GODS IN COLOR
PAINTED SCULPTURE OF CLASSICAL ANTIQUITY

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No original work has survived that may with certainty be attributed to Praxiteles or to other well-known Greek sculptors, be they Myron, Polykleitos, Pheidias, Skopas, or Lysippos. This is true for marble sculpture, but even more so for bronze. Many artists of the classical and Hellenistic periods (480–31 BC) favored bronze as the material for statues. Because of the inherent value of the metal, few ancient bronzes are extant today. Only fragments remain of the even more precious chryselephantine statues of gold and ivory, such as Pheidias’s colossal cult images of Athena and Zeus. For information on all these lost masterpieces, we depend on ancient texts and the evidence of marble copies or variants of Greek statuary made in the Roman period. A good example is the statue of Meleager, preserved in multiple copies and attributed to Skopas of Paros, a contemporary of Praxiteles, on the basis of his historical and stylistic considerations (fig. 1). The situation is much the same for Nikias and his fellow painters. Their works are praised and described by ancient authors, but modern scholars are left to search for reflections of their oeuvre in painted pottery, and in later mosaics and wall paintings.

The written testimony about painted stone sculpture and statues made of bronze as well as gold and ivory undermines the notions of white marble sculpture and pure form traditionally associated with classical antiquity. Past and present archaeological and scientific observations point in the same direction, and lay the basis for increasingly plausible reconstructions of the colorful appearance of ancient sculpture.

FIG. 1: MELEAGER, Roman copy after a Greek original of c. 340 BC. Marble, h. 122 cm. Arthur M. Sackler Museum, Bequest of Mrs. K.G.T. Webster, 1926.48.
COLOR LOST AND REDISCOVERED

The ideal of unpainted sculpture and of unadulterated contour and volume took shape in Renaissance Rome, inspired by the finds and early collections of classical marble statues, such as the *Laocoön Group* discovered in 1506. These were denuded of their painted surfaces by prolonged exposure to the elements, burying conditions, and often, most likely, a good scrub upon recovery. With the works of Michelangelo, white marble sculpture was established as the noblest of arts. It was greatly admired in the neoclassical period of the eighteenth and nineteenth centuries, when ancient Greek sculpture was regarded as the ultimate expression of “noble simplicity and quiet grandeur,” to use the famous phrase of the German art historian Johann Joachim Winckelmann.\(^2\)

With the development of archaeology as a discipline and increased excavation in Greece and the eastern Mediterranean over the course of the nineteenth century, several examples of marble sculpture with significant traces of paint emerged. Important finds included the pedimental sculpture of the Temple of Aphaia on the Greek island of Aegina (detail on cover), unearthed in 1811 and acquired by King Ludwig of Bavaria; a number of statues from the Athenian Acropolis (fig. 2); and the so-called *Alexander Sarcophagus* from the royal necropolis of ancient Sidon, Lebanon (fig. 3). In general, the best evidence for painted surfaces comes from the archaic period of Greek art (600–480 BC), when marble and limestone were the sculptor's main materials, and from the sculptural decoration—both in the round and in relief—of buildings, such as temples, and funerary monuments, for which stone was commonly used in all periods of ancient art.

The new evidence for painted marble gave rise to colorful reconstructions on paper, especially of Greek temples, and a lively discussion about the extent to which the ancients would have colored their sculpture—and whether modern sculptors should follow their model. Antoine-Chrysostome Quatremère de Quincy opened the debate in 1815 with his treatise on Pheidias’s statue of Zeus at

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**FIG. 2: “PEPLOS” KORE**, two alternative color reconstructions: with bow and arrows as the divine huntress Artemis, and with her dress painted in yellow ocher.

**FIG. 3: “ALEXANDER” SARCOPHAGUS**, detail of color reconstruction: a Persian and a Macedonian fighting.
Olympia. In the mid-1800s, the English sculptor John Gibson applied paint to his works, most famously the so-called Tinted Venus. Consciously following in the footsteps of Praxiteles, he stated: “The moderns, being less refined than the Greeks in matters of art, are, from stupid custom, reconciled to the white statue. The flesh is white, the hair is white, the eyes are white, and the drapery white; this monotonous cold object of art is out of harmony with everything which surrounds it.”

In the same spirit, Georg Treu, director of the antiquities collection in Dresden, exhorted modern sculptors to paint their statues. By the end of the century, attempts were made in various places, including Boston and Chicago, to recreate the effects of color on classical statuary using painted plaster casts. The Museum of Fine Arts in Boston held an exhibition on this topic in 1891, and, encouraged by widespread interest, engaged the painter Joseph Lindon Smith to color casts of the Venus Genetrix and the statue of Hermes from Olympia, then attributed to Praxiteles. Smith was careful to record discernible traces of pigmentation in his watercolors of Greek sculpture (fig. 4).

Polychromy in modern sculpture hardly startles the contemporary viewer, but we still have not come to terms with the painted marble sculpture of ancient Greece and Rome. With only meager traces left on the surface and the occasional drill hole for an attachment, it is difficult to imagine a fully colored sculpture, complete with additions in other materials, such as metal attributes or eyes inlaid with glass and stone. However, modern technology can now make visible what cannot be seen with the naked eye, and the color recon-

FIG. 4: Joseph Lindon Smith,

FIG. 5: STELE OF ARISTION,
detail. The lion’s head on the shoulder flap is clearly visible in raking light.
structions in this exhibition are based on information resulting from detailed scientific study and analysis. These statues and reliefs were chosen for reconstruction not because they represent common sculptural types, as was the case for the nineteenth-century efforts in Boston, but because they preserve extensive painted remains.

**REVEALING COLOR THROUGH SCIENCE**

A simple but effective tool of archaeologists and conservators looking for evidence of painted decoration is raking light, which illuminates a surface from the side rather than from above. It can reveal sketches in the form of incised lines (fig. 5), and can highlight differences in the weathering pattern of the stone’s surface caused by uneven application of paint or use of different pigments. On the highly stylized statuettes that were carved in the third millennium BC on Greece’s Cycladic Islands—a prime source for white marble—raking light brings out formerly painted details as shallow reliefs. Raised lines remain where thick blue paint was used to render eyes and hair (figs. 6, 7). More complicated methods of study include examination and photography under ultraviolet light, which can show paint “ghosts,” slight variations in the surface structure of the stone (fig. 8).

Ancient texts provide detailed information about the pigments used in antiquity. Actual pigment remains may be identified by various techniques, including polarized light microscopy, X-ray fluorescence and defraction analysis, and infrared spectroscopy. Most pigments were of mineral origin, such as red and yellow ocher, the bright red mercury sulfide cinnabar, the copper carbonates azurite (blue) and malachite (green), and the synthetic Egyptian blue, a copper calcium silicate. White was derived from lead or lime, black from carbonized bone or other materials. The use of organic pigments, such as red madder and murex shell purple, is also attested. Binding media were organic and tend to be harder to identify; there is evidence for egg, casein, and wax.
The example of the Cycladic statuettes shows that sculpture in the ancient Mediterranean received colorful decoration from very early on. In Egypt, wall reliefs and statues of stone and wood were painted in a range of colors similar to that of the tomb paintings. In Mesopotamia, the palaces of the Assyrian kings were decorated with extensive wall reliefs, whose colors are by now almost entirely faded. Wall paintings and decoration executed in glazed terracotta, as on Babylon’s famous Ishtar Gate, give us some idea of the original effect. Following the Assyrian example, painted reliefs were an integral part of palace architecture in the Achaemenid Persian Empire (550–330 BC). A fragment of a relief from Persepolis, one of the empire’s capital cities, preserves visible traces of red, green, and blue pigment (fig. 9).

Whereas sculpture and painting have often appeared as separate, even irreconcilable, modes of representation to the modern mind, the evidence for painting on ancient sculpture suggests that it was informed by artistic principles similar to those guiding the creation of the sculpture itself. The geometricized features and ornaments painted on the Cycladic statuettes conformed to their highly stylized carving. On most Greek sculpture of the archaic period, it seems that clearly defined color fields and linear detail corresponded to the schematic forms of body and dress. In the classical period, when sculptors became interested in modeling with light and shade—well illustrated by the rippled dress of many Parthenon sculptures—a parallel trend can be expected for the painted decoration. In fact, the painter Nikias “paid attention to light and shade” and tried to achieve the appearance of depth. Another painter allegedly created such naturalistic grapes that they attracted birds, but was himself fooled by the realistic curtain of a colleague. The painterly shading and highlights used to achieve these illusionistic effects cannot normally be reconstructed from the scant remains of pigment on a sculpture’s surface. Wall painting and painted terracotta figurines provide some guidance, such as indicating a trend toward mixed, pastel colors in the Hellenistic period. In general, however, modern reconstructions of the painted sculpture of the classical, Hellenistic, and Roman periods must remain rough approximations.

When inspired by nature, color adds a lifelike quality to sculpture. In the ancient world, this quality was also desired for statues of bronze: overlays of reddish copper accentuated lips and nipples, silver covered teeth and nails, and gold highlighted ornamental details (fig. 10). Color further characterized body and costume, and, in the case of reliefs, enhanced the contrast between figure and background. At least for stone sculpture, the Greeks followed the Egyptian convention of depicting women with lighter and men with darker skin. For Greeks and Romans, dazzling colors were an essential ingredient of the trouser suits of Persians and other Eastern barbarians (cover, fig. 3), just as the prestigious purple denoted the dress of
rulers, for example the military cloak of the Roman emperor. As sculptors often left details to be rendered entirely in paint, reconstructing the original surface may provide important clues to the meaning of a work. This is quite literally the case for the frieze of the Siphnian Treasury at Delphi, where gods and heroes were identified by painted inscriptions. In another example, the so-called Peplos Kore from the Athenian Acropolis was thought to represent a young woman in a woolen robe, until scrutiny of the surface revealed that she was wearing the elaborate garment of a deity (fig. 2).

Most ancient sculpture, whether depicting human or divine subjects, is incomplete without color. Only with the Renaissance did white or monochrome sculpture become a paradigmatic form of artistic expression. As we now know, this phenomenon would have startled ancient sculptors such as Praxiteles—just as the color reconstructions of ancient statues startle us today.

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NOTES

1 Pliny, Natural History, 35.133.
3 Antoine-Chrysostome Quatremère de Quincy, Le Jupiter olympien, ou, l’art de la sculpture antique considéré sous un nouveau point de vue (Paris, 1815).
5 Georg Treu, Sollen wir unsere Statuen bemalen? (Berlin, 1884).
6 Alfred Emerson, Catalogue of a Polychrome Exhibition Illustrating the Use of Color Particularly in Graeco-Roman Sculpture, exh. cat., Art Institute of Chicago (Chicago, 1892); Edward Robinson, The Hermes of Praxiteles and the Venus Genetrix: Experiments in Restoring the Color of Greek Sculpture by Joseph Lindon Smith (Boston, 1892).
7 Pliny, Natural History, 33, 35.
8 Ibid., 35.131; 35.65–66.

For further reading and illustrations of all works in the exhibition, see Vinzenz Brinkmann and Raimund Wünsche (eds.), Gods in Color: Painted Sculpture of Classical Antiquity (Munich, 2007).
From the Stiftung Archäologie (SA) and the Staatliche Antikensammlungen und Glyptothek (AS), Munich:

**FIGURINE OF THE SPEDOS VARIETY**
Early Cycladic II, 2500–2400 BC, h. 35.5 cm
Marble original: Athens, N. P. Goulandris Foundation—Museum of Cycladic Art, 252
Copy and color reconstruction: SA 27, 28

**RECLINING LION**
Greek, c. 550 BC, h. 53 cm
Limestone original: Copenhagen, Ny Carlsberg Glyptotek, 1296
Color reconstruction of protome: SA 3

**“PEPLOS” KORE**
Greek, c. 530 BC, h. 117 cm
Marble original: Athens, Acropolis Museum, 679
Color reconstructions: AS 15059, SA 2

**EAST FREIZE OF THE SIPHNIAN TREASURY: GODS IN COUNCIL, ACHILLES FIGHTING MEMNON**
Greek, c. 525 BC, h. 64 cm
Marble original: Delphi, Archaeological Museum
Color reconstruction: SA 31–34

**GRAVE STELE OF ARISTION**
Greek, c. 510 BC, h. 202 cm
Marble original: Athens, National Archaeological Museum
Color reconstruction: SA 25

**THESEUS AND ANTIope**
Greek, 500–490 BC, h. 110 cm
Marble original: Eretria, Archaeological Museum, MX 4
Color reconstruction: SA 29

**WEST PEDIMENT OF THE TEMPLE OF APHAIA ON AEGINA: ATHENA, ARCHERS, SHIELDS**
Greek, 490–475 BC, h. overall c. 300 cm
Marble originals: Munich, Staatliche Antikensammlungen und Glyptothek
Color reconstructions: SA 21–22, SA 10, SA 4–5

**EAST PEDIMENT OF THE TEMPLE OF APHAIA ON AEGINA: WARRIOR’S HEAD**
Greek, 490–475 BC, h. 24 cm
Marble original: Munich, Staatliche Antikensammlungen und Glyptothek
Copy and color reconstruction: AS 15068, SA 23

**TORSO OF A WARRIOR**
Greek, 470–460 BC, h. 57 cm
Marble original: Athens, Acropolis Museum, 599
Copy and color reconstructions: SA 24, AS 15067, SA 1

**GRAVE STELE WITH SEATED WOMAN**
Greek, 470–460 BC, h. 94 cm
Marble original: Basel, Antikenmuseum und Sammlung Ludwig, 222
Color reconstruction: SA 12

**GRAVE STELE OF PARAMYTHION**
Greek, 380–370 BC, h. 92 cm
Marble original: Munich, Staatliche Antikensammlungen und Glyptothek, 483
Color reconstruction: AS 15061

**“ALEXANDER” SARCOPHAGUS**
Greek, c. 320 BC, h. of friezes 58 cm
Marble original: Istanbul, Archaeological Museum, 370
Color reconstruction of part of one long side (Alexander) and one short side: SA 40–41

**HEAD OF CALIGULA**
Roman, AD 39–41, h. 31 cm
Marble original: Copenhagen, Ny Carlsberg Glyptotek, 2687
Color reconstruction: SA 13

**HEAD OF A YOUTH**
Roman, early 1st century AD, h. 26.3 cm
Bronze original: Munich, Staatliche Antikensammlungen und Glyptothek, 457
Copy and color reconstruction: AS 15069, AS 15070

The color reconstructions are based on research and documentation of the originals by Vinzenz Brinkmann and, for particular works, Jan Stubbe Østergaard, Richard Posamentir, and Raimund Wünsche. The casts were painted by Ulrike Koch-Brinkmann, with the help of Sylvia Kellner; the color reconstruction of the bronze head was created by Olaf Herzog.

From the Harvard University Art Museums:

**AHURA MAZDA IN THE WINGED DISK**
Achaemenid Persian, 486–460 BC, h. 73 cm
Limestone original: Arthur M. Sackler Museum, Bequest of Grenville L. Winthrop, 1943.1062
Color reconstruction