

Art, Architecture & Art History

Greek Color Theory and the Four Elements

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Appendix A: Observations on the
technique of paintings and mosaics

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APPENDIX A.

OBSERVATIONS ON THE TECHNIQUE OF PAINTINGS AND MOSAICS¹

Painting

Background Color

Background color of panels and friezes except for landscape with visible sky. The following hues were employed:

- White
- Light yellow (buff)
- Light yellow/red (orange): apparently continued from the identical color of simulated marble on the plinth.
- Red (cinnabar; orange/red): very common, combined with blue/green details.
- Black: less usual than red.
- Blue-green: usual for night scenes but can occur also in a quite unsaturated state to appear neutrally as a kind of gray-green, as for example with the Three Graces (inv. 9231 and 9236=S.340), where this color represents nature (hills and flowers in a vague form without picked-out details, especially successful in 9231).

Complementary Colors

In addition to the more or less conventional background colors listed above, another principle comes into play (although it is not always clearly followed), by which other colors can take over the background. That principle is the optical phenomenon of the laws of complementaries as illustrated in successive contrast (see Appendix B, *How Do Newton and Goethe Compare...*).

If one follows the suggestion implicit in this study that the earlier Greek artists experienced their own earthly existence through a strictly circumscribed (hence guided, imposed) use of the Dark spectrum, then it may seem that in the later phases of their culture Greek artists (and doubtless some of other nationalities, such as Romans) felt a

certain release and expanded their horizon on the basis of self-motivated discoveries of the laws of color relationships, and, moreover, that they became more conscious of pitting the values of the Dark and Light spectra against one another. In this view the Four Color doctrine as well as the Four Elements theory could be understood as divinely inspired intellectual and moral instruction (it is difficult to believe that Empedokles or Plato would have taken exception to that formulation). On the other hand, the free manipulation of complementary colors indicates a beginning of experimentation, of self-instruction. In other words, the contrasts to be discussed below must have been sought first of all for the sake of new and striking visual effects; for once artists left the safe ground of the “warm” colors, that is, red and yellow of the Dark spectrum (Illustration 16), they would have had to fall back on their own culturally implanted instinct for polaric reciprocities (Empedokles’ Love-Hate). Note that Goethe specifically called red and yellow “plus” colors (his paragraph 794 of Didactic Section) and called blue and violet “minus” colors (his paragraph 777). But once they gained the new ground, basic aspects of the deeper meaning inherent in the relations of the two spectra must have glimmered in their consciousness—sometimes quite vividly, as I have noticed. Yet I cannot suppose that any theoretical genius of that age went on to produce the basic color-wheel, as Goethe did for the modern age. Just as in the case of the laws of perspective, the laws of color seem to have been grasped as a somewhat inchoate glimpse of things-to-come.

Thus we find frequently the approximate complementation of blue/green (or green/blue) and cinnabar (or other slight variations in the red range) e.g., *Menade dormiente* (inv. 112283=S.355) or *Dionisio affare ad Arianna* (inv. 9286=S.342), both Casa del Citarista. A second contrast is given by the use of violet for shadowing yellow clothing (violet can also be used purely in terms of color value: lighter for the garment, darker for the folds). Moreover, the two complementaries just mentioned can occur in the same painting, so that the color combination violet and green arises by proximity—and then occurs in its own right as a cherished feature. Blue (i.e., dark blue) is also used for the folds of green garments. From all this emerges the series yellow, green, blue and violet as particularly suited to garments; they occur as pure hues with or without shadowing and, doubtless rather consciously, in an aestheticizing sense (some are very beautiful). Despite this, I believe that—on the whole—usage is generally in keeping with the prismatic polarities worked out in Illustration 16. Green=violet: *Perseo e Andromeda* (inv. 8996=S.333); *Amore di Ares e Afrodite* (inv. 112282=S.355). Green=violet and purple: *Eros tra Paride ed Elena* (inv.114320=S.355) Casa dell ‘Amore Sfortunata. Yellow=violet: charming yellow/gold garment of Andromeda against light blue/green background, contrasted with dark violet garment of Perseus (inv. 8998=S.333) Casa dei Dioscuri. *Citareda, Stabiae* (inv. 9623=not in Schefold): two figures with yellow garments, one with green garment, main figure wears white; background (wall with pilasters) is lilac. Yellow/gold=blue/green: *Teseo uccidore del Minotauro* (inv. 9043=S.355) (Figure 29). The color harmony and its effect have a striking similarity to Raphael’s *Galatea*. Was that painting influenced by ancient colors?

Aspects of Red

Although violet is by far the most usual color for shadows, in at least one case red/brown is used for this purpose. Its effect is disappointingly monotonous in comparison with the wonderfully enlivening quality of violet on the color of flesh. Cinnabar as pure drawing line (on marble) also occurs with rather the effect of Renaissance sepia drawing. Of highest quality in this category is *La Lotta dei Centauri* (inv. 9560=S.350), reminiscent of the best Renaissance work; not far behind is *Le Giachotore di Astralogo*.

Four Color Painting

Above all one thinks of *Teseo Liberatore* (Figure 30), *Arcadia* and *Chiron e Achille*. Yet in all these, green does occur (resp., behind the boy, on rocks—gray-green—and on the ground). It seems, therefore, that from a certain time onward the law of complementaries exacted homage of some sort. That point was marked by discovery of the transatmospheric colors via green as the real bridge between the warm and cool colors (link to upper half of Illustration 15 bis); but green itself seems to have been the last of the colors to be taken notice of. I refer here, of course, to the conscious use of the transatmospheric colors blue and violet to shade flesh representation (in lieu of brown or black). Yet an argument can be made that violet with flesh also has a transcendent connotation; to what extent may the artists have been aware of this? To what extent, in other words, may we assume that by enhancing the physical presence of a figure coloristically the painter was also aware of a supersensory value of his colors? In her study of hero-figures, especially Theseus, who was also a king (and thus representative of the divine world), I. Scheibler² seems to touch on this problem:

In all the pictures a rich, dark skin color, dark red garments and rather crisp modelling make the figures of the heroes stand out more corporeally from the general composition than do the other figures.

Further she attempts to connect the color of the heroes' cloak with Tyrian purple, in order to heighten the value of the color for the iconography of heroes.³ Is this going too far? At any rate, she does not sufficiently consider a possible double intention of the artist in using a single color nor the nuances of red and violet in the Light spectrum. For red is also an aristocratic color: *Dionisio tra Apollo e Venere* (inv. 9449=S.346), where Apollo wears a cloak of brilliant red. On the other hand, the *Medea* of the *Casa dei Dioscuri* (inv. 8917=S.331) is dressed in violet: is this ironic (meant tragically) or is there in this case a sense that even this color can belong to the purely physical scale, making *Medea* starkly, almost defenselessly unprotected and deserted? For certainly the very theme prohibits dismissing her striking dress as conventional local color.

In sum, then, I find it inevitable to assume that—even in Four Color painting—in the colors selected for narration a certain sense, instinctive or otherwise, of the transcendent or noetic value of those colors is implied. For example, the gold/yellow garment of *Andromeda* (Figure 29) announces the tender frailty of the emerging I-consciousness being threatened by animalistic forces and being rescued by divinely inspired bravery (*Perseus* wears violet). Green seems in most cases to be applied to

subordinate or explicitly earthbound types. (Dark) blue is appropriate for female divinities (Venus: inv. 9449 mentioned above, and in that very scene Apollo has a blue/green aura equipped with sunrays! The dovetailing of the two spectra could hardly be better demonstrated).

Mosaics

The “Alexander Mosaic”⁴ (Naples National Museum of Archaeology) covers an entire wall like a Baroque painting (Figure 17). The individual tesserae are incredibly small and fine. Black and also a consistently medium gray are used for shadows. But also a medium red and a highly saturated dark red are used for the same purpose, so that it is not possible to postulate a consistent system. Problems arise from this. Did the original painting behind the mosaic have these two types of shadows? And were its shadows really dark red and not violet, as otherwise usual in Pompeian painting? The air in the mosaic is a light, actually very light, leather-yellow, distinctly differentiated from the white of the Persian king’s shirt (undershirt). On the whole the coloration can be described as restrained, severe and thoughtful, all of which is perhaps archaistically heroic. The light background allows the colors to emerge clearly without shining. The question of light source is not easy to resolve because one cannot get the necessary standoff in the space where the mosaic is exhibited.

Chiaroscuro: only in mosaics does this seem to have occurred (occasionally) in the sense of a certain probing in the direction of darkening the air, or part of it. Two examples are of interest at Naples among the many that adhere more or less faithfully to the rules of wall painting. One⁵ is a riverscape which begins at the base with a broad black stripe, then rises in the general pattern of a grill of expanding green stripes (darker and lighter and filled with green and dark brown). Above all this are fish, water fowl and birds of prey clutching fish; the total effect coloristically is rather like that of a 19th century (A.D.) painting, though harsher and more abstract and with surrealistic elements. Unnumbered:⁶ this well-known scene with actors, garlands, etc., in an architectural setting (Figure 34) not only has black for shadows but also a dark atmosphere enveloping the figures quite in the sense of European painting. Especially striking are the darkened legs of the actor and the space under a chair. The treatment of the dark is sufficiently skillful as to suggest a school of mosaicists who experimented with light-dark.

Two mosaics in Rome are also germane to the discussion. A later mosaic in the Terme Museum (Figure 35)⁷ reproduces the same alternating dark and light stripes in a riverscape as in Naples (above). The dark portions of the scene in this case are dark blue, although black is used for outlining figures or for setting accents (but not for shadows). Vatican Museum: a mosaic “dall Aventino”⁸ with animals of various sorts and exotic plants is a landscape of excellent quality. Although colored shadows are generally found, black is sometimes used for shadows in darker portions of the picture. As at least a partial explanation for this phenomenon, it may be recalled that most mosaics simply reflect the four color system, and that black in all cases played an important role in borders and outlines (there is, of course, a category of purely black and white mosaics).

Thus the mosaicist was pulled in two directions. The painting he was copying doubtless had colored shadows; but in his own medium he automatically used much black. The pull could also work in another manner. In many mosaics (e.g., in the Terme Museum) the mosaicist was plainly following the four color system in general but was pulled by the power of the complementary principle followed by his painter colleagues to let his normal reds call up green to be used in a subordinate role (see Chapter IV, *Panel Painting and Wall Painting: Italy*, Color Analyses, Boscoreale, paragraph 4).