the ultimate effect. There is no evidence of any divergence of view in color technique between the sculptor and the builder during the full polychrome period; architectural quality decided questions of color technique, to which sculpture in its contributory capacity conformed.

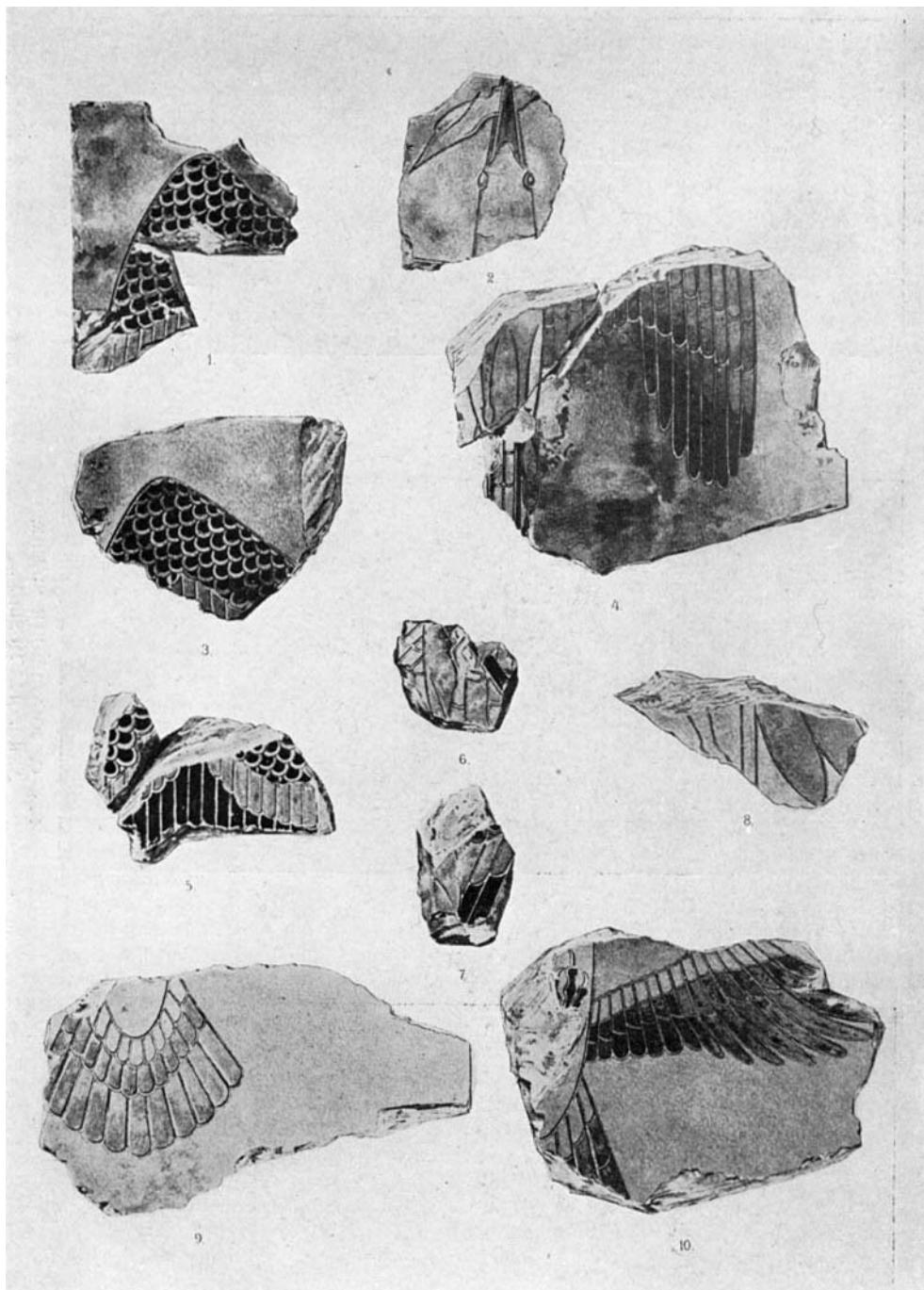
On page 95, Part II, Weigand's reconstruction of one of the temples of the Akropolis is reproduced. The colors were brilliant, and apparently in their original intensity when first brought to light; but, in a comparatively short time a rapid disintegration took place through exposure to the atmosphere, the blues to greens and the other tones lost

much of their brightness. Collignon's description of the Typhon is as follows: "Flesh, reddish tone; globe of the eyes yellow, iris green, with a hole in the centre filled with black; black outlines to - the eyebrows and eyelids; hair and beard bright blue at the time of excavation, now green; circle of brown round nipples. The colors decorating the triple tail of the serpent are arranged in stripes, one red



FIG. 276. — Tête polychrome d'Athena Parthéno<sup>s</sup>, trouvée à Rome. (Musée de Berlin.)  
D'après les *Antike Denkmäler*, I., 1886, pl. 3.

POLYCHROME HEAD OF ATHENA PARTHENOS.



DETAILS OF SEA-BIRD DECORATION ON THE  
CORNICE SOFFIT OF AN AKROPOLIS TEMPLE

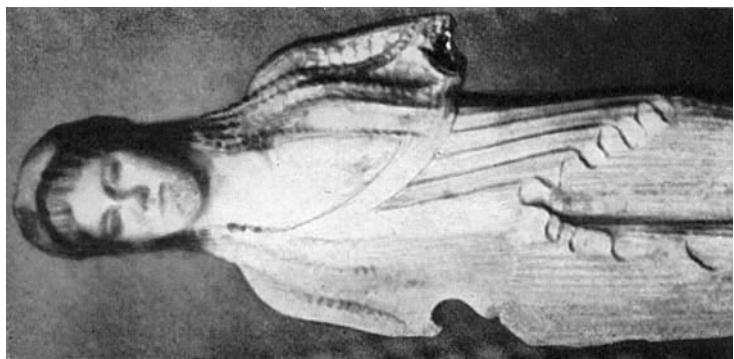


FIG. D. POLYCHROME FIGURE  
AKROPOLIS MUSEUM.

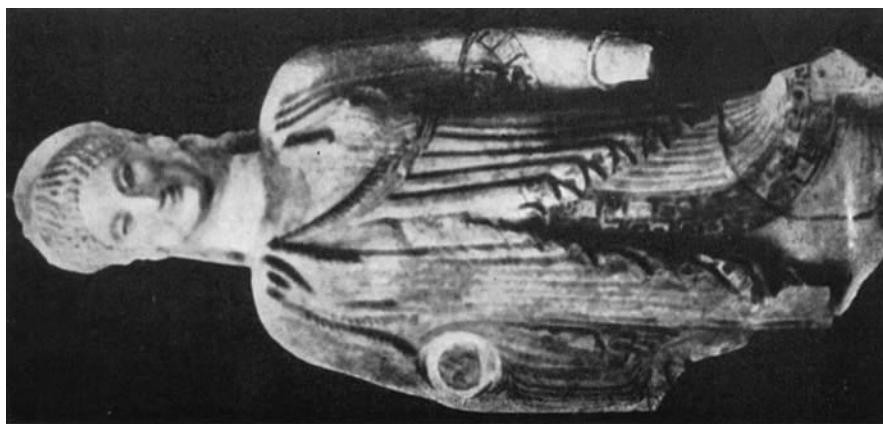


FIG. C. POLYCHROME FIGURE  
AKROPOLIS MUSEUM.

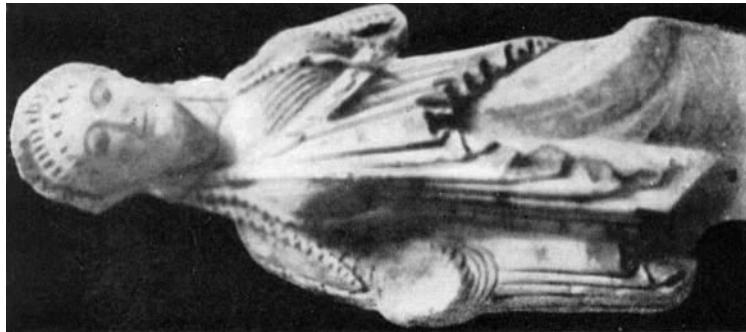


FIG. B. POLYCHROME FIGURE  
AKROPOLIS MUSEUM.

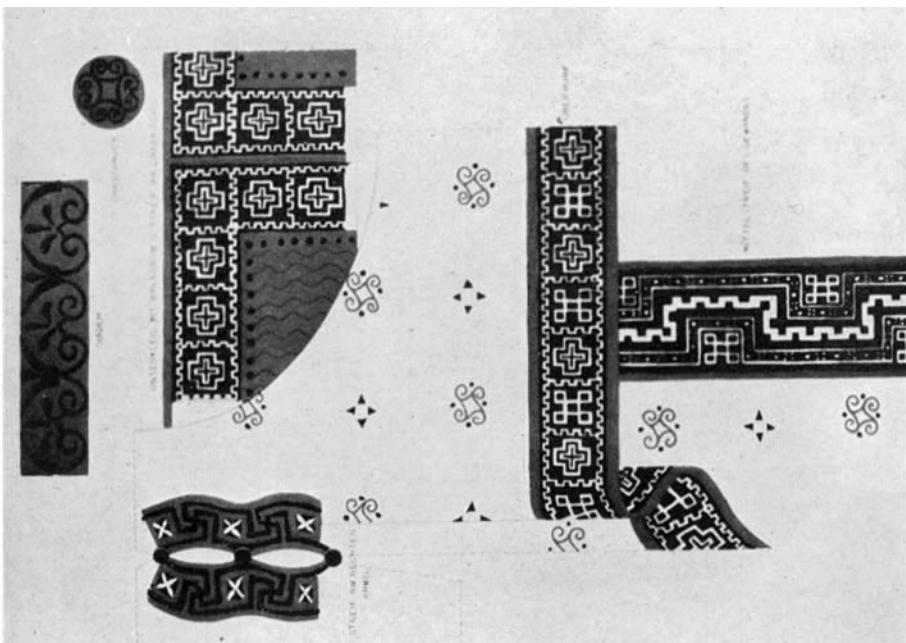


FIG. B. DRAPEY ORNAMENTATION.  
Reconstituted by Dr. W. Lerman

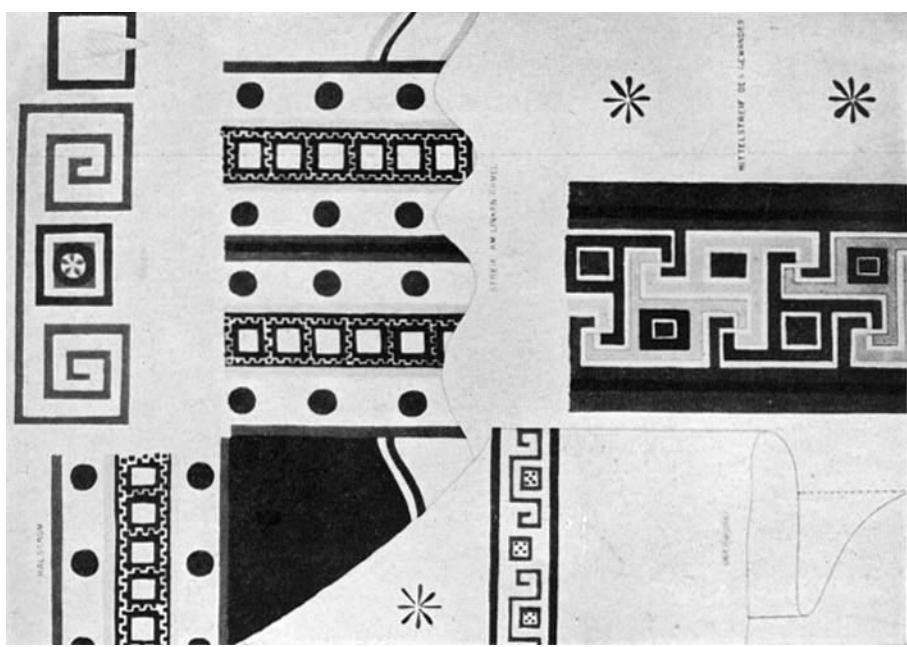


FIG. A. DRAPEY ORNAMENTATION.  
Reconstituted by Dr. W. Lerman

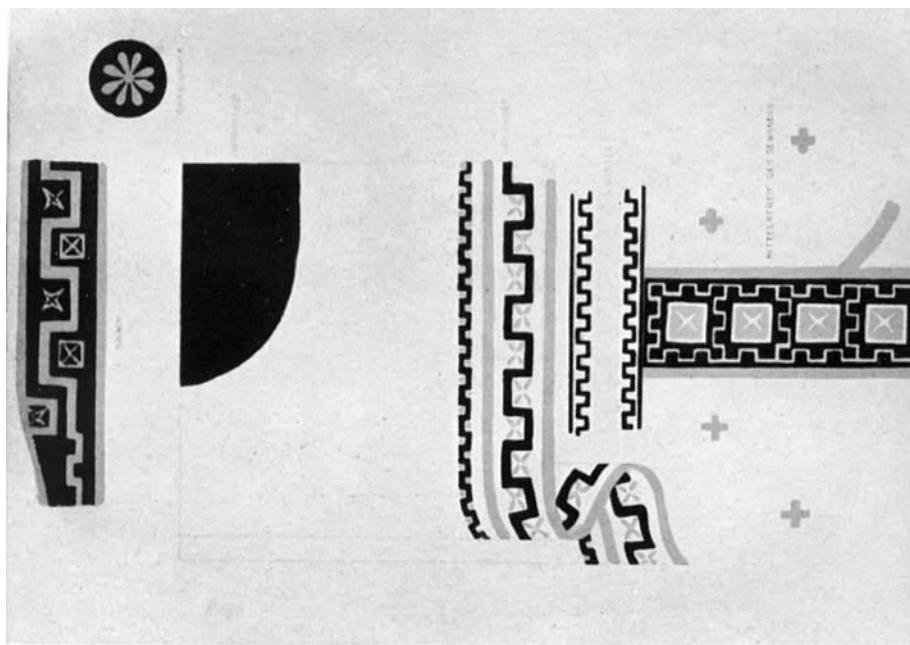


FIG. D. DRAPERY ORNAMENTATION.  
Reconstituted by Dr. W. Lerman

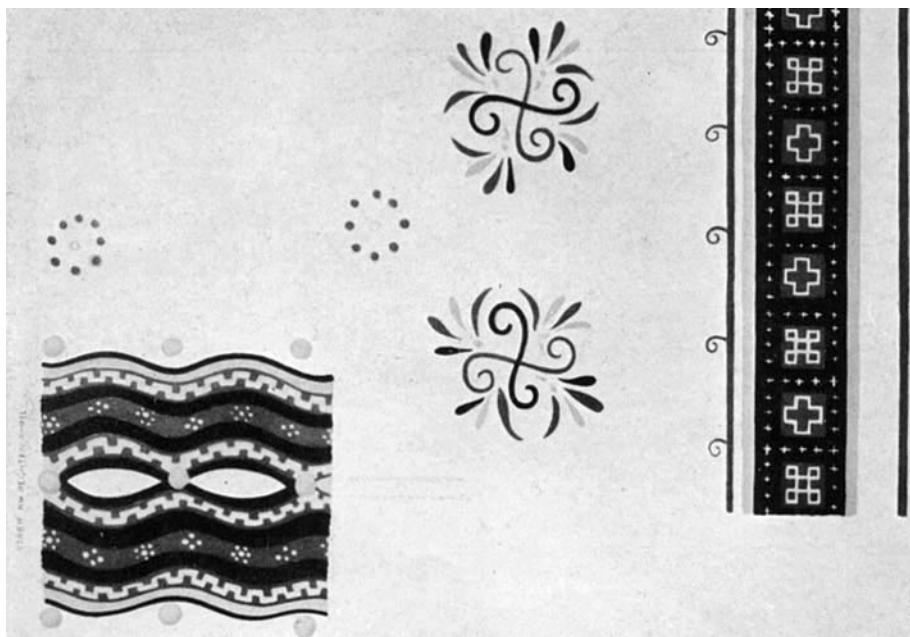
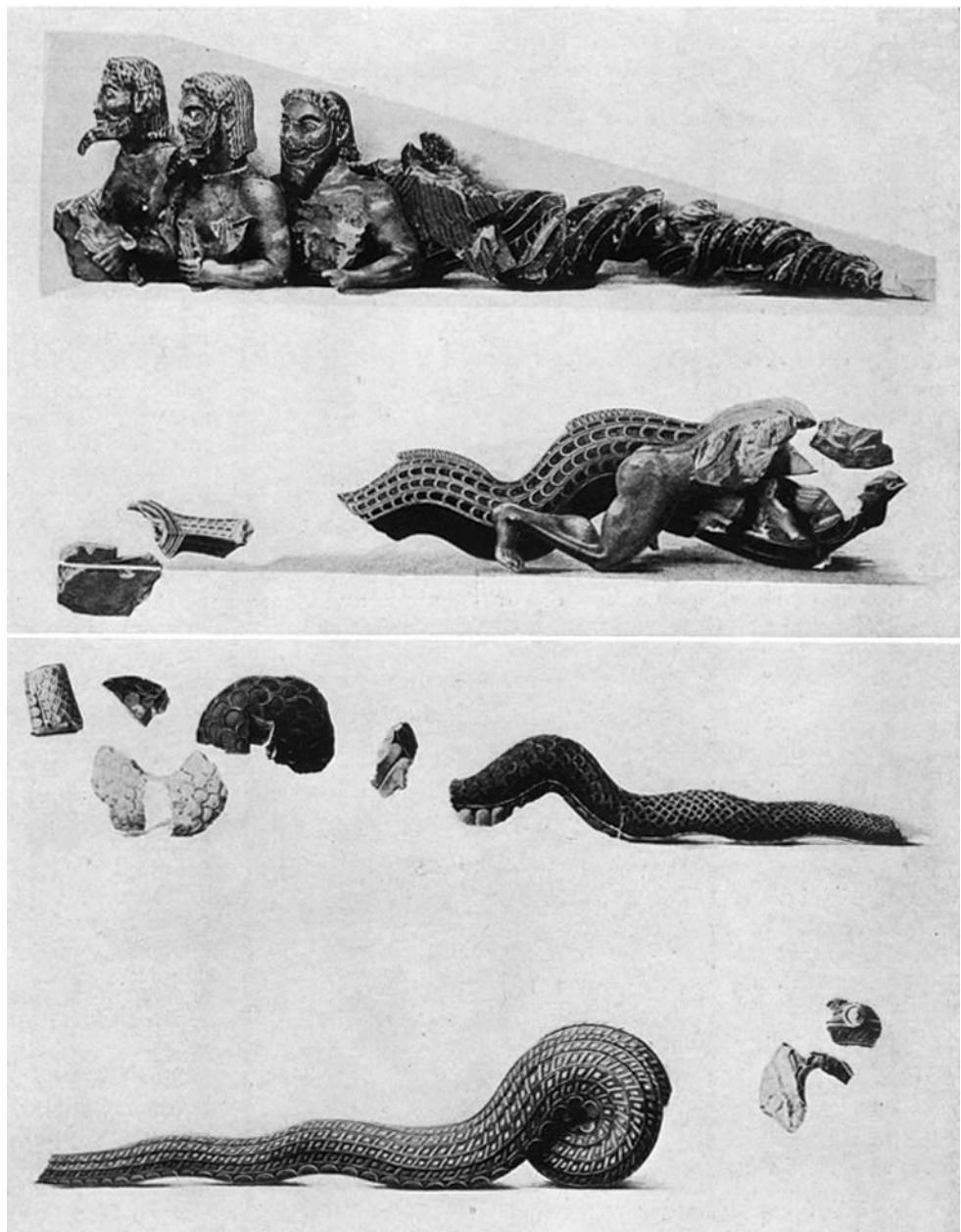


FIG. C. DRAPERY ORNAMENTATION.  
Reconstituted by Dr. W. Lerman



DETAIL—TYPHON GROUP (WIEGAND).

between two blue. Red and blue in alternation on the wing feathers of the Typhon, and on the scales of the triton." The detail drawing of the scales illustrated shows the manner in which the carving was treated for coloring. A beautiful motif of birds in flight, on the soffit, flying outwards with fish in their bills, is treated with incised lines without any relief; repeating detail in the wing feathers is colored with red and blue in alternation.

The metope subjects were silhouette blue background; this practice may have contributed in some measure to that perfection of decorative balance realized in so many examples.

The knowledge that any weakness in composition would necessarily be accentuated, when silhouetted upon a ground of color, must have provided an additional critical angle of considerable value to the sculptor. The active decorative relation of background to subject assumes a greater importance in Greek decorative composition than it apparently does in any other form of racial art expression. The same spirit actuates the composition of the metope subjects upon their colored

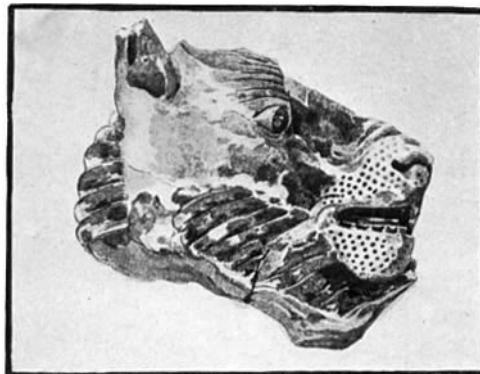
grounds, which reveals itself in the Greek vase friezes with its colored ground, the metope composition involved the same aesthetic problems in figure grouping which confronted the Greek vase painter.

Definite knowledge as to the massing of the colors upon the pediment group must be a matter of conjecture for the present. The variety of figure arrangements which archaeologists evolve with

the same figures and fragments, have not conclusively determined the precise nature of the original groupings, even upon temples as thoroughly studied as those of Aegina and Olympia. The rich polychrome moulding which followed the angle of the roof on the upper edges of the pediment, was undoubtedly a valuable connecting link for the various masses of color distributed over the figures; its practical value in this respect can be appreciated by referring to Plate VI.

#### THE POLYCHROME ORNAMENTATION OF DRAPERY

Data of considerable interest have been accumulated by Dr. Wilhelm Lerman upon this subject. He has prosecuted a diligent research, reconstructing



BULL'S HEAD WITH POLYCHROME TREATMENT.



POLYCHROME HEAD FROM THE TYPHON PEDIMENT GROUP.

the color treatment of draped figures of the VI and V centuries. Many of these are now gathered together in the Akropolis Museum. Our illustration of drapery decorations are taken from his work, "Altariechische Plastik." The same observation is recorded with regard to the disintegration and fading of colors on exposure, which is referred to in connection with the Typhon group. In Dr. Lerman's color plates green figures prominently. Collignon remarks the absence of green on some of these examples at the time of excavation. The type of ornamentation in many examples is distinctive, insofar as the use of the fret detail is concerned. Judging by the designs, one might assume them to be literal transcriptions of the woven patterns of the period, as they are decidedly suggestive of the loom. The ornamentation is often slightly countersunk to receive the color; this must have been of great assistance in reconstituting the patterns. The colors shown in Dr. Lerman's plates are two blues, red and green only. In some examples the chiton is shown with a solid color, dark blue, red or green.

Additional data of the greatest interest will be found in Rudolph Heberdey's "Altattische Poroskulpture," from which work Plate VI was copied.

#### CONCLUSION.

The difficulties encountered in writing this elementary treatise were considerably augmented by the total absence of text books or monographs upon architectural polychromy. Archaeologists have accumulated precise descriptions of examples and have rewritten valuable history; but the effect-value of their discoveries in architectural composition belongs naturally to another order of research: the practical utility of the latter type of investigation endows it with an unusual fascination. In treating of the relation between color activity and its decorative function in architecture, colored examples are essential to elucidate hypotheses stated. In a publication of this character the majority of the examples must be presented in

black and white; that measure of conviction which is so easily acquired from actual specimens, or from elaborately colored plates, is less promptly recorded with a single color print. Those who doubt the practical value of the Greek methods may easily test this by divergence in practice.

The initial and most serious difficulties which are encountered when experimenting with colors, are disposed of in Greek practice; by adopting their methods we will avoid such tedious and discouraging experimentation. The manner in which they neutralize discord, and develop tone interest in a flat tone, is so simple that it might easily be overlooked by the student who tends to assume that the solution to an intricate problem must necessarily be of an involved nature.

The plan of this treatise has been to recognize active color phenomena, and to draw practical deductions, applying these to architectural polychromy. It is impossible to ignore the important function of systematic deduction as a fundamental in the arts. The greatest examples of the arts show no evidence of that peculiar form of imaginative license which the uninitiated so frequently claim to be the habit of genius; why should we expect it to actuate a purely contributory and subordinate activity, such as architectural polychromy? The direction of all forms of artistic activity is determined by aesthetic laws—a code which we recognize under the popular designation of "Taste." Art expression is primarily feeling; but that feeling is controlled by a specific form of intuition, which in turn is subject to the aesthetic code. An intense admiration, resulting from a lifelong study of Greek art, doubtless generated the author's conviction that the solution of architectural color problems would be found in their artistic annals; it is to be hoped that some readers may share this belief. The late Sir William Osler, in addressing the Oxford Classical Association in 1919, said: "The name of Hellas no longer stands for the name of a race, but as the name for Knowledge; or, as more tersely put by Maine, 'Except the blind forces of Nature, nothing moves in this world that is not Greek in origin.'"