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Chapter 4: Greek artists and their colors (apart from ceramics)

J.L. Benson

University of Massachusetts Amherst

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IV.

GREEK ARTISTS AND THEIR COLORS (APART FROM CERAMICS)

GENERAL CONSIDERATIONS

The larger history of concepts embedded in the Four Elements/Four Colors theory, as worked out in this study, seems capable of illuminating a kind of inner driving force throughout the drama of Greek spirituality. To be sure, the well-preserved ceramic tradition alone provided the visual framework for this (at a level not concerned with the great variations in artistic quality characteristic of the category—in modern terms we might say at the existential level of the artisan process). But ceramics, of course, is not the whole story of color. Textiles, statues, paintings, architecture all exhibited color and we must try to take this into account, even though in many cases the color is largely gone. Obviously it is not easy to make judgments about faded bits of color. Since, moreover, these categories sometimes exhibit a more varied range of colors than ceramics, one must go into the whole question of prismatic phenomena along the lines already suggested in order to seek the exact meaning in the use of a particular color.

It must first of all be kept in mind that figural representation on ceramics as a category of objects useful for daily life, trade or for funerary purposes brings us as close as we can get to the life-style of the ordinary Greeks. But the color *sense* found in this category extends right into the loftier categories enumerated above, especially those made of terracotta; and that is not surprising since the similarity of the basic materials suggests similar handling. It was particularly when artists turned to more expensive materials like stone that they chose to add other colors, especially blue, to the basic four. But material alone cannot have been a final determinant.

I am not tempted to explain this situation by the notion sometimes heard that blue is somehow just a substitute for black. In the first place, both these colors could be used simultaneously on the same relief, and already at an early stage, as on the terracotta slab with Gorgo from the temple at Syracuse (Figure 18).¹ The figure itself is depicted in the four color range but the background is blue. Instead of showing air in red/yellow in

the neutral sense of surrounding atmosphere (of earthly beings), the artist has apparently resorted to blue as the color of the divine abode of the gods, the heights of Mt. Olympus, for example, for the Gorgo is now entangled in their sphere. Her hair and accoutrements could still be conceived of as physical (black).

The second consideration is that black, which together with white produced all color in the universal Greek view, and hence necessarily blue as well, absolutely cannot be an identical twin of blue. The evidence is indisputable: the Greeks *could* see blue (*pace* Gladstone) and when they used blue they meant blue. The only valid question can be, which blue did they intend, that of the Dark spectrum or that of the Light spectrum? In the relief just discussed I have opted for the latter, fully understanding that in this very usage the germ of the former was planted and would be nourished by any demythologizing tendencies in Greek thought (but I believe very slowly). This is a problem to be addressed gradually without the interfusion of either materialistic or romantic proclivities from our own age. Again, in regard to the four traditional colors, we shall have to consider the possibility that artists experienced the meaning (effect) of each color in an intensified way when it was applied to parts of statues and temples of the gods. With all these intimidating problems in mind I shall undertake a description and tentative interpretation of some individual works and make some larger generalizations about categories.

Excursus on Literary Evidence

It has long been an accepted scholarly enterprise to investigate the occurrence of color terms in Greek and Latin authors in order to deduce the significance of these terms from the context. Already in 1927 Karl Meyer put together references to *leuks* in cultic practices and established that, starting with Homer, that word could be used equally for light itself as “shining” or “brilliant” and for physical or physiological qualities as “white”, for example, women’s arms or milk. A fusion of the word “white” with the moral sphere implied in light to give “pure” or “innocent” was then established, this being especially obvious in Early Christian practice. Essentially his study stands in a tradition of using written references to supply the data for religious, sociological or anthropological conclusions; the dividing line between this and the psychology of color can be fluid, as in Ingrid Riedel’s 1983 study.

In any case, since there is in that stream little concern with how the Greeks may have experienced their use of colors, it is evident that my approach to ancient color problems is altogether different. Yet it was, to a certain degree, anticipated insofar as Heinke Stulz included a section on color theory and its relations to the visual remains of Greek art in her study of the color red in early Greece (see Chapter II, *Prologue*, In Particular, paragraphs 1–10). It is appropriate, therefore, to refer to this again before presenting my interpretations of specific works of art. Her book is symptomatically a welcome contribution to ancient studies and, within the rather narrow framework she set for herself, is well worked out. She concentrates on one specific color suggested by the two terms *porphyreos* and *phoinix*, by which one understands, respectively, a lighter and a darker shade of red (Liddell and Scott), with the *phoinix* ranging from crimson to

purple. To what extent one should match these terms from early Greek literature with actual colors visible to us on Greek artifacts is open to question. We simply cannot know whether an early Greek painter would have attempted to match terms known in poetry to standard colors in his paint-box; the question is even less answerable in relation to sculptors, on whose work only traces of color (if any) now remain. I prefer greater caution here than does apparently Stulz.

Another limitation to the reasoning of Stulz centers around the fact that she did not (this is not a criticism but a statement of fact) consider the physics of Greek color theory, which lead over to its metaphysics, but based her conclusions on the physiological aspect, which is, indeed, as we have seen, a prominent factor in Greek philosophy. Nevertheless, it is only on the basis of a full study of Four Elements/Four Colors philosophy that we can find the diachronic factor involved (as opposed to her largely synchronic approach).

That observation elicits a question: how does the rather frequent reference to red from Homer to the Protoclassical poets relate to my chart (see Chapter III, *Hellenistic Painting in the Light of the Cycles*, chart following paragraph 8), which shows for the Geometric period black as the dominant and yellow as the subdominant colors and for the Archaic period yellow as dominant and red as subdominant? While the explanation for an apparent discrepancy here lies in the complexity of the overall development of color sensitivity, which I have already laid out in detail, some further comments may be useful at this point. Obviously, Greek authors were not constrained by any ordinances on color usage; they chose whatever color terms suited their purposes. Yet, even though they were not painting a picture with a brush, they had to understand on some level what color did suit their purpose. Thus, the adjectives I suggested for red in the physiological column of Ill. 16 and their metamorphosis, as it were, in the psychological and noetic columns, fully explain why that color is suited to an imagination of the raw vitality of the epic world. These adjectives are, for example, in Stulz' description of the effect of Agamemnon's cloak as he harangued his troops at the ships (see her pp. 100–104), the real driving force of that effect.

Other questions follow that finding. First, where did Homer get the two color words for red being considered, as they have Near Eastern connotations, especially *phoinix*? Whether these are to explained as surviving from the Aegean Bronze Age or as newly introduced from the East in the later Geometric period, the fact remains that they seem to convey in the epic meanings that coincide with a precisely structured ancient color theory, as I have shown and as any reader can verify by studying Stulz' analysis of the Agamemnon episode cited above in conjunction with my Ill. 16. A certain timeless quality uniting us across the ages to Homer is inherent in this: we can *understand* his use of red.

Let us return now to the problem of the dominance of red. Is it really so dominant? Stulz herself points out that its use was “secondary in Homer to that of *weiss-glaenzend*.” I would argue that this situation in Homer does not justify her conclusion from it, namely, that red is second most important to white in the color scale (on Plato's discussion of these colors in quite another context see Chapter II, *The Ancient Sources*, Plato, paragraph 7). What Stulz has found is a literary coincidence, not confirmation of a

(not completely understood) variant of Empedoklean theory excogitated some centuries later. It is one thing to use a comprehensive color theory to understand Greek literature; it is another to adduce those authors as sources of technical information. Indeed, my final impression from reading Stulz' study is of a light-filled consciousness of white and red as the mood of the early centuries. I believe that this impression has its subconscious cause in the Newtonian view of light that ultimately taboos the subject of death in modern consciousness (see Introduction, paragraph 3). Homer leaves us the opposite impression: woe, death and destruction, punctuated by (often ill-fated) heroism.

The final question to be asked is: what is the relation of color to literary conventions? Homer's red and purple were, as pointed out by Stulz, picked up by lyric poets, much later of course, and used increasingly in a metaphorical and technical way and, I would add, a conventional way. The metaphorical tendency was already prefigured by Homer himself in the term "wine dark" sea. From that point on, indeed, we are dealing with literary convention, not immediate color experience. Hence if there are any echoes of such conventions in vase painting, as Stulz assumes, they are surely to be seen as would be any other epic convention and they would have only the most tenuous connection to any direct color experience on the part of the painters as soon as the convention was established. My feeling is that there is too much speculation in this assumption (by Stulz) and that it is safer to assume that red, purple, white or yellow touches added to the Four Color basis of Archaic vase painting were simply decorative enhancements called forth by the color sense of the artists (although the use of these touches, usually in specific places such as the flank of felines, quickly created a convention of another sort). In stone sculpture, beginning so much later than Homer, the case could be different, although there is very little reliable color to consult. At least with the flowering of sculpture in the later 6th century in great temples and cult statues, sculptors must have been as aware of the basic meaning of colors as the great painters of this period. I particularly want to stress this point because our very first instance of panel painting, discussed below, was created in the crucial second half of the 6th century.

My final conclusion, then, from the foregoing reasoning, is that, however precious literary references to color are, an integrated, holistic theory of the Four Elements/Four Colors philosophy is a more exact and trustworthy guide to interpreting the significance of real colors in materials preserved from antiquity. This is especially so because the origins and ancient connotations of color terms can never be known to us fully, while the precise aspect of a color term intended by one poet may be transformed into something else by a later poet, as Stulz has shown. And we do not necessarily always have both the early and the late reference. Actual colors in works of art before our eyes constitute objective evidence, and a consistent system of understanding color meaning reduces, even though it cannot entirely eliminate, speculation.

PANEL PAINTING AND WALL PAINTING: MAINLAND GREECE

The (Late) Archaic Period

It seems appropriate to begin with painting of a type that could not, merely through the material of the support, lend itself to the system of “earth colors”. The earliest known representative of this sort is the now famous wooden panel from Pitsa, which informs us about the time just before the dawn of the Proto-classical period and is securely identified as the depiction of a sacrificial ceremony.

Designated as Pinax A (out of four similar ones) the panel has been fully described by A.K. Orlandos², so that we can proceed to an interpretation of the colors (Figure 19). The figures of the procession were painted on a ground said to be white, although this indication does not seem to be entirely certain³. However, on the assumption that it is white, and correctly dated, this would be the earliest known instance of polychrome figures isolated—hence, coloristically enhanced—against a white, “spaceless” background. Did the artist also have a sense of the meaning of this color on the transcendental plane? Was there already a tradition of religious scenes against white on panels?

The blue and violet of the altar make sense only in the context of the Light spectrum as a sign of piety toward the gods, in the manner of the altar cloths of Christian churches, whereas the black of the altar itself appropriately refers to the physical density of the structure. Again, it is obvious that the worshippers are wearing clothing appropriate to the festive occasion; thus the transcendent blue of meditation and the red of human dignity define the garments, just as in the Madonna icons of the Quattrocento. But the white skin of the ladies and the red skin of the boy appeal as pure conventions, inherited ultimately from Egypt, so perhaps also the consistently black hair—all of this derivable from the Dark spectrum. The brown portions of the scene are presumably explained by loss of the gesso surface (the skirts of two of the women have miraculously escaped this dissolution).

Since the foregoing color analysis is novel, I shall summarize it more systematically and then attempt a broader interpretation of the results.

Black: altar—physical (Earth)

White: background—neutral or mental/moral (Transcendental) skin—physiological (Earth) Sheep—physical (Earth) gray to suggest wool?

Red: skin—physiological (Earth) garments—mental/moral (Noetic)

Violet: object on altar (also pitcher?)—mental/moral (Transcendental)

Blue: rim of altar—mental/moral (Transcendental) garments—mental/moral (Transcendental)

This characterization of the purpose of the colors speaks to us across the ages about a basic intentionality of the artist: he was circumscribed in choice of colors by the necessity to satisfy an experience in the life of the soul, whether one thinks of this in reference to him personally or to those in his community who might see or use the object he created. On this basis I shall attempt to fit his color choices into the ecclesiastical usage of the Western world. I regard this as an exercise in historical realism and, in common with other classicists such as Karl Meyer (see his p. 112), an appropriate method of interpretation.

The predominance of red and blue in Early Renaissance religious painting (and even earlier) is given and, of course, it carried over in principle even into such later areas as French secular painting of the 18th century in aestheticizing attenuation. In the forthrightness of his color usage the artist of Pinax A is perhaps most comparable to Giotto and the pioneers of oil painting. The rationale for the red-blue combination in both cases can only be an intensely felt perception of the interweaving of human action (or potentiality) at its highest level with divine omnipresence, as expressed by red and blue respectively. The extension of this coloration beyond figures to architectural settings, as in Domenico Veneziano's "Madonna and Child with Saints", ca. 1445 (Figure 19 bis), demonstrates that the entire consciousness of the artist was absorbed into a psycho-religious vision.

What are the historical differences between Veneziano's scene and that of the pinax? Although in the latter the same color combination is present (and related color symbolism carries over to part of the altar), the total effect is quite different. Its white background separates the figures impersonally and that objectifies their presence. Again, in the Christian tradition Mary wears a red garment next to her body, obviously to show her humanity, but is usually enveloped in a large—even massive—blue cloak signifying her intimate connection with the spiritual world. In the pinax, the priestly ministrants wear blue next to the body and are enveloped in a large red cloak. Logically, the blue in this case denotes the impersonal sanctity of the servant of the deity; indeed, no personal qualities are given in the representation in contrast to most representations of Mary. Correspondingly the enveloping noetic garment provides the dignity which the priestly status has at all times enjoyed along with social recognition. The child acolytes wear either red, perhaps to indicate that they are from the lay sphere, or blue, which might show that they are already destined for a life of service to the deity. A more grudging interpretation might suggest that their colors are distributed only to satisfy a rhythmic sense.

It cannot escape notice that the largest figure in the scene, now headless, is indeed completely enwrapped in a blue himation, thus paralleling some representations of Mary (e.g., that of Rogier van der Wieden's *Descent from the Cross*, although there the head is enveloped in a white cloth). This differentiation from the other figures on the pinax is so precise that it must be the determinant of the entire scene, that is, showing that the large figure is the goddess herself or her statue. Stulz has pointed out (her p.119) that in the epic and epic tradition purple (red) is never worn by gods and women but only by highly placed men. Yet by the end of the 6th century our document shows that the female ministrants of a goddess do wear red (our artist clearly differentiates red and

violet). And in the Protoclassical period Pindar has minor goddesses, at least, the Horai, wearing red cloaks. Stulz' explanation for this as a literary conceit (her pp. 138/39) connected with the vital forces of spring renewal could be correct; if so, Pindar has focused on the physiological implications of red, whereby the older mental/moral associations would still trail along. Nevertheless, it is exactly on the comparison of Pindar's cloaks and those of Pinax A that the limitations of literary color interpretations are evident. On the pinax we have color *combinations*, hence color context; in the ode we are not told the color of the chitons the Horai must have been wearing under their cloaks; indeed, the color reference is far too vague and poetic to support any more precise translation than "red-clad". Thus, we lack vital details. Their importance can be demonstrated again by looking ahead briefly to Chapter V on sculpture.

In sculpture there is little evidence from traces of color preserved on early statues that can help with specific problems of deities' garments. In the case of the Berlin Goddess it has been suggested that there was some patternization in red and blue (with yellow) on the chiton. However, to utilize this information one would need to know the extent and arrangement of these colors, which is manifestly impossible. By the Protoclassical period the Athena of the west pediment of the Aigina temple is credited with a red chiton together with a blue helmet. This amounts to an inversion of the Renaissance iconography of the Virgin. For Athena, who by her nature is entitled to wear transcendental blue on her body, instead wears noetic red and in so doing conveys the new, essentially Classical intimacy of the gods with human beings; in this case Athena deliberately adopts a human attribute. This is also in keeping with a physiological undercurrent in Greek culture at that time (established in Chapter III in the analysis of redfigure painting). The red of Athena's garment responds on the psychological plane to the excitement of the battle being depicted. This new complexity in the consciousness of color expressivity goes beyond the Archaic stage and helps justify my term Protoclassical for the years 525–480.

All in all, the coloring of this panel affords us a precious glimpse into a more reverential side of early Greek life than that generally conveyed by the more earthy scenes and colors of ceramic painting, although even Pinax A can surely be only a pale reflection of the powerful impression sacral architecture with its color system must have given.

The Classical Period

Apart from the Pitsa wooden fragments no original Greek panel or wall painting has been preserved until the very beginning of the Protohellenistic age. There are, to be sure, many wall paintings in Etruscan tombs which reflect something of Greek style, but it is the style of Greek vases and utensils. Etruscan colors need to be treated separately and also, to be consistent, those of wall paintings influenced by them in graves from the region of Paestum.⁴ At an equal distance from our theme are the fragments of wall paintings of the late sixth century B.C. found in Gordion and Kizibel.⁵ Though apparently strongly influenced by Greek style, these deserve a separate treatment that would

investigate possible influence on the color system by non-Greek commission-givers and local tradition.

Thus we are left with no original major paintings (fresco or panel) of the Greek mainland in the Protoclassical and Classical periods, that is, until the end, or near the end, of the Classical period. Nevertheless, there is a considerable corpus of ancient passages dealing with just these missing paintings and I will consider them below. That is one aspect of the problem; the other is that in the last generation excavations have brought to light an unexpected bounty of actual fresco paintings and stelai in northern Greece which, given the high status of their commission-givers, must reflect the best that the art of Greece could offer. Since these paintings date from the Proto-Hellenistic (or very latest Classical) and very early Early Hellenistic, they must at least reflect the results that major painting achieved in the just preceding era. There is also something to be gleaned from the coloration of a few mosaics and sarcophagi. Since all of this has been analyzed many times from an art historical viewpoint, my remarks will largely concern questions of color choice and technique.

To begin with the ancient passages. Numbers in parentheses refer to pages in J.J. Pollitt's compilation *The Art of Greece 1400–31 B.C. Sources and Documents* (Englewood, N.J. 1965).

Cicero (221) avers that Polygnotos (Early Classical), Zeuxis and Timanthes (fourth century) and other painters used no more than four colors. It is quite understandable that many scholars—working from a Newtonian view of color⁶—have proposed a contradiction in the inclusion of Polygnotos in this category, especially since Pliny (228) specifically lists Apelles, Aetion, Melanthios and Nichomachos, all much later than Polygnotos, as masters of the four color school. Note, however, that Pliny's intention is to explain why paintings of the artists in this list fetch high prices—that is, because of the unexcelled quality of their works. He is not concerned with artists who may also have used this technique but failed to produce “immortal” works. Moreover, Pliny, like Quintilian (219), might have regarded Early Classical painters as rather primitive anyway, whereas Cicero had a more catholic taste.

I see no reason to reject the evidence of Cicero.⁷ In fact, every detail in the literary tradition speaks for the dominance of the traditional four colors in major painting from Polygnotos onward. In the ancient passages (apart from the two just discussed) I have counted six casual references to black, two references to yellow, one to white and one each to purple (perhaps as an enhancement of red) and to a color between blue and black. No others! On this latter combination I shall comment directly; but one sees clearly in these raw data what stood out in the consciousness of the commentators. As to blue (combined with black—a blue-gray being a frequent color on white-ground leythoi) it has mystified astute critics of Greek color that blue was excluded from the canon of colors; I trust that my connecting of the four colors individually with the four elements may dispel that mystification. Of course, blue could be and was used where appropriate, but it could not form part of the point of departure for artistic conceptions in the Protoclassical and Classical periods. The artistic elite of those times, when Pythagorean influence was so strong, could hardly have avoided the task of clarifying the dynamic and chiasmic balance of the four colors—just as was being done for the understanding of the

four elements—and Cicero has given us the clue that the fame of Polygnotos rested on his ability to make a contribution to this task.

Furthermore, there is another factor to be considered. In my review of the origins of four color painting on ceramics I reported on the opinion of Mertens that Euphronios was the essential innovator. As that innovator has the deserved reputation of being a great artist, he must surely share the credit with Polygnotos for the four color synthesis, whether as follower or leader. It is ironical that Irma Wehgartner, who has given us a careful account of the mechanics of the emergence of this technique in terms of shop practices, found it necessary specifically to deny any connection with four color major painting.⁸ How can we visualize the *colors*—if not the whole style—of Polygnotan works as being much different from that of the very best four color cups? A broader, freer technique might have been encouraged by the sheer size of his composition (*if* they were very large and true frescoes)—perhaps reflected in the ongoing fortunes of white-ground ceramics—and there is no doubt that he tested the expressivity of other colors. Pausanias (101), in a rare departure, mentions specifically that the skin of the demon Eurynomos in the Knidian Lesche was between blue and black like that of flies “which are always hovering over meat” (not necessarily an original observation of that writer). There could be no better example of the use of local color—that of flies—to suggest *ethos*. This significant variation from the normal color of human flesh in no way disturbs what must have been the general impression of the painting as being of the four color variety, any more than attributes given to a statue would disturb its classification as contrapposto.

The Use of White and Yellow by Polygnotos

In my investigation of the realities behind the four color palette I have relied heavily on ceramic practice in Attica. This yielded abundant evidence for the colors black and red—insofar as red in this context is not generally pure but mitigated by yellow—and also white. Yellow *per se* remained more elusive.⁹

In general, the implications of these colors seemed best explained in the Archaic period as mainly physical and physiological, even though it is not easy for us, as modern critics, to shut out the many psychological, noetic and metaphysical overtones which, it seems, did not consciously come into play until the “Protoclassical Revolution” of values. At that point, it starts to be possible to sort out some of those values. Moreover, it has proved possible through analysis of sculptural coloration (see Chapter V, *Archaic and Protoclassical Periods*, paragraphs 2–3) to recognize the quite opposite situation of blue: this has metaphysical implications in the Archaic period and perhaps began, in the Protoclassical period, to accrue to these a very limited transatmospheric significance and, in the Classical period, some value as a local color.

Polygnotos must have overlapped the Protoclassical period in his beginnings and would have been, by osmosis if nothing else, a party to all this. As an early Classical sculptor and painter (along with Mikon) he would have been imbued with the principle of dynamic ponderation (see Chapter III, *The Emergence of Redfigure Style*, paragraph 8). Furthermore ancient sources comment specifically on his relation to yellow and blue-gray. The fact that he would have been contemporary with the remarkable trans-

formation of white from a physical to a noetic color in white-ground painting gives a clue for approaching a decisive question which, to my knowledge, has never been posed: what was the background color of Polygnotos' paintings (which are thought to have been movable wooden panels)?¹⁰

First, what about walls (or panels) in the Archaic period? There are at least two possibilities. If white was used—for which I know no direct evidence from mainland Greece (excluding the somewhat ambiguous Pitsa panel: see Chapter IV, *Panel Painting and Wall Painting: Mainland Greece*, The (Late) Archaic Period, paragraph 2)—it may have been in the physical sense of the Dark spectrum, like black, red and yellow, providing what we might think of as a neutral (empty) setting. This would explain why it took Euphronios a while to discover that outline figures make sense on a white background—in fact to discover that white is a real noetic color (see below for closer definition) capable of meaning something in combination with the active colors. Or the Archaic painters may, not knowing the noetic quality, have sensed the super-high transcendent quality of white in the Light spectrum (Illustration 16) just as they did with blue. In this case one might postulate that Nikosthenes “discovered” the physical “decorative” value of white, that this was re-discovered a generation later and was considered a novelty of limited interest until a great painter like Euphronios—in tune with the noetic awakening of the Protoclassical Revolution—gave it a new and more suitable role in a dynamic balance with the usual three colors.

At this point a closer definition of the quality of the white background in white-ground painting is called for. Whether white emerged from the Archaic period as a physical or a transcendent color, I believe that in the Protoclassical and Classical setting and right on into the Protohellenistic tomb paintings, it is non-atmospheric, knows no horizon or spatial depth and thus serves as the color of pure human self-consciousness in which the figures are bathed. Since the color itself implies light, shading on the figures is not totally illogical, even without a specific light-source. Because of the self-consciousness of the figures the effect of the color is, on the whole, uplifting, ennobling and thus suitable to harmonize the grief of bereavement rather than to intensify it as black would, for figures in a funerary context against a black ground would seem to be held fast by the implication of earth density.¹¹ By the same token white would be ideal for working out the emotional quality of *ethos*. It would be literally astounding if Polygnotos did not avail himself of this tool. The saturation of the other colors could be infinitely varied against white to express nuances of emotion. Moreover, when four color *contrapposto* is enriched by a color from the other side of the spectrum for a special effect, the white background could isolate it dramatically, as may have been the case of the blue-gray Polygnotos used for the skin of the demon Eurynomos (see Chapter IV, *Panel Painting and Wall Painting: Mainland Greece*, The Classical Period, paragraph 6). Had the artist put this against any other color, distracting problems of color harmony might have arisen.

We are told by Pausanias (Pollitt, 102) that in the same section of the Lesche the companions of Odysseus are carrying black rams. This again supports the suggestion that the background was white. Further on in the same scene Pausanias implies that the poplars and reeds of a grove are black—since that color apparently enabled him to

recognize the grove as that of Persephone. In all this there are indications of hills; it is generally thought that the famous Niobid vase in the Louvre reflects the technique by which Polygnotos conveyed the impression of uneven terrain, that is, by irregular contour lines with no horizon. If we picture the other figures mentioned by Pausanias as showing some orange, brown, yellow, etc. plus solid black accents like the rams and the trees we can begin to sense what the paintings of Polygnotos were like. I suspect that the human figures were in outline with solid colors for accoutrements because solid flesh color together with descriptive colors would have produced a more realistic or even showy effect than would have been appropriate to the theme of an Underworld scene with shadowy figures.

There is another aspect of the problem. We know from Pliny (Pollitt, 228) that Polygnotos and Mikon paid particular attention to yellow. For what could they have used it? Possibly and probably for local colors. But the Alexander mosaic gives us a clue that should not be overlooked. In the macrocosmic series (Illustration 12 B) yellow corresponds to the element air and conveys (invisible) energy. This is precisely what the artist of the mosaic gives us (see my description in Appendix A, *Mosaics*, paragraph 1). By the late fourth century a tremendous subtlety in hues had obviously been achieved but while we cannot expect the same thing from Polygnotos and Mikon, they may have understood that yellow can convey both a physical quality (energy-charged air) and a noetic quality (egotism), both highly appropriate for battle scenes. This raises the question, was a horizon line ever specifically shown? A white background, as in the Knidian Lesche excludes this. Indeed, the problem may always have been avoided—as it was in the mosaic where the picture space is totally filled with human and animal corporeality so that the horizon has to be imagined somewhere back of the action. The Alexander mosaic gives us a breakthrough into the viewer's space, not a foray into pictorial depth, while the Niobid scene for all its stacked contour lines remains flattened in a lateral plan. As yellow expands *towards* us, it is really more likely that Polygnotos used this quality in a very elementary kind of color harmony in which only the spatial depth of a "pictorial ledge" corresponding to the physical ledge of fifth century pediments and reliefs is judiciously maintained. This would be one aspect of what I mean by four color contrapposto (in this context *counterpoint* might be more precise).

I conclude, therefore, that Polygnotos and Mikon—and, of course, many others—found white backgrounds to be a satisfactory device both for the physical emptiness of white and for its powerful noetic connotations. If there was any use of blue in its purely transatmospheric quality, I suspect that it was used only when foreground objects obscured the true horizon line and reduced the physical sky to a mere appendage to the scene. The conditions for this are ideal only in a neutral scene in which the blue can add a touch of peaceful recession after contemplation of the foreground. Obviously this circumstance might be met by buildings massed together as in stage sets. An example of this in later times, conceivably but perhaps not likely with precedents of the kind I am hypothesizing as early as the beginnings of true *skenographia* (Agatharchos), is given by the cubiculum of the Villa Boscoreale (see Chapter IV, *Panel Painting and Wall Painting: Italy*, Color Analyses, Boscoreale, paragraph 2).

Some Aspects of the Use of Blue

Apart from the foregoing suggestions we have only the course of white-ground ceramics to give us some—no doubt very rough—idea of what in major painting must have been an increasingly subtle understanding of the technical possibilities of the Dark spectrum along with a more intimate adjustment of the four colors to those of the Light spectrum in scenes in which transcendent values were more or less in play.

A symptom of the last-mentioned factor can be seen in the use of blue on a white-ground lekythos of the later fifth century (Figure 20).¹² This color appears on a fillet tied somewhat diagonally to a grave stele before which is seated a youth with reddish brown hair. The blue continues at a sharp angle downward over the youth's shoulder. It is not clear to me whether this represents a loose end of the fillet or part of a garment (a cape thrown over the shoulder) but probably the latter, in which case its color has been attracted into that of the fillet—which after all has some connection with ritual. This connection is supported by the blue-gray paint on the pediment of the stele. There is a slight suggestion of torsion in the actual forms discussed plus a single color uniting two spheres (the religious one of fillet and the utilitarian one of cape, the color of which was perhaps chosen here more to unify the design than to represent what was customarily worn). Some generations later another illustration of this type of interaction occurs in the decoration of a tomb in Kazanlak.¹³

A male figure in a festive procession (Figure 21) holds in his hands a blue cloth; the same color is discreetly repeated in the design of the border of the frieze, but otherwise all the colors of the whole painting derive from the four color palette (in my sketch I have concentrated on the approximate color relationships). The blue of the cloth gives such a liberating effect in the psychosomatic sense—that is, as a means of releasing concern with the earthly world into a higher one—that to call it an accidental local color would do the artist an injustice, especially in view of the delicate rhythmical repetition in the frieze of the somewhat dramatic splash of blue on the cloth. The intimacy of this use of one transcendent color in a four-color environment cannot be grasped in words, but only felt in response to the artist's inspiration.¹⁴

From the white-ground repertory, however, I cannot cite an illustration of the former of the above suggested Classical developments (subtler understanding of the technical possibilities of the four color system). At least in major painting there must have been developments leading up to the subtler understanding that has been demonstrated by V.J. Bruno in relation to the same frieze at Kazanlak. Watercolors rendered by him based on close study of the originals show that blue shadowing was introduced in order to enhance the naturalistic effect of *figures otherwise painted only from the four color palette* (Figure 22). In this instance of illusionism it becomes clear that the eyes of Greek artists were opened in the Hellenistic period *at the latest* to the purely optical subtleties of the Dark spectrum, that is, of the physical colors, in the same sense, if not to the same extent, as this occurred in French Impressionism. In the service of illusionism black could on occasion be used alone for shadows as well as in combination with blue, as in European painting. Not until this stage of highly conscious shadowing technique where the optical rather than the psychic quality of blue is

addressed can one speak of an identical function of blue and black. And at this late point such functional identity has no theoretical (philosophical) significance for the four color doctrine.

The Protohellenistic and Early Hellenistic Periods

The Art Historical Setting

After this glance ahead to the third century, I return to deal in detail with the final achievements of Greek Classical painting *qua* four color painting on the basis of the elaborately decorated tombs found in Eretria and northern Greece. These display for us the *culmination*—and no doubt the turning point—of the tradition of Classical fresco painting. Furthermore, various stelai found in the region of Volos are surely little different in the theory of color they demonstrate than contemporary Greek panel painting (though that must have had a wider range). All this gives substance to Pollitt's assumption¹⁵ that the four color painters mentioned by Pliny were at a sophisticated stage of development. It is now understandable that it was not only the glamour of the personality and achievements of Alexander but also the high technical achievement of Protohellenistic painting that caused the later commentators to look back on it as the ultimate two-dimensional standard, much as in our era the High Renaissance has occupied that position. Of course, in ancient times, the palm for sculpture was accorded to the High Classical artist. Indeed, it was the very dominance of sculpture as the great medium of artistic expression—conservative as its development was—that gives us assurance that Classical painting as well never strayed from contrapposto of the four colors any more than sculpture strayed from contrapposto of the four limbs. It is worth noting that Polygnotos and Mikon were reported on the one hand to have been sculptors as well as painters (Pollitt 105) and on the other hand to have been the first to institute “the practice of painting with yellow ochre, using only that which comes from Attica” (Pollitt 228). At least in ceramics yellow had nearly always been used to bring red to shades of orange before it found some direct use in Four Color painting. The minimum that we can take from the information about Polygnotos and Mikon is that they were concerned to give yellow its full due in the contrapposto equation of major painting (see Chapter IV, *Panel Painting and Wall Painting: Mainland Greece, The Classical Period, The Use of White and Yellow by Polygnotos*, paragraph 6).

The first consideration in dealing with the Protohellenistic/Early Hellenistic tomb paintings is that the painted facades occur on a variety of architecture and to that extent follow the conventions of that medium. Thus, there are white backgrounds throughout. How far does one go, then, in giving special value beyond that of an architectural convention to the white of marble or limestone building materials? Parts of those materials were painted over with other colors to achieve a desired symbolical and visual effect and parts were left white, so white is part of a meaningful synthesis.

When the Greeks began to build temples in stone and decorate them with colors, a religious sensibility of the Light spectrum, particularly in the case of blue, must have inspired the choice of colors. Here we come face to face with the facts of world evolution: why does the hue of so much fine building material, especially in the Mediterranean, lie

in the white range? Nothing compelled the Greeks to use it, but on an existential level, once they did, a powerful transcendental implication inhered in their structures (which, incidentally, has remained alive in the western architectural tradition—not least through the example of the Romans). I shall therefore make no additional reference to this in continuing the discussion (but this does not preclude reference to the noetic understanding of this color that came about in the Classical period).

The Coloristic Complexity of the Lefkadia Facade

The designer of the Lefkadia facade¹⁶ (Figure 23) played very freely with the rules of architectural orders to achieve his coloristic purposes. The low, plain pediment is separated from the architrave by a kind of high attic with half-columns and filled interstices with the result that the viewer's gaze is drawn first and held to a highly dramatic frieze about center height of the building: battling figures rendered in shades of tan with carmine accents move fluidly within a tangle of close encounters (unfortunately the center is missing) against a black background. This continues the black background frieze of the Erechtheion and suggests that the Protoclassical ceramic innovation of warm-hued figures on black background had a deep hold in the Greek psyche; it became a particular style in later Hellenistic painting (see Chapter IV, *Panel Painting and Wall Painting: Italy*, Introductory Observations, paragraph 8 and see *Conclusions*, paragraph 3). Moreover, it seems that some blue touches on garments were modified by a mixture of white for a pastel effect. All these factors, including the scale in relation to the panel figures below, remove the frieze from the realm of real happenings to a world of imagination and potentials—yet with no strong mythic or mythological force, especially in the strong contrast with exactly that feature of traditional Greek iconography offered by the sculpturesque monochrome figures of the metopes.

But that contrast pales beside the contrast of both these elements together with the four spacious inhabited panels below created by cutting off the horizontal courses of the solid wall between the Doric columns. The flowing, then retarded movement above comes to a complete halt when the descending gaze confronts four solid, quiet figures, differentiated among themselves in costume and pose but uniformly simple, dignified and in relative repose in their isolation. The sense of worth they lend to the program as a whole is reinforced by red accents at the lower edge of the panels—accents picked up by the lower border of the attic and ubiquitously framing the pediment. These accents, together with the predominantly red and brown hues of the panel and frieze figures, secure the frontal plane against the recessive tendencies of the abundant blue decoration of the architrave and pediment. This is spatial checkmate, perhaps comparable to the equivocal and shallow spatial orientation of the Demosthenes. There is something of this, perhaps not so consciously done, in the figure of Hermes, (Figure 24) with his carmine tunic placing him firmly on the surface and the blue cloak over his shoulder relating to the triglyphs.

Thus in the creation of dynamic overall color contrast—superimposed, as it were, on the Four Color painting of the figural areas—there seems to be a will to experiment with color relationships for their own sake, quite apart from the deeper traditional

significance of the individual colors that is taken for granted—for instance, the value of the white background in reference to the Underworld, which is particularly evident in the panels devoted to the deceased and his pendant Rhadamanthos, the former having just departed from life and still in dress of vibrant color while the latter as a shadowy denizen of Hades is rendered in suitably paler colors (in this respect, compare my remarks on the Nekyia of Polygnotus. Chapter IV, *Panel Painting and Wall Painting: Mainland Greece, The Classical Period, The Use of White and Yellow* by Polygnotos, paragraph 5)

The foregoing considerations of color and form have led me to find an early third century date (my Early Hellenistic) for Lefkadia, as proposed by the excavator, very plausible.¹⁷ Moreover, the figure of a dead warrior in the “Bella Tumulus” at Vergina, dated by its excavator¹⁸ to the later third century, is rather comparable to the deceased at Lefkadia: likewise isolated in space—though not through architecture—and similarly flamboyant with a huge red cape draped around center-body. Yet the principal garments in blue and white are suitably colored for passage to the underworld. The total effect of the three almost “free floating” Bella Tumulus figures is calculated understatement, while that of the Lefkadia facade is overstatement, virtually *Effekthascherei*, hence two possible poles of the increasingly self-conscious quality of Greek art as this began to develop in the early and ongoing Hellenistic period.

The Still Conservative Cast of Beginning Protohellenistic

What I mean specifically can perhaps be better understood by considering how this self-conscious quality differs from what is earlier but yet not much distant in time. I shall undertake to elucidate this by comparing the facades of Lefkadia and “Philip’s Tomb” at Vergina. The scale of this latter *royal* tomb (Figure 25) seems modest, restrained, simple. Yet the large frieze—the sole figural decoration—must have seemed to contemporaries a bold, even a reckless, display of luxury perhaps beyond what had spurred Attic sumptuary laws, especially since the quality of the design requires that an absolutely top-flight artist had been employed, and also since the result would not have been safe to leave for posterity to wonder at but would need to be covered up and given over to the elements. Such romantic extravagance, from the Classical point of view, corresponds to the whole career and subsequent legend of Alexander which dominated the Protohellenistic period. Here we can see it beginning and this to me confirms the excavator’s conviction that the tomb is to be dated in the decade 340 to 330 B.C. It is beyond my reach to analyze the magnificent hunt scene as a painting—in effect a world masterpiece, I believe—especially in its poor condition. For my purposes, I am content to accept the excavator’s judgment that “we may confidently say that the whole range of color was almost entirely built around warm tones—orange, brown, reddish brown and violet purple. The background is white, flecked with muted hues of red or sometimes gray.”¹⁹ I wonder only—if it is not effrontery to judge by the color photographs—whether the “muted hues of red” do not actually go strongly toward the yellow side. I mentioned elsewhere (see Appendix A, *Mosaics*, paragraph 1) the light yellow background of the Alexander mosaic and—given the strong connection with that work proposed by the excavator, both in color choice and figural stances—it is significant that the painter of the

fresco was not satisfied with leaving the sky dead white (as might have been the Classical convention) but was extending the psychological power of color also to the atmosphere. There is a distinctly high horizon line defined by mountain peaks but between these and the figures and dark trees constituting the foreground there is no middle ground. A few details in blue or even green are local color touches in keeping with the coloration of sarcophagi (see Chapter V, Classical Period (and Protohellenistic), paragraph 2). The excavator's statement that "the tree behind the lion seems to have had dark green foliage" recalls the black poplars of Polygnotos (see Chapter IV, *Panel Painting and Wall Painting: Mainland Greece*, The Classical Period, The Use of White and Yellow by Polygnotos, paragraph 6) It is entirely plausible that in the course of time painters would "bend" the four color canon toward local coloration for elements of composition which were not quite of primary importance but not really incidental either.

The Fluid Boundary Between Late Classical and Protohellenistic

Granted that we have reasonably secure and sufficiently representative examples of color composition for the Early Hellenistic and Protohellenistic periods, is it possible to go back further in time in such a way as to see these examples in a longer perspective? Fortunately it is *if* we accept the excavator's date for the Tomb of Persephone (Figure 26) at Vergina.²⁰ His estimate of 350/340 B.C. would mean that a structure with no facade at all (entrance from the roof?) and with fresco showing the rape of Persephone would fall *just* within what I have for other reasons called the Late Classical period. Yet despite such proximity in time, the difference in the design between the Royal Tomb and the Persephone tomb (both at Vergina) is so great that we might want to put it down to the outlook of two more or less contemporary artists, each of whom is, as Andronicos points out, of the highest calibre in his own way. A very mature artist and a younger artist? In any case—and this seems irrefutable—the Persephone tomb does correspond in various ways to what we might expect of more Classical orientation. First of all, the very idea of a built tomb with an expensive frieze inside is unclassical enough by mainland Greek standards. But at least the designer did not go so far as to impose on it a showy, simulated architectural facade. That breach of good taste would come later.

Again, inside the tomb the frieze at least gives a straightforward, self-contained depiction of a myth, loosely spread over several walls, against a totally white background with only the most minimal indication of terrain under a few of the figures, and is executed closely and narrowly within the four color range. Indeed, the color effect is still one of simplicity and even purity—qualities we might easily have associated with the works of Polygnotos and Mikon (in a more linear mode). The facial expressions of the frieze seem outwardly impassive and inwardly involved in an intense soul experience, recalling the maenad of Skopas. Andronicos²¹ called attention to the quite different, outstreaming expression of the Vergina Alexander head, although for the purposes of establishing contact with the Pluto-Persephone expressions the Dareios face of the Alexander mosaic would give us the best Protohellenistic versus Classical comparison. Yet we can leapfrog here to an even more instructive comparison: the head of Pluto with that of the Lefkadia Rhadamanthos—via the detailed sketch of V. Bruno.²² In the former

(Figure 27), not only the outwardly unfocussed eyes complement the interior terror of Persephone's expression, but the (by our standards) wildly romantic, flowing hair of the two figures melts in a unity of soft transitions within an almost monochrome range of red-brown with poolings of darker brown.

By contrast, in the Rhadamanthos portrayal (Figure 28), short, quick, nervous brush strokes build up the form on a red-brown substratum liberally laced with yellow and gray. Yet for all the impression of free, loose brush work this gives, the definition of form is much tighter than in the Pluto; one might almost say that it has a cramped quality by comparison. And the brooding, but clearly focussed gaze may be thought of as streaming right across the whole facade to reach the newly arrived inhabitant of the tomb. This kind of "unified disruption" could hardly be in greater contrast to the "harmonious tension" of the Pluto-Persephone heads. We find ourselves at the point where the Hellenistic world of our historical imagination has begun, leaving Classical values as a distant and receding vision; for example, although the four color palette still rules—as indeed also in the still later Bella Tumulus figures—the quality of light shimmering on the surface of the Rhadamanthos announces a new will to probe more deeply into the nature of human receptivity to color stimuli. Put in another way, attempts to understand the physical-physiological laws of color begin. Yet it would be well to use caution at this point in making comparisons with modern trends and Bruno seems to me right in his assessment that the style of the Rhadamanthos, while in some degree painterly in relation to earlier (and some continuing) trends, hardly equals the level of what Wölfflin would call *malerisch*. And indeed the Greeks were still learning very basic color principles.

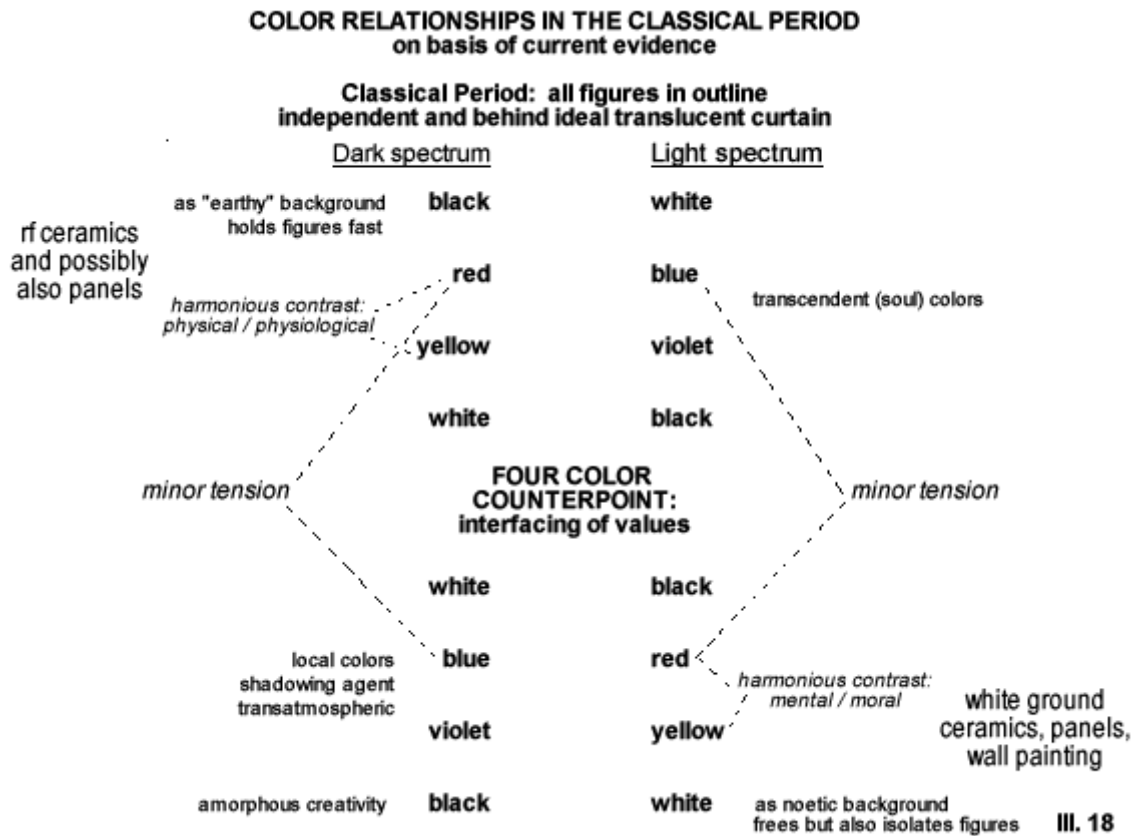
Another metamorphosed continuity between Late Classical and Early Hellenistic can be found in this context. I have already interpreted the red and blue of the garment of Hermes at Lefkadia (Figure 24) in the sense of color dynamics, but of course there is more to it. The red expresses noetic dignity, lent to the gods on occasion as we know from sculpture (see Chapter V, *Archaic and Protoclassical Periods*, paragraph 3), while the blue has to be transcendent in this context. The designer of the Tomb of Persephone had long ago carried through this symbolism in the most eminent sense by making the lowest zone of the wall red below a zone of blue as a background to griffins—profound symbols of the soul world—to support the white background of the mythological representation (Figure 26). This combination of colors of the Light spectrum constitutes a fundamental expression of the Greek view of macrocosmic/microcosmic reality. In fact, the universality of this combination, at least in the western consciousness, is demonstrated in its frequent use in flags of countries purporting to respect individual values.

The numerous fragmentary grave stelai found at Vergina and dated by the excavator to a range from Late Classical to Early Hellenistic suffered considerably from soil exposure and may not add a great deal to our theme, to judge by samples published in color. One of these²³ described by the excavator as the "most beautiful of the painted stelai", seems to have a range of color similar to but more limited than the Hunt fresco; yet it is interesting that the pediment in this case has a floral pattern reserved on blue ground while the architectural border is red. Another stele shows a painted red fillet

(instead of the blue usual on white ground *leythoi*); red also predominates in the pediment, reinforcing the dignity of the deceased. V.J. Bruno ²⁴ has sketched out the color aspects of a number of third century stelai from Pagasae and western Macedonia as far as reconstructible. There is a range of warm hues modified in some cases to a cool brown, presumably by the admixture of blue; Bruno discusses the loose flowing style in relation to the literary tradition. The stele of Hediste has been described as having “besides pure color—such as reds, yellow and blacks—mixed colors.... for instance violet (for the wall and pillars)”.²⁵ The extension of violet to such general architectural features as walls and pillars signals a devaluation of the kind of color meaning we have so far encountered and the beginning of a new attitude to colors with implications for the future of Greek painting to which I shall turn shortly.

Summary

The primary motivation of this book was not to try to determine what Cicero and Pliny meant by four color painting (unfortunately we shall never know exactly what they meant or whence they took the notion). Although my research has, I trust, thrown some new light on that problem, my own use of the term arises not from them but from the realities of actually preserved works by the Greeks from all periods. There is in these adequate evidence that some painters—of pottery, walls and perhaps sculpture—took satisfaction, at least sometimes, from using or combining all the four hues—and only those—on the warm side of the Dark spectrum. However, I favor including more than that in the use of the term: actually it should carry the sense of “Four Elements painting”. This would cover the numerous instances when painters selected two or three from the four, as in blackfigure vase painting, but also when they added to two, three or all four of the colors a subordinate amount of blue (or violet) when content called for reference to the fifth element, *viz.*, the world of the gods or even, in due course, reference to the threshold of that world (transatmospheric colors of the Dark spectrum) or to the warm colors of the Light spectrum. As a quite practical matter, instead of attempting to explain all this once more in a more condensed form, I offer here a diagrammatic explanation, keyed to the interpretive diagram (Illustration 17) based on Goethe’s color theory.



Notes to illustration 18:

Green (a mixed color) hardly emerges as separate from blue.

Red and yellow together may contrast but are still harmonious.

Blue and red together always produce some degree of spatial or emotional tension.

Massing of buildings (on stage sets) may have preceded massing of figures.

Transatmospheric blue sky conceivable in stage sets from about 400 but unlikely.

PROTOHELLENISTIC PERIOD: New or changed features. Massing of figures to facilitate effect of horizon/sky. Exploitation of four color counterpoint to achieve intricate psychological effects. Forward views imply break in translucent curtain.

HELLENISTIC PERIOD: Conscious color stasis through tension between red and blue. Experimentation with complementary colors (major tension). Architectural isolation of figures behind translucent curtain.

PANEL PAINTING AND WALL PAINTING: ITALY

Introductory observations on Hellenistic and Graeco-Roman Painting

It has proved possible to characterize, in a limited way, color practices in the third century on the basis of actual monuments as: continuity of four color orientation and an interest in recreating optical effects of lighted surfaces (skin, garments, etc.) by particular techniques. However, we may assume that much more information about painting practices would be available if we had more monuments. In looking at this question, it is surely significant that we are dealing with a sequel to what seems to emerge from the written sources as the “High Renaissance” phase of ancient painting—the last third of the fourth century—when there were also great sculptors such as Lysippos and Leochares. The Alexander sarcophagus merged these media to create shadowed, sculptural effects that are also enhanced by color. In Protohellenistic painting (Vergina Hunt and—by extension—the Alexander mosaic) there are colored skies—as opposed to the white background of the sarcophagus—as if to match by means of color the sheer physical dynamism of the sculptured figures. Yet white backgrounds were not permanently displaced from painting: They continue in the Hellenistic period at Bella Tumulus (Vergina) and at Lefkadia (tomb facade) where they facilitate a heightened psychic effect.

After the Protohellenistic period there are, in effect, no more ancient literary sources to give us guidance (in my opinion the vexed subject of austere and florid colors falls outside the theme I am pursuing²⁶ or at least I have found no basis to speculate about it). Perhaps more once existed, but the silence is eloquent. In any case, it is clear that the vitality of four color painting as an irresistibly forward rolling evolution flagged. Painters were confronted with the choice of repeating what had already been done—even to the extent of becoming a copyist—or else of seeking out new paths. Just as retardataire art is not likely to bring fame to its practitioners, neither is that art which breaks too radically with old ways, especially when this is done in settings far from the “classic centers”. If these were the circumstances, it is understandable that no particular critical appraisals resulted (except to admire the art of earlier periods, as perhaps in the case of commentators like Pliny, Cicero and Vitruvius). I should like to approach the achievements of the more adventurous group of painters mentioned above, which we can know only from the frescoes of Italy in any quantity, with some reasoning about the spectra, and then compare that to the colors actually in the frescoes.

Let us revert to Goethe’s discovery of the two spectra and the fact that the Greeks seem to have been using color in a manner consistent with the sense of those spectra. The question then arises, to what further knowledge of color principles did Goethe progress—knowledge of the sort that arises consequentially out of a holistic view of the world? From his physiological experiments Goethe gained a knowledge of color complementarities that led him to create eventually the universally valid color wheel by which the primary and secondary colors—terms that have a meaning only in this context—can be systematically understood.

Autopsy of paintings on or from Italian soil made it clear to me that in the Hellenistic period Greek—or Graeco-Roman—painters trod this same path, but important similarities and differences have to be noted. It is particularly important to notice that the Greek Classical approach to color was overwhelmingly physiological and there is no evidence I know of that any change to this took place later. It was thus in a certain sense likely that painters in that tradition would eventually make at least some of the discoveries of Goethe. However, he had the advantage of using the prism and they did not. On that basis alone I cannot postulate any serious scientific thought on the subject in ancient times, nor is there the slightest evidence for it. Aristotle went about as far as is possible without the prism and—as in so many other matters—progress stopped there; indeed, to judge by the *Peri Chromaton*, it rapidly deconstructed to virtually an anecdotal level, having nothing in common with Goethe's *Farbenlehre* but the name.

In these circumstances it would be too speculative to suggest exactly how the discoveries in question took place or when. The only given would seem to be this: in true Greek fashion painters had to exhaust the potentialities of four color painting (as sculptors had exhausted the theme of contrapposto) before turning seriously to something else. Existing evidence suggests that that point was reached some time in the third century: the stele of Hediste at least is one small sign that really serious experimentation with color for its own sake, temporarily ignoring meaning(?), took place then. By “exhausting the potentialities of four color painting” I mean turning away from the harmonious effects achievable with *krasis* of the “plus” colors (Goethe's term): red and yellow with black and white, to contrasting them quite consciously with the “minus” colors: blue and violet also with white and black in the sense of spatial tension (as in the Lefkadia facade) or direct complementation (as in the Hediste stele) to a gradual experimentation, presumably by sheer trial and error, with the optical harmonies and tensions inherent in the complete circle of primary and secondary colors as we know them. This would be the technical side of the matter. But in actual compositions with themes the subtleties of meaning inherent in the Dark and Light spectra cannot have been far away from the consciousness of really good painters. In any case, I have found that an amazingly high degree of sophistication in both respects often exists in Late Republican and Early Imperial painting.

It is well known, of course, that there is no way to make an infallible division of the elements of this painting into what is purely Greek and what is the contribution of Roman artists and patrons. Certainly the Greek tradition supplied the impetus, just as the French tradition supplied the impetus for Impressionism—with a not inconsiderable contribution by American artists and collectors. From the second century B.C. onwards the situation in ancient painting may well have been somewhat similar. Certainly even at Delos—and how much more so in Italy!—at the very least the intentions of non-Greek commission-givers must have played a significant role. Thus, while the various monuments of Italian painting can usually be dated and a certain change of “style” detected, we are probably dealing largely with changing fashions in an elite society that was both highly motivated politically and culturally pluralistic. This makes it really difficult to speak of an evolution of color sensibility in the same way that this can be found in the earlier periods. For this reason I prefer to leave that question open and

concentrate on getting a sense of the range of coloristic possibilities from the late second century B.C. to the first century A.D. Nor do I concern myself in general with the question of whether any particular painting is a copy of another one.²⁷ Such a question may be legitimate but I tend to agree with recent commentators who are skeptical that much can be achieved in that direction.²⁸ Above all, *I am not offering another art historical commentary* on the paintings, as that has already been done for generations and with particular thoroughness and acumen recently. Of course, I hope that my color analyses may supplement those interpretations already in existence or at least inspire others to pursue the color problem in a fuller way than has hitherto been attempted.

A further comment seems appropriate in regard to my suggestion that white is the dominant color and black the subdominant color of the Hellenistic period (see Chapter III, *Hellenistic Painting in the Light of the Cycles*, chart following paragraph 8). This can be justified philosophically by the consideration that white is the color of fire/*nous*, the principle which found its fullest and most free expression in this period. It can be justified coloristically by the consideration that only in this period did Greek (sc. Graeco-Roman) painters enlarge their horizon to include full and meaningful experimentation with the “minus” side of the Dark spectrum and—along with this—to include much more consciously than before the same range of colors in the Light spectrum. This latter is, of course, framed by white (Illustration 17) with transcendent overtones. It may or may not be significant that this overlaps with the victorious advance of salvation religions in the Mediterranean world which left earlier Greek values to be continued as far as possible in crassly rationalistic philosophies like Cynicism, Epicureanism and Stoicism.

But above all, this placement of white is justified by the great interest in the mystery of light itself as a factor in painting. This becomes particularly evident in a technical sense in a much more sophisticated use of black as a background foil, as in the so-called garlanded frieze. Against this background was placed a composition of illusionistically conceived, self-illuminated figures. Undoubtedly it is the striking effect of this juxtaposition that induced V.J. Bruno²⁹ to speak of the realm of the fabulous shrouded in a timeless atmosphere. In these circumstances it is clear that Hellenistic artists had learned to exploit the possibilities of the “minus” black of the Dark spectrum, going past the constrictive physical density of the “plus” black to the realm of mysterious creativity and boundlessness. A similar great conscious liberation of the artistic imagination occurred again in European Baroque painting.

By way of leading on to some representative color analyses, my conception of the historical position of Graeco-Roman painting is here summarized. I have suggested that there were *grosso modo* two categories: that of the experimental painters (progressive in terms of color usage) and that of the more traditional painters who favored copies or else adaptations (as, perhaps in Figure 29 and Figure 30) of earlier paintings that adhered to the principles of Four Color painting. These two schools are easily discernible in their extreme form, for example, in the Aldobrandini Wedding and the Alexander Mosaic, respectively (the latter being presumably a copy of a copy). Although many paintings may seem to be a mixture of these values, a propensity to one tendency or the other can usually be recognized. I do not hesitate to compare these tendencies, in fact, to the

situation in Hellenistic sculpture (without claiming that the chronology is the same): the Neo-Attic school clung to Classical values, whereas the experimental school, best represented by Pergamene sculptors, pursued new and striking effects overall but especially in free-standing figures.

To facilitate understanding of the technical aspects of color in these two tendencies and to indicate exactly how far the painters went in their manipulation of principles that were apparently never conceptualized, I offer a discussion of those principles in Appendix A. It is intended for readers who wish to know how I arrived at the color analyses.

Finally, I wish to make it clear that these analyses of works I have been able to study personally are presented solely for the purpose of rounding out the *implications* of the Greek experience of color. They may suggest a direction for future studies in the art of the Roman world, where they belong historically—and in that sense exceed the theme of this book.

Color Analyses of Selected Graeco-Roman Wall Painting

The order of presentation follows the chronological succession suggested by Karl Schefold.³⁰

Second Style

Boscoreale (Metropolitan Museum of Art, New York)³¹

Cubiculum

The buildings are, if not nearly white, painted in warm, light colors; light brown, cream, light rose. Marble columns are a fairly well saturated reddish purple and the same color is picked up in marble framing panels of the dado (surrounding greenish blue indeterminate scenes). Carmine red appears on walls enclosing the gate. Over the scene is a considerable extent of light blue sky lending strength to the illusion of being out of doors. There is no strong impression of fading of colors except in the green of foliage on sides of and behind central garden walls, green being perhaps the least stable color in ancient painting. The remainder of the dado is in the brown to cream range.

Although the technique of this room is not classifiable as Four Color painting because of the extensive blue sky, there is nevertheless a strong impression of that tradition in the total effect, since a harmony of warm colors throughout the scene and dado appears to have been a goal in the planning of the decor. An obvious source for this, in theory at least, is fourth century stage sets which would probably have had a similar coloration but without contrasting sky. If this supposition is correct it still does not imply that the designer of the room necessarily meant the scene to be interpreted literally as a stage set.

Garlanded Wall

A huge thick garland of dark and light green leaves and assorted fruits dominates plain cream-brown panels. These greens have remained stable in general. A simulated marble

cornice above the panels consists of blocks of the same color as the panels alternating with saturated blue panels below several strings of narrow ornaments such as dentils.

Figural Walls

In striking figural scenes very large and ample female forms in flowing cream to white garments are seated before a red background—plain or with indeterminate representations—while another figure with shield stands. The red background, being very strong, has called forth its complementary green in the undergarments of the women, on chairs and in other details. This red-green opposition dominates the aesthetics of the entire figured wall. In the garlanded panel the greens were a suitable local color and there are no disturbing contrasts but in the figural scenes the artist has deliberately invoked the dramatic, tension-producing quality of red as combined with green to draw the viewer into the destinies of the persons represented.

Odyssey Landscapes (Vatican Museum)³².

I–II: yellow, shading into brown, predominates and is contrasted with light blue for sky, water and shadows (Figure 31). The yellow-blue dichotomy yields a classic description of mythical (ideal) earth and its surrounding sphere of the gods in Goethe's sense that the two basic colors are yellow (on the plus side) and blue (on the minus side: *Farbenlehre*, 696). The same effect is heightened thematically in III–IV where water and earth are shown more extensively. In IV particularly the blue sky is reddened slightly at the horizon; this touch suggests nature observation. Further, red as enhancement of yellow combined with the blue sky characterizes this blue as more transatmospheric than transcendent, though the latter quality is immanent in the entire frieze as a transposition of poetry. V: again there are colored shadows (Circe's portal reddish, the portico bluish) which go as far as very dark blue (though not black or if black not extensive). VII–VIII naturally have the deepest shadows, and the absence of black gives the scenes a certain lightness, increased in mood by the lack of logical treatment of shadows. The framing of the entire series is by pilasters of darkest purple with a strong three-dimensional effect.

Aldobrandini Wedding (Vatican Museum)³³.

Although the light seems to be coming from the R throughout the scene, this is more to be deduced from the shadows than from any impression of a brightly lighted space (Figure 32).

Since a supposed shadow to the R of the extreme R figure has been used as major argument³⁴ in discussing the composition, it is necessary to digress briefly on the subject of shadows. On the whole, Roman painters, following Greek precedent, were content to indicate contrasts between lighted and shaded areas within the contours of the object so affected.³⁵ However, a few painters went beyond this to indicate a cast shadow of sorts in the form of streaks *on the ground* below human figures or as darkness pooling under a low object. In the AW the lifted foot of the lady leaning on a pillar casts a short, almost symbolic shadow like a wedge to the R, not picked up—it simply ends abruptly, and the matron casts an even shorter shadow to the R at the level of the hem of her dress. One

can say that in principle ancient artists did not understand, or at least pursue, the phenomenon of shapes repeating themselves in distorted form as shadows on neighboring surfaces.³⁶ Thus von Blanckenhagen's claim that a tiny shape at the R of the AW is a shadow cast by another figure excluded from a larger composition is exceedingly controversial, not least because the shape is pointing the wrong way to have come from a distant figure (like the leaning lady) and, if from under a closer figure (like the matron), some part of that figure would certainly appear with it. Furthermore, it would take an eccentric—if not irrational—copyist to show a blob connected with a figure he was deliberately excluding from his “copy” of another composition. What von Blanckenhagen is referring to may be part of a general discoloration in that section of the frieze, for by his own admission there is no evidence that the AW was not complete as found. Since he also admits that the somewhat cut-off figure to the L of the AW is not significant proof of truncation of something else, we are free to regard the scene as an original composition with its own meaning, even though—like many of the great European paintings—“quotations” from works of other artists may have been taken into it. In fact, von Blanckenhagen correctly stresses that the AW is a powerful compositional unity, but he is committed to the conviction that no artist of the Augustan period could have been the originator of it and therefore demands that we seek a Greek master behind it.

A formal unity is given the painting by the long stretch of light blue sky and the prominent dark blue marbled border. The long wall is violet L and white R (short stretches): it divides up the groups of figures according to their activity without disturbing the unity of the composition and above all assures the transcendental nature of the whole scene. The effect of open depth is achieved to a modest extent on the R by the progression violet-white carrying the viewer to the green-blue background. In this connection the foreground position of the L group and the more distant placement of the Muses should be noticed. More or less in the center of this progression is the main group.

On the R is the group of three figures now identified as Vesta and two divine musicians. The subtlety of the color composition is most interesting here, for the Muses are appropriately garbed in purple and (blue?) white, respectively—fully transcendental colors. Vesta, however, wears a yellow costume with an extraordinary feature: a strip of white shows beneath the waist overfold. This is hardly to be explained realistically. The white connects her to the musicians as a supersensory threesome assisting at the wedding and—on the other hand—connects her with the white costume of the bride and the white over-cloak of the important woman on the L heating water. In these the white, though worn by human beings, transcends the noetic level through the presence of Venus and must have the implication of godlike purity, chastity, about to be (lawfully and necessarily) reduced to an earthly condition. This condition is represented by the older woman, the matron, whose undergarment, in yellow, indicates that earthly condition, while the white cloak represents symbolically—for the purpose of this ceremony—the state the bride is in and the matron herself once was also in. In Vesta, of course, the undergarment showing is white, her true permanent state of divine purity, while the outer dress in yellow represents her sympathetic participation in such earthly affairs as nuptials. That is, it has the advantage of referring to her function as the

guardian of the hearth, the center of earthly life, which she is, in fact, here attending to. Again, moreover, her yellow echoes the concentration of yellow on the L, in the underdress of the white cloaked woman and the dress of a humble attendant in the background, no doubt also to be interpreted as an earth color. Color rhythm meshes perfectly then with meaning. Not to be overlooked is the elegant casualness of Vesta's dress, which exposes much of her back heroically, just as Venus and her attendant display heroic nudity. Even the kerchief on Vesta's head is a casual touch, as she attends to her "kitchen duties".

But there is yet another coloristic subtlety. In typical Late Hellenistic fashion, the purple of the central muse's garment can be said to have called forth the complementary color, yellow, in Vesta and this effect is actually continued in the loosely worn cloak of the seated man, and particularly in his purple headdress with a yellow fillet. Thus he too is drawn into the transcendental sphere on his L (in which the background blue can be included owing to its proximity to the muses). Thus he can be seen either as divine (Hymenaeus, Dionysos) or as human in the grip of divine inspiration. The alert, attentive position of his head gives the impression that he is more concerned with what is being whispered to the bride than with her person. This impression is strengthened by the repetition, albeit in much less saturated form, of the color of his cloak on the garment of the high being (Venus) who is instructing the bride. Thus surrounded, the white clothing of the bride refers unmistakably to divine inspiration.

Reflecting the bride's dress is the white cloak of the main figure on the L, as noted. Besides her undergarment, also the cloth under the basin is yellow. The strongest indication of an earthly quality in the center is the alternation of yellow and deep, luxuriant blue on the wedding bed, with a folded yellow cloth on top of a yellow undermattress. The coloration of these purely physical objects points to the Dark spectrum and restores the impression of an earthly wedding after all, which now seems strengthened by the realistic anatomy and sensual flesh color of the "bridegroom". Nevertheless, there is more than enough indication that the transcendental aspects of coming nuptials constitute the real theme of the painting. The use of colors allows us to identify all the figures on the L, with the possible exception of the woman leaning on a column, along with the bride as earthly. The leaning woman shares divine nudity with Venus, which is probably decisive, but her garment is the same sensuous blue as the bed cover; I see this as "poetic license" required for color balance. All the other figures on the R are divine, except that there is ambivalence in the depiction of the seated man. The colors say more likely divine, but the purple here could conceivably refer to very high position in the worldly hierarchy—in the sense that aristocratic Romans of that time had themselves portrayed with the bodies of gods and their own heads.

Much of the content, then, of this lovely painting is expressed in terms of color harmony; in its cosmic extensivity this harmony united beauty and (narrative) meaning. It would indeed be difficult not to recognize in this most unusual frieze a Greek brilliance in the feeling for expressive color just as in the (oft noted) feeling for Greek sculptural form. But the former quality is paid so little attention that most discussions of the work begin and end in analysis of various parts of the composition which are assumed to be lifted from specific Greek prototypes and fitted together. In this

way the very real creative achievement of this Augustan painter as a colorist is not apprehended. Who was he? Here we have one of the most beautiful paintings of the first truly classicistic age from an aristocratic residence of the capital of the world—a Raphael-like situation, but Raphael's counterpart—like the corresponding sculptural genius of the Prima Porta portrait—remains in impenetrable obscurity. At any rate, how this painter felt about coloration is *at least* as significant as how he dealt with earlier sculpture (in or out of painting)—and for connoisseurship I think more important. If the figure types are eclectic, then it is impossible that the overall color pattern could have been taken from such varied sources. Out of late Hellenistic color principles this painter seems to have created in a personal way a harmonious unity out of what his commissioner required him to excogitate and bring together from suitable compositional sources. Only on this basis can one comprehend the greatness of this painting which can be compared unhesitatingly with masterpieces of the Renaissance, as demonstrated by the procession of great painters of later ages who sought out this creation of an ancient colleague to study and copy. In order to bring out the spiritual quality of this Augustan master, and with him the whole ancient vantage point in painting, I shall discuss one of the many later imitations of his work:

Galleria Doria Pamphili: anonima copia S. VXI delle Nozze di Aldobrandini. Già attribuita à Nicolas Poussin.³⁷ The painter opened the picture with a high sky, eliminated the border and replaced it with a very broad, brownish black strip (Figure 33). He used highly saturated colors and introduced gray to black shadows. The blue-purple-white unity of the central group disappears totally: both seated women seem to be dressed in white while the standing woman is given a grayish blue/green garment matching the bedclothes, on which a great, dirty yellow cloth has been laid (the painting may need cleaning but it does not appear to). The L wall matches the garment of the standing woman, the R wall is slightly reddish while the floor of the foreground is a highly saturated violet. The seated man seems to be resting in semi-darkness.

In contrast to the almost joyful lightness of the ancient painting—lacking as it does a real atmosphere—here the chiaroscuro atmosphere is all-important and enfolds the figures so that deep pools of shadow arise—so that, for example, the wall becomes essentially one with the figures instead of standing back from them. The ancient figures, especially the standing woman, were near to the border of the frieze and the others stood well back from it. The later figures have all been retired in a single unit to mid-ground and behind them the expanse and many colors of the sky create further depth. The dark wide strip underneath the scene has a rather mysterious quality.

Thus the later painter had no interest in carrying over the colored shadows of his predecessor but turned the scene entirely around in accordance with the principles of chiaroscuro. It is not his greater consequentiality in dealing with shadows that creates the salient difference, but his whole concept of how color and space go together. The ancient painter operated with fixed (*gewordene*) prismatic colors, which literally still had in them much of the old self-illumination (*Eigenlicht*), and—as expected in the Hellenistic age—made much use of white and less of black. The later painter by contrast was extremely conscious of the origination of colors from the reciprocal effect of dark and light, so that he created self-generating (*werdende*, incipient) colors with much use

of black. Against this new stage of development of the *nous* (I-principle), the ancient sense of neutrality toward (evolving) time stands out clearly. For the later painter, *Le Nozze di Aldobrandini* could at most represent something vaguely symbolical (just as for us still), yet he looked back yearningly to the old, seemingly objective norms and forms of beauty and awoke aesthetically in seeing them.

Casa della Farnesina (Terme Museum, Rome)³⁸.

Cubicola E 16: the very delicate figures are clothed in golden yellow, lilac, green and blue/green. Shadowing of folds follows the same principles as those noted on Pompeian frescoes (see Appendix A, *Observations on the Technique of Paintings and Mosaics*, Complementary Colors, paragraph 3), above all the use of dark violet on lighter grounds. The difference of this shadowing method from the basic red of architectural parts is clear, unequivocal and not to be overlooked: violet was intended (in the scenes), not dark red. Cubicola B: the background of the wall is dark red with light green architectural details (figments). Below, black oblongs and small yellow pictures. The enframed center picture has delicate figures on a white ground. Thus, the contrast red and blue/green is a basic sign of the times in Rome also. Nevertheless, the use of colors can be extraordinarily complicated in the Casa della Farnesina and a fuller treatment would be desirable: blue, for instance, appears in both high and low saturation on the same wall. The painting and stucco work from this house are of very high quality but not necessarily superior to the best in Pompeii.

Third Style

Boscotrecase (Metropolitan Museum, New York)

Mythological Panels

Andromache and Perseus: in this painting a bluish green or greenish blue hue, varying in the proportion of the two, creates the mood and satisfies the substance of the story, whereby it is not clear where (or whether) earth, sky and sea have their separate spheres. For all seems to be blended together in a seamless unity even though the color gradations are numerous. This masterly blending of the transatmospheric and transcendental implications of the minus color scale creates a dreamy, surreal realm of “color poetry” suitable to an “inwardized” appreciation of the myth. The effect is made particularly lovely by the fact that the greenish component of the background has called forth a mauve (to mauve-brown) hue for the garments, rocky cliff and other features. All this makes for a vague, fantastical atmosphere barely impinged on by the (realistic) skin color of the human figures. *Polyphemos and Galatea*: the style and coloration of this are the same as those of the foregoing. However, there is a more focal concentration of human figures at lower center of the panel and these, owing to the relatively large area of exposed flesh in warm shades, tend to dispel to some extent the magically removed quality noted in the *Andromache* panel.

Black-Background Panels

In quite a different key the surreal mode is continued in a number of vertically oriented black panels with small delicate motifs of buildings or figures. The phenomenon of self-illumination manifests strongly here exactly because the black background absorbs or stops the presumed light source, which in any case is not felt to be very powerful. Thus, from even a short distance away, the representations give the effect of not yet (or no longer) physical light-globules floating in the inscrutable blackness of becoming and passing.

Conclusions

Probably the most important aspect of the autopsy of ancient color usage reported here concerns the definition of ideas about light-dark. The natural tendency in modern times is to use gray and black straight (or as a shading medium for chromatic colors) for atmospheric shadows or darkened atmosphere. This is, however, virtually unknown in preserved frescoes and could only be assumed, if at all, indirectly on the basis of a few mosaics (as in Figure 34) which may be copies of paintings. In the latter, even the most advanced attempts at atmospheric effects, as in the sacral landscapes (Figure 36) and night scenes,³⁹ the effect is mostly achieved through the skilled use of complementary contrasts in various saturations or shades. I take it that this is precisely what Pliny the Elder was referring to when he wrote: “in the course of time the art differentiated itself and discovered light and shades, *with the alternating contrast of colors heightening the effect of one and then the other* (emphasis mine).”⁴⁰

The deeper reason for this could lie in the fact that the ancients at all times experienced more powerfully the corporeal presence⁴¹ of what was represented than the physical space in which the representation was contained—with corresponding unawareness of the manifold implications of that space which are second nature to us. In this sense, the practice of light-dark resembles that of ancient perspective: it was not thought through to the final consequences.

The use of variously saturated chromatic colors or mixed colors to show the more illuminated and less illuminated surfaces of an object (animate or not) in atmospheric space seems to have been the normal Late Hellenistic practice. In fact, however, the self-illuminating quality of earlier colors was still deeply fixed in artists’ consciousness and hindered any consistent progress toward rational chiaroscuro. In effect, the ancient painter paid more attention to light in its basic aspects than to the space that contains objects. Indirect but powerful evidence of this is given in the words of Pliny the Elder as he continues his thoughts in the passage cited above:

Afterwards *splendor* was finally added, which is something different from “light”. Those qualities which exist between these (light and *splendor*) and shades is called *tonos* (“tension”), while the joining together and transition of colors is called *harmoge*.

We have already had occasion to refer to a certain parallelism in the nature of shadow-giving between the Pompeian and the Impressionist painters: in both cases light was more important than space.⁴² Although other conditions are quite heterogenous in the

two cases, in both the result was a tendency to avoid black for shadows. In neither case is that tendency mere chance or arbitrariness, but rather the expression of a spiritual crisis in the respective eras, for in both cases black had been a vital component of the preceding artistic scene (in different ways, of course: see *Chapter IV, Panel Painting and Wall Painting: Italy*, Introductory Observations, paragraph 8).