CLARA SPECIAL ISSUE 2020 No. 1

Politura and Polychromy on Ancient Marble Sculpture

Mark Abbe

Abstract. The highly nuanced surface polishes evident on marble sculptures from the later Greek and Roman periods were integral to their material and polychrome aesthetics in antiquity. This paper reconsiders these polishes (L. politura, -ae) that remain often summarily described and little examined. Aspects of the textual, archaeological, and physical evidence for polishes on marble sculpture are critically commented upon and post-antique assumptions about the techniques and intended viewing of polished marble surfaces are critiqued. The polishes on marble statuary may be profitably compared to other translucent painted media, including the ancient tradition of painted glass, exemplified by the little-known Paris Plate, and the larger, diverse range of translucent stone sculpture in antiquity. These comparisons form a basis for rethinking common assumptions about polished white marble, its relative status in antiquity, and the craft specialization of ancient sculptors.

Our understanding of the optical qualities of polychromy on Greek and Roman marble sculpture is in its infancy. Polychromy research has begun to document vestigial remains of ancient coloration on these surfaces, but many questions remain about how these polishes (and other prepared surfaces) were related to applications of paint of varied thinness, translucency, and media, as well as other forms of polychromy. Laboriously achieved and subtly nuanced, polishes appear to have been integral to the material and polychrome aesthetics of much high-quality marble sculpture in antiquity. Such polishing (or *politura*) arguably remains the most unstudied aspect of the production of high-quality marble sculpture in antiquity. Concentrated on areas of visual focus within sculpture, such as the face, these polishes were as aspect of sculptural craft that was central to the ancient experience of these finely crafted images.

Polishes are optically complex and can function on translucent surfaces in multiple ways. In antiquity, the polished surfaces on marble statuary could function simply by providing a pristine, smooth surface for painting (and other forms of coloration). More often, however, polishes appear to have visually highlighted the stone's surface by transmitting light – giving the stone its often prized luminous translucency, while also reflecting light that created modelling highlights and gloss-like effects and exposing the highly crystalline fabric of the stone to give it an intimate sparkling (*marmoreus*) quality in close examination.

Fig. 1 Parian marble portrait head of Alexander the Great, said to be from Megara, c. 320 BC. H.: 29.1 cm. Photo: Malibu, J. Paul Getty Museum ©. Inv. 73.AA.27.

The production of polishes on marble sculptures is often generally thought to have increased in the later Classical period and onward.¹ An early example of nuanced polished flesh surfaces amidst a larger variegated range of surface textures is preserved on the portrait of Alexander the Great, said to be from Megara and dated to the late fourth century BC that was part of a larger, important fragmentary group of portrait sculptures, now in the Getty collections (Figs. 1, 2).² The expanding range of polishes and surface textures on marble sculptures in this period no doubt coincides with contemporary developments in painting in encaustic and other media.³

Polishes became increasingly central to later Greek and Roman imperial stone sculpture. By the Roman period the term *marmor* distinguished a stone capable of taking a lustrous polish (and thus included alabasters, colored

'marbles', granites and porphyries); white *marmor* was identified as *incandidus*, a luminous bright, lustrous white, not *albus*, a flat matte white; and the translucent and luminous properties of certain white marbles, such as those from Paros and Mount Pentelicon, were prized.⁴ The connoisseur's simultaneous appreciation of both marble's translucency and applied translucent polychromy became a *topos* in literature. This is readily evident in Pseudo-Lucian's well-known description of Praxiteles' marble Knidian Aphrodite, in which an alleged blemish on the inner thigh is interpreted either as a stain from its alleged rape or as a flaw in the marble substrate masterly hidden by the sculptor but visible through close examination of the statue's translucent painted surface.⁵ (Pseudo-Lucian and

¹ Though certainly earlier examples existed, see Haynes 1975.

² Stewart 1993, 116-121, 209-214, 438-439.

³ For the general range of marble surface finishes in this period compare the Getty group with the more normative matte surface on a rare example with of a marble surface with vestiges of flesh coloration; confer Abbe et al. 2012. See also the comments of Stewart 1993, 210, n. 60.

⁴ On 'white' in antiquity in general, see Mandel 2010.

⁵ Ps.-Luc. *Amor.* 13-16. Art and materiality of the celebrated image: Platt 2011, 108-211.

Fig. 2 Details of different surface finishes on the head of Alexander the Great, c. 320 BC. Photo: Malibu, J. Paul Getty Museum ©. Inv. 73.AA.27.

Lucian variably identify the substrate marble as Parian or Pentelic.)⁶ Such modes of viewing suggest the nuanced complexity of such translucent polychrome surfaces in antiquity, while highlighting a core approach of viewing figural sculpture in classical antiquity: the ancient viewer saw in the demonstrably crafted object the simulated immediate presence of its immaterial subject.

In ways that often have received little comment, ancient sculptors achieved a high mastery of lighting and the luminous effects – in both bronze *and* marble. Light was absolutely central to ancient aesthetics of art, and the perception of ancient marble sculpture. We should imagine the complex visual effects of polishes oscillating between many factors – including the substrate (translucent white marble), surface applications (applied polychromy in different binding media), the topography of the physical surfaces (both the worked marble and polychrome applications) – all in relation to *light*. The

⁶ Respectively Ps.-Luc. *Amor.* 13 and Luc. *Iupp. trag.* 10.

nuanced visual effects – of color, luminosity, and shadow – align well with the ancient aesthetics of *poikilia/varietas*. The importance and centrality of light in creating moving, ever-changing, fleeting optical effects are difficult to overstate. Ancient authors emphasized the animated movement of these demonstrably static images, indicating the ancient impression of incipient movement as if these figures were on the brink of response and action. Surface gloss, the optical property of a polished surface to reflect light in a specular or mirror-like direction, created highlight effects that modelled definition and imparted a greater physical immediacy and enhanced the visual impact of these images. Suggestions of these kinds of powerful visual surface effects are evident in the corpus of Roman mummy portraits executed in encaustic⁷ – arguably the best surviving painting from antiquity – where gloss-like modelling highlights emphasis the immediacy and life-like animated presence of their highly differentiated portraits.

Caveats and contemporary issues

While the polished surfaces of ancient marble sculpture unambiguously deserve greater scrutiny than they have received to date, correctly reading and documenting these surfaces is challenging. Appreciating the complex post-antique histories of the surfaces of many marble sculptures (including cleaning, treatment, refinishing, historic ‘patinas’, and waxing) is essential, since the results of these histories can easily be misunderstood as the products of antiquity, not unlike how highly altered and discolored ancient polychromy can all-too-easily be identified as burial accretion. The standard archaeological and art historical approach to such polishes remains largely evaluative connoisseurship: a high polish is a sign of quality (or more neutrally, ‘level of production’), and is read as an end in and of itself in the manner of our more familiar post-antique tradition of largely monochrome marble sculpture.

Many of us working with ancient marble sculpture (present author included) may be too casual, vague, and qualitative in our language describing their surfaces. Appreciating and explicitly distinguishing the historical chapters of a surface (ancient, archaeological, historical, modern) is a good start in understanding the surface history of an object and encourages one to avoid the wide-spread language of simple aesthetic evaluation. Research on ancient bronze surfaces immediately underscores the shortcomings of many contemporary archaeological descriptions of marble surfaces and offer directions forward: on copper-alloy objects, surface patinas (*aerugo*) are no longer described as either noble (*nobilis*) or vile (*virus*) in the tradition of Pliny, and researchers long ago gained greater self-awareness about the desire to uncover an ‘original surface’.⁸

The effects of cleaning of ancient marble sculpture are complex, and have long been a controversial subject, including, perhaps most infamously, the 1937-38 Lord

⁷ See the Getty APPEAR (Ancient Panel Paintings: Examination, Analysis, and Research) Project, directed by M. Svoboda: www.getty.edu/museum/research/appear_project.

⁸ Gettens 1970; Bertholon 2001; Scott 2002, 322-350.

Duveen-requested cleaning campaign on the Parthenon sculptures at the British Museum.⁹ The history of cleaning ancient marble statuary (both in museums and on archaeological sites) is central to understanding the present condition of their surfaces. Fortunately, increased awareness and self-reflexivity in conservation cleaning practices and the rise of ancient polychromy research have resulted in significantly more conservative approaches to cleaning in recent years, yet in many places ancient marble sculpture with no immediately legible ancient coloration continues to be cleaned with traditional methods with the assumption that if no color remains visible, none exists – in a self-fulfilling prophecy. As our contemporary age increasingly favors a post-industrial, scientific-esque, and almost hygienic, sanitized notion of cleanliness, which for art more and more means the aesthetics of the White Cube gallery, one justifiably may have concern about just how ‘clean’ our ancient marble sculptures will become, to align – consciously or unconsciously – with contemporary aesthetic expectations. Considerations of ancient polychromy encourage a corrective, fresh look at surfaces and anchor the understanding of ancient aesthetics in the physical objects themselves – in their once multicolored, crafted material immediacy. These priorities may be increasingly important for the preservation of the surfaces of ancient white marble sculpture, a highly traditional Western artistic medium that we approach with far from neutral eyes.

Politura

In the ancient production of marble sculpture, after sculpting with iron and copper tools, the smoothing and polishing of the stone surface began. Known as *politura* (from *polire*, ‘to smooth or polish’), this process resulted in the aesthetic transformation of the surface to being *politus*: refined, polished, or elegant in appearance. *Politura*, though used as a technical term for polishing across different craft media, had larger, broader cultural resonances in Roman culture, both aesthetic and moral, in the transformation and advancement from roughness to a more pure, finished, sophisticated state.¹⁰ Professional craft *politores* are attested in inscriptions. Their practices probably included both mechanical abrasion and complementary surface applications, including waxes, glazes, varnishes, etc., to enhance the luminosity, translucency, and luster of their prepared surfaces. There is no evidence for the common modern assumption that ‘true’ polishes are ‘sincere,’ or *sin cere* – ‘without wax’ (according to a false folk etymology).¹¹ The preserved physical evidence for wax on marble sculpture remains predictably limited, but such finishing waxes have begun to be properly recognized and characterized in work by Brigitte Bourgeois.¹² Significantly more evidence – textual, archaeological, and physical – exists regarding abrasive *politura* on marble sculptures and merits a brief, critical distillation.

⁹ Jenkins 2001; Delaney 2000.

¹⁰ OLD and Bradley 2006, 8.

¹¹ Contra common modern notions of marble polish, such as Rockwell 1993, 50; false etymology: OED.

¹² Bourgeois 2016.

Fig. 3 Ancient and modern marble quarries at Çamarası near Aphrodisias. Ancient quarries (top) and modern quarried marble and stockpiled emery (bottom left and right). Photo: Aphrodisias Regional Survey, New York University ©.

Among ancient authors, Theophrastus and Pliny are particularly valuable sources on polishing materials, such as abrasive emery and pumice.¹³ Following Pliny (36.52-54), discussions of ancient practice have generally emphasized the importance of emery, so-called Naxian stone (*Naxium*) from quarries at cape Emeri of the island. Emery, however, is in fact a common, naturally-occurring inclusion in the marbles in the Aegean and Asia Minor. Far from being difficult to obtain or a precious commodity, it was something of a geological ‘package deal’ with marble in much of the region. A well-documented example of this is at Çamarası near Aphrodisias where, adjacent to ancient marble quarries, both marble and emery are now mined (Fig. 3).¹⁴ In the ancient quarries emery and quartz

¹³ Theophrastos 21-22; Pliny *NH* 36.52-54, 154-156.

¹⁴ Long 2012, esp. 176-177.

Fig. 4 Evidence for finishing marble from the Athenian Agora, Workshops of the South Square. area, Roman period. Stone abrasive tools for finishing marble (top) and emery polishing pit (bottom). Agora, ST 456 (detail), ST 536, ST 535, ST 464. Photo: American School of Classical Studies, Agora Excavations ©.

(another abrasive material) form fissure inclusions that prevented large-scale blocks of marble from being quarried. Emery was, in fact, so abundant and so extensively used in marble working in the larger region that in the second century AD the proconsul of Asia, L. Antonius Albus, erected a monumental inscription forbidding the marble workers surrounding the ancient harbor of Ephesus from letting their emery (*smuris*) debris and marble chippings from silting up the harbor.¹⁵ In practice, ancient artisans – specialized

¹⁵ SEG 19 (1963) 683; *IvE* 23, context: Bouras 2011.

Fig. 5 Fragment of large sarcophagus with frieze depicting sculpture workshop, including at center a scene of polishing a lion-headed table leg (trapezophorus). From Ephesus, c. second-third centuries AD. Photo: Allan T. Kohl, University of Michigan Libr.

politores and others – no doubt employed a rich variety of other materials for polishing marble. White marble (with a broad Mohs range of 2-4), of course, does not require emery (generally Mohs 8-9), and quartz (Mohs 7), pumice (Mohs 6), and other stones are certainly sufficient. Sculptors' workshops excavated in the Athenian Agora, Panatinos, Delos, Pompeii, Poteuli and Aphrodisias provide a remarkably good deal of material evidence for surface polishing processes, including emery, quartz, and pumice abrasives.¹⁶ The most informative collection of finds are from Roman-period workshops in the Athenian Agora where stone abrasive tools and polishing pits with emery for polishing marble objects were securely excavated within well-definable marble workshop environments (Fig. 4).¹⁷ Though professional *politores* of specialized luxury materials (gems, ivory, etc.) are attested in Rome, being a *politer* of marble sculpture appears to have been less distinguished, as a frieze on a fragmentary sarcophagus depicting a sculptor's workshop from Ephesus suggests (Fig. 5).¹⁸ Amidst different sculptors and assistants is the marble polisher. Humbly dressed in a loin cloth, he laboriously leans over a worktable to polish a lion-headed table leg (*trapezophorus*) with water and abrasives in the bowl below. No *politores* of marble sculpture elected to identify themselves explicitly as such in epitaphs.¹⁹ The amount of time required to achieve the highly refined polishes of marble sculpture was undoubtedly significant (as craft experimentation readily reveals) and it may have been longer than the sculpting process on some works. M. Pfanner has suggested that the polishing merely the skin of the Esquiline Commodus could have taken nearly a quarter of the time of the production of this masterfully carved and extensively drilled portrait head.²⁰

¹⁶ On Roman workshops, now Van Voorhis 2018, esp. 47-49.

¹⁷ Lawton 2006; Thompson & Wycherley 1972, 187-188. See also Tsakirgis 2015.

¹⁸ Jockey 1998, 637-638; Smith 2011, 66-68; Russell 2013, 345-347.

¹⁹ Though note the *politer eborarius*: CIL 6.37374a and cf. Saint Clair 2003, 11.

²⁰ Pfanner 2004.

Most high gloss polishes, especially the porcelain-like surfaces on flesh, clothing and other areas of sculpture that become increasingly prevalent beginning in the second and third centuries AD, were obviously not the product of stone tools but of highly levigated, fine grain slurries of pumice and other materials. These were presumably carried on flexible materials, such as sponges, leather, and textiles, as in gem carving. Close examination on high quality marble sculptures reveals how these polishes were achieved even in difficult to reach recessed areas and demonstrates the remarkable mastery and subtly detailed attention of both the *politores* and ancient viewers of these works.

Clearly far from a simple single-stage of ‘finish’, *politura* was a multistage process, pre-planned in earlier stages of the marble carving so that the substrate was unmarred by subsurface microfracture and realized in anticipation of subsequent polychrome applications in order to achieve the final desired material and polychrome aesthetics of the subject.

Ancient polishes

The material character of the paint on these highly polished surfaces remains poorly understood. Amalie Skovmøller’s important recent investigations on imperial Roman portrait heads at the Ny Carlsberg Glyptotek are pioneering and demonstrate the challenges of understanding vestigial remains of such painting when largely devoid of stratigraphy.²¹ A useful comparison for the range of marble polishes are the more complete and paired marble portrait busts of the African Roman emperor Septimius Severus and his Syrian wife Julia Domna, produced together in a Roman metropolitan workshop (*Figs. 6, left 7, left*).²² The exceptionally well-preserved surfaces of these portrait busts display a wide range of contrasting surface textures and polishes paired with detailed modeling and contrasting chiaroscuro-like effects of drillwork. The surfaces of their thin linen chitons, thicker wool garments, facial hair, and highly polished flesh areas are all dramatically juxtaposed. Apart from modest cleaning on the art market, both portraits survive in exceptional condition and extensive sinter, root marks, and burial accretion as well as vestiges of ancient polychromy remain on their garments.

Recent marble analyses have indicated that both were carved from the same fine-grained marble. Interestingly, a higher quality marble with almost no flaws was used for the bust of Julia Domna while the bust of Septimius Severus was carved from a more extensively flawed piece of the same marble. Microscopic examination reveals how the flesh areas of Julia are more regularly and more finely polished, with a uniform directional, almost parallel, pattern of micro-abrasion with high gloss (*Fig. 6, right*). The flesh areas of Septimius, in contrast, are rougher and multidirectional, with contrasting surface polish that created a surface with less gloss (*Fig. 7, right*). These differences in polish suggest the

²¹ Skovmøller 2014; Skovmøller & Therkildsen 2015; Skovmøller forthcoming.

²² Fittschen 1978; Van Voorhis & Abbe forthcoming.

Fig. 6 Marble portrait bust of Julia Domna and detail of polished flesh surface at 60x. H.: 67.5 cm. From Rome or central Italy, c. AD 200–210. Photo: Kevin Martin and author, Eskenazi Museum of Art, Indiana University ©. Inv. 75.33.2.

Fig. 7 Marble portrait bust of Septimius Severus, and detail of polished flesh surface at 60x. H.: 77.0 cm. From Rome or central Italy, c. AD 200–210. Photo: Kevin Martin and author. Eskenazi Museum of Art, Indiana University ©. Inv. 75.33.1.

surface texture and translucency of the flesh areas of the imperial couple were different, and so too presumably the now missing paint layers. The surface polishes and marble selection suggest a more translucent, paler white feminine complexion used for Julia's skin color may have benefited from a less flawed marble and that such issues were of secondary

Fig. 8 Chalcedony portrait head of Antonia Minor from statuette or bust. H.: 5 cm. c. AD 37–54. Photo: J. Paul Getty Museum ©. Inv. 81.AN.101.

consideration in the darker skinned painting of Septimius. The use of highly contrasting gendered skin tones in representations of this imperial couple are demonstrated in the *Berlin Tondo* from Egypt, the only surviving wooden panel painting with imperial portraits.²³

In the final polychrome effect, nuanced sculpting, polishing and painting created an impression in which marble and flesh seemingly fused together to give a dramatic, if not seemingly animated, presence of the imperial couple. Such finely executed white marbles, with their high polishes and their animating highlights, participated in the optical effects of more luxurious translucent materials such as chalcedony and rock crystal that were, of course, themselves objects of sculpture, mostly small scale images,²⁴ such as a portrait of Antonia Minor, whose subtly incised details (the portrait medallion and stars on the stephane and incised hemmed boarder) were prepared for applied color (Fig. 8).²⁵

²³ Berlin Antikensammlungen, inv. 31329. Sand & Schmuhl 2017.

²⁴ Gaggetti 2006 and now Conticelli et al. 2016.

²⁵ Conticelli et al. 2016, 30-33 (Gaggetti).

Fig. 9 Fragmentary over life-size white chalcedony and rock-crystal hands. H.: 6.0, 13.2 cm. Roman, imperial, c. first-second century AD (?). Photo: Trustees of The British Museum, The British Museum ©. Inv. Gems 3961, 3962.

Although marble and bronze statuary have traditionally dominated discussion and research on Greek and Roman sculpture, it must be remembered that classical statuary was executed in an inclusive, comprehensive range of available materials, inorganic and organic. In this regard, the abundance of surviving large-scale sculptures created from the encyclopedic array of colorful stones from the Mediterranean world in the later Hellenistic and Roman periods (still relatively inconspicuous in the literature) is suggestive of the sumptuous variety of the ancient sculptural landscape.²⁶ The chalcedony pseudo-acrolithic torso of the

Diana cacciatrice from the Borghese collection, the alabaster equestrian statue of a boy from the Via Ostiense, and the greywacke Agrippina from the Temple of the Divine Claudius in Rome, to reference just a few, are astounding lithic feats by any historical standard.²⁷ These sculptures were in essence life size gems, akin to the large-scale statues in such luxurious materials Pliny reported seeing in Rome.²⁸

Even less well-known are the fragmentary rock crystal and chalcedony life-size and over life-size hands and feet (Fig. 9) carved for large acrolithic sculptures.²⁹ They are suggestive of what once was and provide useful points of comparison with marble's white

²⁶ Ideal sculpture: Gregarek 1999.

²⁷ Diana (Louvre, MA2226) Conticelli et al. 2015: 31, 35. Agrippina Minor (Ny Carlsberg Glyptotek, IN 753 and Museo Capitolino, Centrale Montemartini, 1882): Moltesen & Nielsen 2007. Equestrian boy: (Museo Nazionale Romano, Terme di Diocleziano, 115164): Bergmann 1990, 49-110-111, cat. P53. Porphyry: Del Bufalo 2018.

²⁸ NH 37.75, 107-108, 118, 196-197. Recent commentary: Lapatin 2015, 126; Conticelli et al. 2016, 31. See also the obsidian-like deep purple glass horse leg from the Townley Collection: Harden 1987, 28, cat. no. 6.

²⁹ Note also the smaller white chalcedony hand in the Uffizi (ancient?): Conticelli et al. 2016 (Gagetti): 332; Lapatin 2015, 126, 261, no. 145.

Fig. 10 The Paris Plate, obverse and reverse. Colorless blown glass, reverse painted. Rim diam. 21.0 cm, H.: 3.6 cm. Said to be from al-Yaqoussah, Syria, c. AD 200-400. Photo: Corning Museum of Glass ©. Inv. 55.1.85.

translucency. Although the degree to which the flesh areas of these materials were painted predictably remains elusive, these sumptuous materials certainly appeared ‘colored’ in antiquity. For the rock crystal, if not by application, then ambiently: as in the manner of small portable luxurious objects of rock crystal, such as the nude statuettes of Aphrodite that took on the living flesh color in the hand of its holder³⁰ (and of which ‘down market’ glass examples exist),³¹ such rock crystal flesh elements of sculpture, if not defined by applied painting alone, would have inevitably acquired the color of their larger indoor display environment, presumably the sumptuous polychrome interior walls of *opus sectile* revetment and painted stucco of a temple-like building. While the details of such displays are difficult to track, the coloration and light of the temples have begun to be elucidated.³² Less translucent materials such as white chalcedony and white marbles may have appeared like ivory (pseudo-elefantinos), perhaps with thin washes of pigment. Though impossible to precisely reconstruct, the material aesthetics of these objects underscore how the display environment was central to the appearance and visual aesthetics of statues.

³⁰ Crowley 2016. Other rock crystal Aphrodites: Galletti 2006, 337-338, cat. G34-36.

³¹ Glass Aphrodites, reportedly originally translucent: Corning Museum of Glass, 55.1.84; Museum of Fine Arts, Boston, 99.452. Harden 1987, 29.

³² Moormann 2012.

Painting on translucent substrates

Did ancient painters of highly polished translucent marble and other stones (such as rock crystal or white chalcedony) approach their polychromy differently than with more opaque materials such as unpolished marble, other stones, and wall painting? Given our limited evidence, comparisons to other media may be helpful in trying to address this question.

Perhaps a suggestion may be found in the way glass – the most pliant and translucent of the ancient artists' materials – was increasingly employed as a substrate for painting in the Roman period, as Pliny marvelled in his age.³³ The Roman imperial period produced the first flowering of reverse painting on glass, illustrating contemporary interest in luminous forms of translucent painting. While the evidence for painted glass is piecemeal, the best preserved example of the art is the exceptional – (and much less well known than it ought to be) *Paris Plate* from Syria, dated from the second to late third century AD, depicting the judgement of Paris with Aphrodite at center and Hermes to her right (*Fig. 10*).³⁴

The object is entirely reverse painted in a process described by R.W. Smith.³⁵

When the artist chose to apply the paint on the exterior, ... he imposed on himself a sort of reverse procedure, for he had to get the highlights and other incidental details on his glass before they were backed up by the covering pigments. Thus, the contours went on first... Next to be applied were the delicate shadings of the pale tints. The high lights on the bodies were applied... Finally, the covering colors were applied... The superposition in some of places three or four liquid pigments was so skillfully executed that nowhere has a colour dissolved or dulled the sharpness of an underlying detail.

When intimately scrutinizing the painting on the *Paris Plate* (now unfortunately pitted),³⁶ one looks through the glass that is simultaneously a support and a protective varnish-like/wax-like layer. Details and highlights, generally painted last on an opaque substrate, were here painted first. And the background colors, normally rendered first, were here added last. Light passes through the transparent substrate to impart greater depth and luminosity to the painted surface. Smith's suggestion of a 'reverse order', of course, reflects the widespread assumption of western painting, traditionally executed on opaque grounds and substrates, from which color is generally built up with layers of gradually increasingly translucent color.

Translucent substrates allow, if not encourage, different practices. The ancient processes of painting on glass, as demonstrated on the *Paris Plate*, may suggest we should

³³ NH 36.67.

³⁴ Key discussions: Richter and Smith 1953; Whitehouse 2001, 262-264, pls. 858A-D; von Saldern 2004, 344-345, 535, pl. 355;

³⁵ Richter and Smith 1953, 187.

³⁶ See the historic photograph on a reflective background: Richter and Smith 1953, pl. 1.

Fig. 11 Left: Detail of figure (Hermes) The Paris Plate. Reverse painted glass, c. AD 200-400. Right: Detail of a wall painting of a statue of Apollo. From the Insula Occidentalis 10, Pompeii. H.: 87cm. Second half of first century BC. Naples, Museo Archeologico Nazionale. Photo: Corning Museum of Glass and author ©. Inv. 9301.

assume less about how the highly polished areas of marble sculptures could have been painted. We might imagine similar ‘reverse’ painting on highly polished marble sculpture, with thin translucent painting subsequently built up with more thick opaque layers, similar to the *Paris Plate*. Despite differences in technique and process, however, the visual results could be quite similar: the reverse glass painting of the flesh coloration and highlights and shadows on the figure of Hermes on the *Paris Plate* is quite comparable visually to the representations of painted marble sculpture on Roman wall painting, such as the similarly high gloss highlights evoked on a mural wall painting representing a marble statue of Apollo with life-like flesh coloration from Pompeii (Fig. 11).³⁷

Artisan specialization and identity

The ancient literary tradition is largely silent about the artisans that created the nuanced painting on marble sculpture in the later Greek and Roman worlds, apart from Pliny’s well-known anecdote of the collaboration between Praxiteles and Nicias.³⁸ Although Roman art is often alleged to be an essentially anonymous craft, nearly half of all known artists from the classical world date from the Roman period.³⁹ The evidence, however, is over-

³⁷ Braggatini and Sampaolo 2009, cat. no. 63.

³⁸ *NH* 35.133.

³⁹ Excellent primer: Volkommer 2015, esp. 117.

Fig. 12 Signet ring, intaglio and impression. Carnelian. H.: 1.2 cm. From Italy, c. late first century BC. Photo: Metropolitan Museum of Art ©. Inv. 81.6.48.

whelmingly laconic inscriptions, not the literary tales and anecdotes that define our conception of Classical Greek artists. The result is that although we know the names of many artists, our sources generally tell us little about how they worked.

The makers of marble sculpture in Greek and Roman periods ‘signed’ their works according to the traditional Greek convention using the Greek *epoiei* or *epoiese*, or much more rarely, the Latin *fecit*, in both cases meaning simply ‘made (sc. it/this)’.⁴⁰ The language of this formula – laconic and remarkably flat in rhetorical terms – does not align well with modern notions of creative artistry and direct craftsmanship in the physical production of artwork. These inscriptions, so-called ‘sculptor’s signatures,’ are not explicit statements that the named individual literally carved the stone (or cast its bronze), though this was no doubt often the case and appears to be implied in some instances. *Sculpsit* meaning ‘carved by hand’ emerged in the fifth century AD to clarify this specific notion in stone carving. Thus, ‘sculptor’s signatures’ are in most cases better understood as generalized highly mercantile statements (though in some cases no doubt prideful) by the workshop owner and statue designer rather than sculpture maker – more Jeff Koons than Michelangelo.

Generally, in the restricted economy of such inscriptions, only the workshop owner was recorded, and other artisans, such as the painter and the gilder, had little place and go undefined. Numerous individual sculptors, painters, gilders and other craftsmen are, however, known in the epigraphic record of the Roman period, especially in the form of funerary epitaphs in which they proudly recorded their craft expertise and thereby their social status. A remarkable visual self-representation of a sculpture painter is preserved on a signet ring, his personal sealstone no doubt – brush in right hand, palette in left and painting (possibly in tempera) a female portrait bust, while dressed in a full himation with the dramatically animated face of a great creative artist-thinker in the Greek mold (Fig. 12).⁴¹

⁴⁰ Toynbee 1951, 17-33.

⁴¹ Abbe 2014.

Such statue painters are only very rarely attested in inscriptions, but an important exception to this rule is a remarkable epitaph in Greek – the language of art for any properly educated Roman and for any noteworthy artist, dating to the high imperial period and found outside the walls of Rome between the Via Appia and Via Latina. Undoubtedly from a columbarium tomb in the area, the modest funerary epitaph records an otherwise unknown individual:⁴²

ΑΦΡΟΔΙΣΙΟΣ ΔΗΜΗΤΡΙΟΥ Ο ΚΑΙ ΕΠΑΦΡΑΣ ΑΓΑΛΜΑΤΟΠΟΙΟΣ
ΕΝΚΑΥΣΤΗΣ

Aphrodisios, son of Demetrios, also known as Epaphras sculpture-maker and encaustic painter

The juxtaposition of *agalmatopoiος*, sculpture-maker, and *enkaustes*, encaustic painter, is intriguing. The designation of *agalmatopoiος* associates Aphrodisios with the more sophisticated and refined domain of statues of the gods (*agalma*), rather than a portrait statue-maker (*andriantopoiος*). The specific definition of him as an encaustic painter (*enkaustes*) rather than a simple painter (*graphos*) similarly suggests a high, refined art practice. The declaration of his patrilineal descent indicates a degree of social status. His name associates him with the goddess of beauty and certainly is to be understood in tandem with the declared nickname, *Epaphras* or ‘very foamy’, intimately associated with Aphrodite (‘born from the foam’). The pairing suggests *Epaphras* took on an added resonance: ‘very lovely’, ‘dedicated to Aphrodite’, or ‘dedicated to love and beauty’, all suggestive of visual beauty and excellence.

In the economy of the inscription, the relationship between Aphrodisios’ expertise as a sculpture-maker and encaustic painter is undefined. Were they unified – a sculpture-maker who also painted his images – or distinct – a sculpture-maker and a painter? The inclusion of both specializations is extremely unusual in funerary epitaphs and suggests a relationship between them rather than a simple proud display of multiple expert skills. Did this Aphrodisios pride himself on being an artist in the tradition of Praxiteles, the most famous *agalmatopoiος* of the goddess, who also had a unique expertise in encaustic painting according to Pliny?⁴³ This epitaph is probably better understood as a more immediate product – a reflection of contemporary sculptural practice in Rome in the second and third centuries AD when metropolitan marble sculpture workshops excelled in creating exquisitely polished polychrome sculptures. Perhaps Aphrodisios in this singular juxtaposition of his skills of sculpture and encaustic painting meant to suggest his beautiful mastery of the intimate interface of material, color, surface, and aesthetic impression, that is, of perceiving matter.

⁴² CIG, III, 6351; Loewy 1885, 376-377, no. 551; Vollkommer 2001-2004, I, 64.

⁴³ NH 35.39.

Acknowledgements

It is a pleasure to acknowledge and thank Marina Prusac-Lindhagen and Kaja Kollandsrud for their kind hospitality at the *Perceiving Matter* seminar meeting in Oslo.

Mark Abbe

Associate Professor of Ancient Art

University of Georgia

Lamar Dodd School of Art

270 River Road, Rm. N326

Athens, GA 30602 USA

abbe@uga.edu

Bibliography

Abbe, M. 2014: 'Intaglio Ring Stone with a Greek Artisan Painting a Female Portrait Bust', in J.S. Østergaard & A.M. Nielsen (ed.). *Transformations: Classical Sculpture in Colour*, Copenhagen: Ny Carlsberg Glyptotek, 47.

Abbe, M, G.E Borromeo. & S. Pike. 2012: 'A Hellenistic Marble Statue with Ancient Polychromy Reported to be from Knidos', in A. Gutierrez Garcia. P. Lapuente & I. Rodà (ed.). *Interdisciplinary Studies on Ancient Stone. Proceedings of the IX International Meeting of the Association for the Study of Marble and Other Stones in Antiquity, Tarragona Spain, 2009*, Tarragona: ASMOSIA/Institut Català d'Arqueologia Clàssica, 763-770.

Bergemann, J. 1990: *Römische Reiterstatuen: Enbrendenkemäler im öffentlichen Bereich*. Mainz: Philipp von Zabern.

Bertholon, R. 2001: 'To Get Rid of the Crust or Not: Emergence of the Idea of 'Original Surface' in the Conservation of Metal Archaeological Objects in the first half of the 20th Century', in A. Oddy & S. Smith (ed.). *Past Practice-Future Prospects*, London: British Museum Press, 5-11.

Bouras, C. 2011: 'La circulation des pierres et le port d'Ephèse', in P. Jockey (ed.). *Leukos lithos. Marbres et autres roches de la Méditerranée antique: études interdisciplinaires. Actes du VIII^e Colloque international, Association for the Study of Marble and Other Stones used in Antiquity (ASMOSIA). Aix-en-Provence 12–18 juin 2006*, Paris: Karthala, 495-508.

Bourgeois, B. 2016: 'Ganôsis et réfections antiques de polychromie. Enquête sur le portrait en marbre de Bérénice II au Musée royal de Mariemont', *Cahiers de Mariemont (Trésors*

hellénistiques de Mariemont) 40: 65-81 with scientific appendixes by D. Robcis and N. Balcar, 82-85.

Bradley, M. 2006: 'Colour and Marble in early imperial Rome', *PCPS* 52: 1-22.

Braggattini, I. & V. Sampaolo. 2009: *La pittura pompeiana*, Milan: Electa.

Conticelli, V, R. Gennaioli. & F. Paolucci. 2016: *Splendida Minima. Piccole sculture preziose nelle collezioni medicee, dalla Tribuna di Francesco I al tesoro granducale*, Livorno: Sillabe.

Crowley, P.R. 2016: 'Crystalline Aesthetics and the Classical Concept of Medium', *West 86th A Journal of Decorative Arts, Design History, and Material Culture* 23 (2): 220-251.

Del Bufalo, D. 2018: *Porphyry. Red Imperial Porphyry*, Turin: Allemandi.

Delaney, M. 2000: 'Beware Restorers bearing Chisels', *Art Review* 52: 57-59.

Fittschen, K. 1978: 'Two Portraits of Septimius Severus and Julia Domna', *Indiana University Art Museum Bulletin* 1 (2): 28-43.

Gaggetti, E. 2006: *Preziose sculture di età ellenistica e romana*, Milan: Edizioni Universitarie di Lettere Economia Diritto.

Gettens, R.G. 1970: 'Patina noble and vile', in S.R. Doeringer, D. Gordon Mitten & A.F. Steinberg (ed.). *Art and Technology: A Symposium on Classical Bronzes*, Cambridge: The Fogg Art Museum & M.I.T. Press, 57-72.

Gregarek, H. 1999: 'Untersuchungen zur kaiserzeitlichen Idealplastik aus Buntmarmor', *KölnJb* 32: 33-284.

Harden, D.B, D. Whitehouse, K.S. Painter. & H. Hellenkemper (eds.) 1987: *Glass of the Caesars*, Milan: Olivetti.

Hayes, D.E. 1975: 'A Question of Polish', in: *Wandlungen: Studien zur antiken und neueren Kunst: Ernst Homann-Wedeking gewidmet*, Waldsassen: Stiftland, 131.

Jenkins, I. 2001: *Cleaning and Controversy: The Parthenon Sculptures 1811-1939*, London: British Museum Press.

Jockey, P.H. 1998: 'Les représentations d'artisans de la pierre dans le monde gréco-romain et leur éventuelle exploitation par l'historien', *Topoi* 8: 625-652.

Lawton, C. 2006: *Marbleworkers in the Athenian Agora*, Athens: American School of Classical Studies at Athens.

Long, L.E. 2012: 'The Regional Marble Quarries', in C. Ratté & P. D. De Staebler (ed.). *The Aphrodisias Regional Survey (Aphrodisias V)*, Darmstadt: Philipp von Zabern, 165-201.

Mandel, U. 2010: 'On the Qualities of the "Colour" White in Antiquity', in V. Brinkmann, O. Primavesi & M. Hollein (ed.). *Circumlitio. The Polychromy of Antique and Medieval Sculpture*. Munich: Hirmer, 303-323.

Moltesen, M. & A.M. Nielsen. 2007: *Agrippina Minor. Life and Afterlife*, Copenhagen: Ny Carlsberg Glyptotek.

Moormann, E.M. 2012: *Divine Interiors: Mural Paintings in Greek and Roman Sanctuaries*, Amsterdam: Amsterdam University Press.

Pfanner, M. 2004: 'Was ist ein antiker Kopf wert? Zur Einschätzung des Kopfes Lanckoroński in Berlin', *AW* 35 (1): 89-92.

Richter, G.M.A. & R.W. Smith. 1953: 'A Glass Bowl with the Judgment of Paris', *The Burlington Magazine* 95 (603): 180-187.

Rockwell, P. 1993: *The Art of Stone Working: A Reference Guide*, Cambridge: Cambridge University Press.

Russell, B. 2013: *The Economics of the Roman Stone Trade*, Oxford: Oxford University Press.

Saint Clair, A. 2003: *Carving as Craft. Palatine East and the Greco-Roman Bone and Ivory Carving Tradition*, Baltimore: John Hopkins University.

von Saldern, A. 2004: *Antikes Glas*, Munich: C. H. Beck.

Sand, L. & Y. Schmuhl. 2017: 'Der Tonto des Septimius Severus, der Julia Domna, des Caracalla und des Geta', in Y. Schmuhl & E.P. Wipfler (ed.). *Inkarnat und Signifikanz. Das menschliche Abbild in der Tafelmalerei von 200 bis 1250 im Mittelmeerraum*, Munich: Zentralinstitut für Kunstgeschichte, 230-248.

Scott, D.A. 2002: *Copper and Bronze in Art: Corrosion, Colorants, Conservation*, Los Angeles: Getty Conservation Institute.

Skovmøller, A. 2014: 'Where Marble Meets Color: Surface texturing Hair, Skin and Dress on Roman marble portraits as Support for Painted Polychromy', in M. Harlow & M.L.

Nosch (ed.). *Greek and Roman Textiles. An Interdisciplinary Anthology*, Oxford: Oxbow Books, 279-297.

Skovmøller, A. Forthcoming: *Facing the Colours of Roman Portraiture: Exploring the materiality of ancient polychrome forms*, Berlin: Walter De Gruyter.

Skovmøller, A. & R.H. Therkildsen. 2015: 'The Polychromy of Roman polished Portraits', in P. Pensabene & E. Gasparini. (ed.). *Interdisciplinary Studies on Ancient Stone*, Rome: 'L'Erma' di Bretschneider, 891-900.

Smith, R.R.R. 2011: 'Marble Workshops at Aphrodisias', in F. D'Andria & I. Romeo (ed.). *Roman Sculpture in Asia Minor*, Portsmouth, Rhode Island: Journal of Roman Archaeology, Suppl. Ser. 80, 62-76.

Stewart, A. 1993: *Faces of Power: Alexander's Image and Hellenistic Politics*, Berkeley: University of California Press.

Thompson, H.A & R.R. Wycherley. 1972: *The Agora of Athens: The History, Shape and Uses of an Ancient City Center*, Princeton: American School of Classical Studies at Athens.

Tsakirgis, B. 2015: 'Tools from the House of Mikion and Menon', in M.M. Miles (ed.). *Autopsy in Athens: Recent Archaeological Research on Athens and Attica*, Oxford: Oxbow, 9-17.

Van Voorhis, J. 2018: *The Sculptor's Workshop*, Darmstadt: Philipp von Zabern.

Van Voorhis, J. & M.B. Abbe. Forthcoming: 'Grounding the Ungrounded: The Paired Portrait Busts of Septimius Severus and Julia Domna in the Eskenazi Museum of Art, Indiana University', *SPAAA (Selected Papers on Ancient Art and Architecture)*.

Vollkommer, R. 2014: 'Greek and Roman Artists', in C. Marconi (ed.). *The Oxford Handbook of Greek and Roman Art and Architecture*, Oxford: Oxford University Press, 107-135.

Vollkommer, R. (ed.) 2001-2004: *Künstlerlexikon der Antike*, vols. 2, Munich & Leipzig: K. G. Saur.

Whitehouse, D. 2001: *Roman Glass in The Corning Museum of Glass*, vols. 2, Corning Museum of Glass: Corning NY.