



1.1. Painted sculptures from the Façade of the Nineveh Court, Sydenham, London, 1859 (Philip Henry Delamotte Collection). Note the bull-headed column capitals on the upper floor, inspired by recent excavations at Susa. Photo. Courtesy of the Historic England Archive

## CHAPTER ONE

### DEFINING POLYCHROMIES

In this chapter I lay out a theoretical framework by providing a definition of polychromy as used in this book. I review the development of polychromy studies and deal specifically with the early stages of the modern reception of ancient western Asian polychromies. I investigate and explore how the surface of ancient stone monuments, particularly of Assyria, has been encountered by antiquarians, archaeologists, and museum curators and how the polychromies have inspired, been displayed, and appreciated since the nineteenth century. This is not an exhaustive survey. Within this framework, however, issues of competing definitions, aesthetic debates and movements, as well as aspects of influence from polychromy debates in relation to other ancient civilizations such as Egypt, Greece, and Rome, loom large. At the more recent end of this engagement stands Batchelor's (2000) *Chromophobia*. Batchelor argued that nineteenth-century European thought laid much of the ground for a fear that color would eventually "take over" the values of western civilization. He suggested that it was in the nineteenth century that color became "forcefully" excluded and abolished from a presumed universal western mindset, because it was seen as a "corruption of culture" implicitly tied to "the feminine, the *oriental*, the primitive, the infantile . . ."<sup>1</sup> It is mainly for this reason that for many decades, scholars trained in a European-American tradition, and

<sup>1</sup> Batchelor 2000, 21–3, emphasis mine.

increasingly scholars trained around the world, have conceptualized and presented the past as predominantly “white.”

A critical survey of almost two hundred years of reception allows us to appreciate the often emotionally charged discourse on the topic and to gain some understanding of the tensions and controversies that have plagued the field. In my historiographical review, questions of authenticity, preservation, conservation, and display (including the controversial practices of cast-making and cast-coloring for museum presentations) feature prominently. In my view, these factors played a crucial role in both the development and the subsequent stagnation of polychromy studies among historians of the art of ancient western Asia.

#### TRANSLATIONS

Any attempt to study the polychromy of a specific type of culture, material, or site must start with a definition of the word itself. It is important to precisely define what we are talking about and to set this issue of definition into its own historiographic context. Our modern word polychromy is derived from the ancient Greek *polychrómatos*, which simply means many-colored or multicolored. It is found only a few times in texts from classical antiquity.<sup>2</sup> Early on in ancient texts traditionally used by scholars, the word *poikilia* (“marking with varied colors”) is attested, too.<sup>3</sup> As many modern scholars have come to apply the term polychromy to other cultures as well, in studies on ceramics, textiles, and other materials, it is worth looking at its modern origins again.

Already in 1765, the term “polychrome” was used in the *Encyclopédie*.<sup>4</sup> “Polychrome” was then explicitly sanctioned for use in modern discussions of ancient art by the Frenchman Antoine Chrysosthôme Quatremère de Quincy (1755–1849). He discussed the origins, meanings, and significance of the word in his lecture “Un mémoire intitulée: Recherches sur l’origine, les causes, l’emploi, le goût et la durée des statues d’or et d’ivoire chez les Grecs et les Romains, ou dissertation sur la sculpture polychrome des anciens” in October 1806 in the Parisian Académie des Beaux-Arts. According to David Van Zanten the term *polychrome* was a common term among academics in the nineteenth century and was often used and translated with other words such as *particolored*.<sup>5</sup>

<sup>2</sup> E.g. Strabo *Geographica* 15.1.22. Polychrómatos is used interchangeably with *polychrósos* and *polychrósus*: Koch 2000, 38 with further references.

<sup>3</sup> Grand-Clément 2015.

<sup>4</sup> Diderot and Le Rond D’Alembert 1765, s.v. “peintres grecs” and “peinture des Grecs.”

<sup>5</sup> Van Zanten 1977, 83 n. 33; Bourgeois 2008; Middleton 1982, 176. General useful treatises on the debate on ancient polychromy in the nineteenth century can be found in Billot 1982; Drost 1996; Knipping 2001; Türr 1994.

The idea and the sense of the word is preserved in ancient and modern languages used in western Asia, too, of course. In Farsi, the meaning is conveyed in *فِن تهيِه نقوش ألوان*, and in *تعدد ألوان* in Arabic. In the poems by Ibn al-Jayyab (1274–1349), some of which are preserved on the walls of the Alhambra in Spain, we learn about “different designs . . . either polychromed (muzakhraf) or gilded (mudhahhab).”<sup>6</sup>

Because the term polychromy in its basic lexical sense of many-colored is indeed so broad, it can legitimately embrace, when applied to the ancient environment, myriad media. These media include multicolored dyed or woven textiles, ceramics, painted wooden beams, wall paintings, glazed brick reliefs and tiles, and architectural and sculptural details made of materials such as stones and glass in contrasting colors. Materials include portable objects such as furniture embellished with ivories overlaid with pigment application, gilding, and added ornamentation in semiprecious stone, sculpture with metal attachments, jewelry (especially cloisonné work) with multicolored inlays, and stone vessels covered with paints (for such examples, see Chapter 5), in short everything that would fit into a multicolored ancient universe, and especially into the “rhetoric of abundance”<sup>7</sup> in the ancient world. Indeed, one scholar has proposed that “polychromy can refer to *any decorative art* involving the use of several colors.”<sup>8</sup> The complex situation in assigning a clear definition of polychromy in ancient art is well demonstrated in modern philological discussions and in the vocabulary used for multicolored textiles from Mesopotamia (*gūna-a*), Assyria (*birmu*), and, most important, Elam.<sup>9</sup> The Akkadian word *birmu* derives from the word *barāmu*, “to be multi-colored.”<sup>10</sup> At least one weaver of colored cloth, *Nādin-a/i*, was active during the reign of Darius in Uruk.<sup>11</sup>

In modern scholarly discourse on sculpture, however, the term polychromy has been used inconsistently and has generated great debate. Ian Paterson himself, who offered the inclusive definition given previously, simultaneously referred to polychromy quite restrictively as “the *process* of painting or staining

<sup>6</sup> Bush 2009, 132, 141; Bush 2011, 55; Makariou 2003. <sup>7</sup> Winter 2003.

<sup>8</sup> Paterson 2003, 309, emphasis mine.

<sup>9</sup> Rossi 2021; Rossi and Basello 2011; Villard 2010, 397; Waetzoldt 2010, 201. While aspects of polychromy are featured, the term itself is not discussed in Alvarez-Mon et al. 2018. Multicolored textiles in Mesopotamia: Gaspa 2017; Joannès 2010, 2014; Quillien 2020; Zawadzki 2006, 2010, 2013; Multicolored textiles in Greece: Brøns 2017. Archaeologists excavated a few textile fragments at Persepolis and Susa. Nagel 2021a, 1362–3. In 2020, Hamid Fadaei announced a new project collaboration with the Research Center for Conservation and Cultural Relics of the ICCHTO [Ministry of Cultural Heritage, Handicrafts and Tourism of Iran] aiming to organize and study the carbonized fabric fragments excavated on the site. This research is currently undertaken by Dr. Shahrzad Amin Shirazi.

<sup>10</sup> Gaspa 2017, 79–80; Quillien 2020, 212 n. 64; Stol 2021, 196; Thavapalan 2019b, 81.

<sup>11</sup> Payne 2008, 184–5.



in several colors, *in particular, as regards statues and bas-reliefs.*"<sup>12</sup> I will return to Paterson's idea of polychromy as a process later in this book.

Although we are told of numerous ancient treatises on sculpture and artistic practices in classical texts, these are not extant for the Achaemenid sphere, making it impossible to state whether the word and the related concept would have appeared more than we can currently state. In his review of the literary evidence of Greek and Roman writers on art, Pollitt does not contemplate the issue of polychromy or the possibilities of what we might have learned from them regarding the interface between sculpture, architecture, and painting.<sup>13</sup>

Further tensions are revealed in Paterson's understanding of how he wants the term to be applied when, in the same passage, he offers the following definitions, which return to his most inclusive approach: (1) polychrome means "having many colors in contradistinction to monochrome, that is also used as a noun to refer to a work executed in many colors"; (2) polychromatic means "having many colors"; and (3) polychrome *sculpture* means "a colored sculpture." In this last phrase, he reasserts his inclusive definition of polychromy by defining a special category of polychrome *sculpture* within that large open category. Paterson's alternative definition (which restricts polychromy to painterly techniques of surface application of color onto existing sculptures, architecture, or other works of art) is emblematic of a serious tension in the field even today. It is crucial to explore the competing ideas in scholarship as to what qualifies as polychromy in the study of ancient art.

Most scholars of ancient art today conform to Paterson's restrictive definition, considering polychromy to be limited to multicolored features added to preexisting three-dimensional forms such as relief sculpture or statuary in the round. Previous scholars have, however, complicated issues of definition regarding the issue of wall painting and its impact on the discussion. How does the concept and process of polychromy (as this is generally applied to the coloring of preformed modeled compositions) relate to the concept and process of applying paints to walls in the form of murals? Astrid Nunn, who wrote a landmark monograph on wall paintings and glazed wall decorations in ancient western Asia, provided no clear definition of polychromy. She did, however, include a short chapter on ancient western Asian painted relief sculpture and sculpture in the round.<sup>14</sup> Here, she argued that the topic of mural wall painting should be treated separately from such material: "The issue of paint on orthostats and stone reliefs does not directly belong to the topic of wall paintings."<sup>15</sup> Was Nunn making a distinction, because in her understanding, color was applied to ancient sculptures only as detailed work on certain

<sup>12</sup> Paterson 2003, 309, emphasis mine.   <sup>13</sup> Pollitt 1974, 12–31.   <sup>14</sup> Nunn 1988, 229–35.

<sup>15</sup> Nunn 1988, 229: "Die Bemalung von Orthostaten und Steinreliefs [gehört] nicht unmittelbar zum Thema der Wandmalerei" (trans. mine).

limited surfaces of the forms and thus was not similar to the concept of wall paintings? Nunn did, however, acknowledge the fact that paint preserved on sculptures helped her consider the use of color and the painter's palette on murals. In contrast, Ursula Seidl seemed to incorporate wall painting and other modes of polychromatic architectural decoration under the rubric of polychromy.<sup>16</sup>

In my view, Nunn's separation of painted relief sculpture from painted walls is not productive. From the craftsman's perspective, the raw materials of painted color (i.e. the minerals and pigments themselves), and the process of applying them on relief sculpture, statuary in the round, and wall painting can often be the same. There is no firm reason to believe that the tools of applying paints onto walls and stone reliefs were different unless the ground material for the walls was different from stone. Rather, as Michele Marincola has proposed, the "techniques of polychromy on sculpture often parallel those of two-dimensional painting in the same culture."<sup>17</sup> Particularly for Neo-Assyrian palace art, Roger Moorey (1937–2004) had argued for a "close relationship of painter and sculptor" as "emphasized by the use of applied colour on the reliefs." He also noted that the Neo-Assyrian palace reliefs were in fact "two-dimensional drawings rendered in relief," and that "it is likely that their execution was influenced from the outset by the techniques of wall painting . . . The design would be sketched in, in ink, then the background cut away."<sup>18</sup> Moorey further remarked that the palette of pigments used was identical on relief sculpture and mural arts. It is well known that wall paintings appeared directly above the painted reliefs in the very same Neo-Assyrian palace interiors.<sup>19</sup> We must consider wall paintings and painted reliefs as part of one production process that took place in these rooms. The result was an integrated *polychrome program*.<sup>20</sup>

As with later Achaemenid décor, Neo-Assyrian palace environments included polychrome glazed brick embellishment along with mural painting and painted reliefs, painted ivories and other décor. An index of the modern

<sup>16</sup> Seidl states that the term "many-colored" (German: *Vielfarbigkeit*) is mainly a "Bezeichnung für die Farbigkeit, die einer auch unabhängigen bestehenden Form zugefügt ist (Architektur, Rundbild, Relief), und deren Einzelfarben ohne Übergang nebeneinander gesetzt sind" (Seidl 2005, 599). The "forms" Seidl is referring to would not exclude wall paintings per se as these are part of architecture.

<sup>17</sup> Marincola 2004, 1319. This has been recently stressed by Brinkmann (2007, 61) for the field of Greek polychromy, where a carved relief is "typologically closer to painting than sculpture in the round."

<sup>18</sup> Moorey 1994, 35 reinforcing Moortgat 1959, 130–1; Moortgat 1959, 19: "Die Malerei ist . . . vielmehr mit den anderen Kunsthandwerken, Toepferei, Baukunst und Bidhauerei, so eng verbunden, dass sie sich von ihnen nicht abtrennen laesst."

<sup>19</sup> Albenda 2005; Guralnick 2010; Kertai 2015, 235–7; Loud 1936, 67; Moorey 1994, 326; Rassam 1897, 28.

<sup>20</sup> This would be in line with the proposal of the definition by Zink 2019.

comingling of these media is found in the ambiguity of translations of a wording in a statement of King Assurnasirpal II (c. 883–859 BCE) in which the ancient text refers to the representation of his triumphs *zaginduru* “in paintings.” Moorey reiterated Mallowan’s observation that these “paintings” may in fact have been glazed brick decorations.<sup>21</sup>

Turning to the close of the Achaemenid period, evidence from the so-called Alexander Sarcophagus is important. This monument, found in Sidon in 1887, and dating to the late fourth century BCE, combines deeply carved relief sculpture that preserves remnants of a lavish polychromy with motifs painted on the interiors of the shields of the sculpted Persian warriors in the manner of miniature murals to provide details of the famous Audience scenes excavated at Persepolis.<sup>22</sup> It is of great interest that the motifs painted on these shield interiors are directly inspired by Achaemenid monumental sculpture known to us from Persepolis. We also note that in Persepolis paint was used to create patterns and detailed motifs on certain architectural reliefs that in other instances were rendered in carved form (see Chapter 3). We can compare the patterns of walking lions carved in relief on the royal baldachins of the original central panels of the Apadana or the door jambs of the Hall of 100 Columns to the patterns of walking lions once rendered in paint ornamenting the throne covers and royal robes as preserved via incised painters’ guidelines on figures from the Hall of 100 Columns, the main Hall of the Harem building, and the Tripylon.<sup>23</sup>

The close connection between polychromatic murals and architectural reliefs is well attested through evidence from Persepolis and Susa together. The discoveries in the 1970s at Susa revealed remains of almost life-size mural paintings, rendering the motif of gift-bearers from the subject lands, echoing at approximately the same scale the famous carved stone reliefs on the Apadana at Persepolis.<sup>24</sup> Crossovers between reliefs in stone (originally painted) from both Persepolis and Susa are attested abundantly at Susa also in colorful glazed brick

<sup>21</sup> Moorey 1994, 326. See Mallowan 1966, 67. In the original publication by Wiseman 1952, 30, 36 the text was translated as follows: (l. 31) “My glorious valor in the regions of the mountains and seas . . . and the conquest of all their lands I drew in glazed (works) on their walls (l. 32), I caused bricks to be baked with blue (glaze) and set (them) above their doors.” See, now: Marchetti 2009; Tudeau 2019, 111 n. 49. On new research on glazed façades in the Elamite context: Abdali 2018 and Holakooei 2020; Mannaean art: Binandeh et al. 2017 and Hassanzadeh and Curtis 2021; Assyrian context: Gries and Fügert 2020. Research on the glazed bricks from Babylon and Borsippa, important for the regional context: Amrhein et al. 2019; Gries 2022; Kaniuth 2013, 2018; Rodler et al. 2019; Thavapalan 2019b; Zessin 2019.

<sup>22</sup> Blume 2015, 281–7; Brinkmann 2007, 154, figures 284–7; Graeve 1970, 102–9. The same details of the Audience scene are featured upon bullae excavated at Daskyleion: Kaptan 2002.

<sup>23</sup> Tilia 1978, 46, figure 3 and plate 33, figures 39–40; Schmidt 1953, plate 105; cp. Naster 1974.

<sup>24</sup> Boucharlat 2013, 402–3, figures 466–9; Labrousse and Boucharlat 1974.

relief and equally colorful flat glazed tiles. The motif of servant-figures carrying vessels, containers, animals, or other gifts for the ruler up staircases is a prominent example of this in all three modes.<sup>25</sup> This medium is closely tied to the concept of mural painting and, as noted previously, may have been considered one and the same phenomenon in the ancient mind (namely, Assurnasirpal II). There was no necessary distinction between what motifs and scales of production were appropriate for polychromy renderings in mural work, glazed brick, and glazed brick relief. In features of technical production (as opposed to decorative concept), Annie Caubet compared the mode of application of polychromy on the glazed bricks from Susa with the jewelry technique of cloisonné.<sup>26</sup> This observation reinforces the impression of the fluidity of craft interconnectivity in the sphere of polychromatic vision, design, and implementation at the Achaemenid Persian court. It helps open the door ultimately to reconsideration of the broadest and most inclusive of definitions of polychromy.

What about the texts preserved from Achaemenid Persia? Terminology for relevant craft techniques used at the Achaemenid Persian court is ambiguous, fluid, and hardly restrictive, in the official languages and those languages used in everyday life. Here, the modern researcher has to wait for extended philological scholarship programs in the future. The Old Persian term *patikarā* (p-t-i-k-r-a), as attested in texts, has been translated by Roland Kent (1877–1952) as “picture, (sculptured) likeness.”<sup>27</sup> Others, however, translated *patikarā* as “counterfeit, re-production.” Pierre Grelot (1917–2009) translated the term as “sculptor,” as did Whitehead, Tuplin, Tavernier, and others, who equate Aramaic *ptkrtr* with “sculptor” and Iranian *patikarakara* with “maker of statues.”<sup>28</sup> The word is rooted in the idea of likeness, not in the technique of sculpture per se.<sup>29</sup> Kent’s parenthetical suggestion of *sculptured* likeness is inferred by him from the fact that the uses of the word in extant texts happen to refer to sculptural monuments. *Patikarā* is used in the inscription of Darius I at Bisotun (DB IV 66, ll. 72–7 – Kent 1953, 132, followed by Schmitt 1991, 72) and in his tomb inscription (DNa 4, ll. 30–47 – Kent 1953, 138). At Bisotun (DB IV 67, ll. 76–80), Darius exhorts,

<sup>25</sup> Other examples of crossovers between stone relief and glazed brick in either relief or flat decoration include files of confronting guards, antithetically-posed sphinxes, lion and floral motifs (see, e.g. Muscarella et al. 1992).

<sup>26</sup> Muscarella et al. 1992, 223.

<sup>27</sup> Cameron 1948, index 209; Cameron 1958, 166; Kent 1953, 194; Roaf 1980.

<sup>28</sup> Grelot 1972, 70; Roaf 1980, 73 n. 5; Tavernier 2007, 35, 429; Tuplin 2013, 100, 104; Whitehead 1974, 84–9; for “image-maker” in an Aramaic translation on a parchment letter related to Arsama, the Persian satrap of Egypt in the late fifth century BCE. See also the extensive discussion in Briant 2002, 457.

<sup>29</sup> Tuplin 2013, 105 n. 259: “The fundamental etymological connotation of the word [i.e. *patikara-*] at any date is counterfeit or reproduction.”



If thou shalt behold this inscription or these sculptures, (and)  
 shalt destroy them and shalt not protect them as long as unto thee there is  
 strength, may Ahuramazda be a smiter unto thee... (trans. Kent  
 1953, 132)

These texts refer to the representational imagery on two monuments both of which happen to be in the form of sculpted stone rock reliefs. Discussing the terminology for sculptors and sculptures at the Achaemenid Persian court, Michael Roaf argued (correctly in my view) that the term *patikarā* should be appreciated as similar to the Babylonian word *salmu* (sal-ma-a-nu), which “had a similarly wide range of meanings: statue, relief, drawing.”<sup>30</sup> The English translation as “image” comes closest.

Evidence from other texts produced in the empire does not provide a great deal of information that would allow us to see distinctions the court might have made in discussions of the *techniques* of wall painting versus painted relief sculpture versus polychrome-decorated glazed bricks in the rendering of “likeness.” The trilingual Susa Foundation Charter texts (DSf 3i, ll. 40–5—Kent 1953, 144; Lecoq 1997, 236; Kuhrt 2007, 492 for the Old Persian) state,

The ornamentation with which the wall was adorned, that from Ionia  
 was brought. . . (trans. Kent 1953, 144).

But it is unclear what type of wall ornamentation would have been “brought” presumably ready-made from afar: textiles perhaps? A later section of the same text (DSf 3i, ll. 45–9 – Kent 1953, 144; Lecoq 1997, 236; Kuhrt 2007, 492 for the Old Persian) goes on to stipulate a series of distinct jobs performed by specified and discrete ethnic groups:

The stone columns which were here wrought, a village by name of  
 Abiradu, in Elam—from there were brought. The stone-cutters who  
 wrought the stone were Ionians and Sardian. . . (trans. Kent 1953, 144).

This passage suggests some differentiation of craft specialties relating to different types of adornment that would have yielded the polychromy of architectural monuments that we can glean from physical evidence at the sites of Persepolis and Susa. This text is, however, an imperial statement of power over and integration of conquered lands rather than a treatise on artistic practice.<sup>31</sup> Accordingly, it must be treated in those terms.

Elamite administrative documents from Persepolis cast light on this subject in a genre that is not governed by ideologically driven rhetoric. One Persepolis Treasury tablet (PT 27), dating from the reign of Artaxerxes I (462/I BCE)

<sup>30</sup> Roaf 1980, 65.

<sup>31</sup> Namely, Root 1979, 11; Root 2010, 186 with further references, see Chapter 5.

refers to “makers of inlay, makers of reliefs (?).”<sup>32</sup> The modern challenge to find an adequate translation is interesting in that it brings together these two crafts in a citation of what appears to be a single work project. Several Elamite administrative documents from the large Persepolis Fortification tablet archive refer to craftsmen and -women. Some of these texts do categorize explicit distinctions between types of crafts engaged in the decoration of the palatial installations of Persepolis. Richard Hallock (1906–80) translated the Elamite term *karsup* as painter;<sup>33</sup> George Cameron (1905–79) translated the Elamite term *hatena hutira* (PT 78) as an ornament maker; Hallock, however, suggested a mirror maker.<sup>34</sup> The Elamite term *beasiskurraspe* (PT 30, PT 62) was understood as ornament maker by Hallock.<sup>35</sup> A plasterer (?) is perhaps attested as *du-uk-kaš*, too.<sup>36</sup> Goldsmiths and silversmiths are also mentioned in the tablets.<sup>37</sup> More philologically grounded discussions of intertextuality in professions would offer one way to overcome our limited understanding.<sup>38</sup>

Recent work by Matthew Stolper, Wouter Henkelman, and colleagues have updated our vocabulary and knowledge significantly, especially as to the role of women involved. PF-NN 0898, for example, a tongue-shaped memorandum, which was edited first by Hallock, has now been collated and translated by W. F. M. Henkelman as follows:

150 (l.) barley, (01-03) allocation from Zazzap, (03-04) Lullu received. (11) He gave it to them, (04-05) to female dependent workers, (05-06) (who are) female painters (*karsup*), (06-08) for whom Attebaka is responsible, (09) (who are) exhausted, (10) as *kamakaš* (a bonus ration) (12) for 10 months, (13) 18th year (504/03 BCE).<sup>39</sup>

A second tongue-shaped memorandum preserved on a clay tablet (Fort. 2341-106), initially edited by Matthew Stolper, was collated and translated by W. F. M. Henkelman as follows:

(01) 21.7 (?) l. flour, (02) allocation from Kanimanba, (03-04) Dayukka and his companion(s) received. (08) They fed (?) it to (04-05) female dependent workers, female painters (*karsup*) (05-06) at Iteba, (06-07) for whom Tandupirdana (Šandupirzana) is responsible. (09-10) They received it during 6 months (10-13) and 35 female dependent workers

<sup>32</sup> Cameron 1948, tablet no. 27; Kuhrt 2007, 788 no. 19.

<sup>33</sup> PF 1110, 1111, 1169 = Hallock 1969, 711. <sup>34</sup> Kuhrt 2007, 789 no. 21.

<sup>35</sup> Hallock 1960, 99–100; 1969, 677.

<sup>36</sup> PT 49a = Cameron and Gershevitich 1965, 175; PT 76:5 = Hallock 1969, 682; PT 10a = Arfaee 2008a,b,c.

<sup>37</sup> PF 872 = Kuhrt 2007, 794 no. 29; PF 874 = Kuhrt 2007, 795–6 no. 33.

<sup>38</sup> There have been several attempts to disentangle these complexities for the Egyptian world and other cultures: Drenkhahn 1995; Jäger 2004; Laboury 2016; Quirke 2018.

<sup>39</sup> PF-NN 0898 is accompanied by two seal impressions (Seals: PFS 0273s left edge, PFS 2423 upper edge). I am grateful to Matthew Stolper and Wouter Henkelman for facilitating the translation and permission to include the translation here.

each monthly received 1 l. (13-14) 23rd year (499/98 BCE). (15) Included in this there is 1 l. (as) karmaziš (a bonus ration) for each 5 (of them). [remainder broken].<sup>40</sup>

In a recent discussion on the concept of *decor* in Assyrian buildings based on texts, Johanna Tudeau expanded our modern ideas about this important aspect of ancient monuments in another fruitful direction by including nonvisual techniques such as fragrances, which certainly played a major role, too.<sup>41</sup>

With some notable exceptions, the evidence we have to date on these matters reinforces the general impression that the Achaemenid court considered the production of various forms of ornamentation as part of a larger whole. Distinct specialties that contributed to the polychromy of the whole surely existed (such as inlay work versus relief carving), and will have had their own histories in the many languages spoken among the craftsmen on the sites; but on the level of payments and disbursements, a craftsman was a craftsman to a large degree. Many were engaged simultaneously on a multimedia presentation that included a variety of techniques to produce lavish displays of surface decoration. All of this leads me to propose that polychromy, properly defined, should indeed refer to any decorative art involving the use of several colors.<sup>42</sup> The ideal ultimate goal in studying the polychromy of the Achaemenid imperial environment would be to incorporate an integrated analysis of the entire spectrum of color array from the many and varied manifestations I have suggested. Within the parameters of this book I will, perforce, focus primarily on painted and gilded royal stone monuments of the Achaemenid heartland capitals of Persepolis and Susa. But my restrictive focus is not a statement of a restrictive definition of polychromy. Instead, it reflects the practicalities of one project that is preliminary to a much larger endeavor. Therefore, I will attempt to place these monuments in the context of a polychromy of the Achaemenid courtly environment that embraces a holistic concept.

#### DOCUMENTING, EXTRACTING, AND PRESENTING POLYCHROMIES FROM ANCIENT WESTERN ASIA

The now-“white”<sup>43</sup> Persepolitan stones displayed on the sites discussed here and those in museums and galleries in Persepolis, Susa, Chicago, Tehran, Paris,

<sup>40</sup> Fort. 2341-106 has unidentified seals on the left edge and the upper edge. I am grateful to Matthew Stolper and Wouter Henkelman for facilitating the translation and permission to include the translation here.

<sup>41</sup> Tudeau 2019, 106-23. Tudeau noted that there is no Akkadian equivalent for the modern word “painting.”

<sup>42</sup> See Paterson 2003, 309.

<sup>43</sup> I am using the terms “white” and “whiteness” in a metaphorical sense. I am aware that different limestones were used on the site of Persepolis, coming from various local quarries that yielded various shades of this stone (Laurenzi Tabasso and Lazzarini 2017; Tilia 1968, 76;

London, and New York create the image we have in mind, and even recent films have shown ancient imagined palatial environments with white sculptures.<sup>44</sup> This “whiteness” has shaped our imagination. We have perceptions of urban environments created in specific ancient and modern cultures in mind: we associate the modern domestic architecture on the Cycladic islands in Greece with clear white, blue, and rather plain color schemes, as we associate modern Rome with its terracotta and claret-brownish colors, though they were remarkably different in earlier periods.<sup>45</sup> The history of the detection, subsequent perception, and aesthetic evaluation of the once colorful walls and sculptures of the palaces of western Asia over the last two centuries can be contextualized in these ideas. It is as complex as it is a fascinating tale of competing ideas of interpretation and public presentation of polychromy.

Educated western people of the early nineteenth century read the classical authors and the Bible. These sources left no doubt that the past was a polychromatic environment: colorful columns and reliefs adorning the walls of the palaces in Babylon are mentioned in these texts. According to Ezekiel 23:14–5 (perhaps recording scenarios of the sixth century BCE) in the palaces of Babylon “there were men portrayed on the walls, the images of the Chaldaens portrayed with vermilion, girded with girdles upon their loins, exceeding in dyed attire upon their heads, all of them princes to look to, after the manner of the Babylonians at Chaldaea” (trans. Fisch 1985).<sup>46</sup> According to the Greek historian Strabo (writing in the Augustan Age), the Babylonians “wind ropes of twisted reed around the columns and then they plaster them and paint them with colors” (*Geographica* 16.5.1, trans. Jones).<sup>47</sup> As we will see in the following overview, many experiments in nineteenth-century public displays reinforced the notion of a richly colored ancient Assyrian and Babylonian environment. This, as we will see, also contradicts Batchelor’s *chromophobia* concept.

Zare 2004). Most of the Persepolitan stone sculptures in major western collections and in the Tehran museums have been (in some cases) heavily treated and polished. This and closely related issues will be discussed further partly in Chapter 4. In a metaphorical sense, the term “white” in this book equates “naked.” For specific qualities of limestone and aspects of its modern conservation: Durnan 2006. Informative introductions on aspects of stone conservation: Doehne and Price 2010; Henry 2006; Siegesmund and Snethlage 2014.

<sup>44</sup> Elley 1984; Garcia 2008, esp. 21–2; McGeough 2022.

<sup>45</sup> Lange 1995; Lenclos and Lenclos 2004; Swinoff 2000.

<sup>46</sup> For discussions on color terms from ancient sources in nineteenth-century scholarship see, e.g. Brenner 1982, 1989, 1999.

<sup>47</sup> Strabo’s commentary needs, of course, to be treated with caution. It can be discussed whether his account is describing a Babylon of his own era or a Babylon of the past.

APPROACHING ANCIENT WESTERN ASIAN POLYCHROMIES: THE  
FIRST DECADE (1843–1853)

The first wave and the bulk of archaeological fieldwork in the early first millennium BCE Neo-Assyrian palace complexes at Khorsabad (ancient Dur-Sharrukin), Nineveh (Kuyunjik), and Nimrud (Kalhu), today in modern Iraq, took place between 1842 and 1855.<sup>48</sup> Paul-Émile Botta (1802–70), Eugène Flandin (1809–76), Austen Henry Layard (1817–94), and Victor Place (1818–75) frequently referred in their reports to traces of paint on the monuments, glazed bricks, painted plaster, and other materials related to the painting process.<sup>49</sup>

In April 1843 Botta announced an abundance of paints still to be observed on the stone monuments at Khorsabad in letters to Paris.<sup>50</sup> Hand-colored plates accompanied Botta's earliest publications on the palaces of Khorsabad.<sup>51</sup> Once removed and transported to Europe, the impressive original monuments from the ruins of the Assyrian palaces soon became attractions in museums and salons. Museum curators were aware of the traces of paint discovered by the excavators.

The first reliefs and sculptures reached Paris in December 1846. In February 1847, Adrien de Longpérier (1816–82), *Conservateur de la deuxième division des antiques du musée royal qui comprend les monuments égyptiens de toutes les époques, les monuments orientaux et arabes, indiens, etc.* at the Louvre in Paris, continued to comment on considerable traces of paint on the architectural sculptures from Khorsabad.<sup>52</sup> The Louvre's public galleries devoted to Assyrian art opened only a few months later in May 1847. On display were also glazed bricks and raw pigments, including a large number of blue and green materials, excavated

<sup>48</sup> A great number of recent monographs and articles have dealt with the arrival and reception of ancient monuments from western Asia in nineteenth-century Europe and the Americas: Bahrani et al. 2011; Bohrer 2003; Cohen and Kangas 2010; Hagenauer 2015; Kertai 2015; Larsen 1996, 2017; Malley 2012; McGeough 2015; Micale 2008; Thomas 2008; contributions in Nadali and Micale 2015; Petit and Morandi Bonacossi 2017. Art historical approaches: Brown and Feldman 2014. Nineteenth-century reception of Achaemenid Persian monuments in Europe, especially England: Allen 2007; Harrison 2007.

<sup>49</sup> Albenda 1986, 33; Botta and Flandin 1846–50; Chevalier 2016; Flandin 1845; Layard 1849. Large lumps of actual pigments were excavated in Khorsabad. For a discussion of this critical evidence, see Chapter 5.

<sup>50</sup> Botta 1843, 1844. <sup>51</sup> Guralnick 2002, 28–30; 2010, 782.

<sup>52</sup> Longpérier 1854, e.g. 29 no. 5: “La barbe, les yeux et les sourcils portent des traces très sensibles de couleur noire et blanche”; 31 no. 7: “Les yeux et la barbe conservent des traces de couleur”; 32 no. 10: “Les yeux, les cheveux, la barbe, le diadème, la tête de l'ibex et la fleur de lotus sont encore peints”; 32 no. 11; 33 no. 13; 34 nos. 15–6; 35 no. 17: “Le diadème est d'un rouge très vif”; 35 no. 18; 35 no. 19; 36 no. 21; 37 no. 26; 38 no. 29: “La couleur des jambes et des sandales est encore très reconnaissable”; 38–9 no. 30: “La tête des chevaux est surmontée d'une sorte de *crista* peinte en rouge, . . . ; 40–1 nos. 32–4.



by Botta and Place, leaving no doubt about the colorful environments of these ancient palaces.<sup>53</sup>

These were the words of Austen H. Layard on the colors observed on the monuments of the freshly excavated reliefs from the series of Neo-Assyrian palaces excavated by the British:

The hair, beard, eye brows, eyelids and eyeballs, black; the inner part of the eye, white; the king's mitre, principally red; the crests of the helmets, blue and red; the heads of arrows, blue; the bows, red; the handles of maces, red; the harnesses of horses, blue and red; sandals, in the oldest monuments, black, edged with red; in those of Khorsabad, striped blue and red; the rosettes in the garlands of winged figures, red; trees at Khorsabad, a blueish green; flowers carried by the winged figures, green, with red flowers occasionally; fire, always red.<sup>54</sup>

The modern recovery of traces of polychromy on these ancient stone monuments itself needs to be read against the significant discussions of Mediterranean and, to a lesser extent, ancient North Africa, specifically Egyptian polychromies in the first half of the nineteenth century. Both Botta in Mosul/Paris and Layard in Mosul/London were rooted in an environment where theoretical discussions of the extent and function of polychromy on Greek and, to a much lesser extent, Egyptian sculpture loomed large. Proving the very existence of polychromy itself seemed a considerable accomplishment.<sup>55</sup> Already in 1845, in discussing the polychromy of the stone reliefs excavated at Khorsabad, Flandin used traces of paint to conceal a large measure of aesthetic preconceptions. Opening his brief discussion by commenting on the rather annoying (“fâcheux”) impression the colorful reliefs would have

<sup>53</sup> Longpérier 1854, 44–9 nos. 48–210; For the glazed bricks now Thomas 2016, no. 211; Thomas 2020.

<sup>54</sup> Layard 1849, vol. 2: 312. Further comments on paint: 306, 309, 310; passage here cited from Stearns 1961, 20 n. 40. See also the reference by Reade 2008, 15 n. 2 quoting from the original notebook of Layard: “Bracelets on arms painted black/crossing with red edging/mace handle red/Tiara of king, horse reins and/or ornament above red/Handle of dagger below head of/animal-blue/the head a reddish brown/ornament all black pecked with red/the knob or rope near leg, blue/bracelets red. Tassels ditto.”

<sup>55</sup> Even though color engravings were part of a limited deluxe edition of the invaluable *Description de l’Égypte* (1809–28) and left no doubt about the original polychromy of ancient Egyptian monuments, see the plates in the volumes published with Panckoucke 1809–28 (e.g. vol. I: plate 18: “The Hypostyle of the Main Temple of Philae Perspective View”; vol. II: plate 12, “Thebes-Médinet-Abou”; plate 89, “Thebes-Byban el Molouk”), their impact on contemporaneous discussions on ancient polychromy has not received sufficient scholarly attention. The polychromy debate was also relevant for contemporary architecture in Europe: Billot 1982; Crinson 1996, 33–5; Middleton 1982; Van Zanten 1977. It is apparent that nineteenth-century European architects were inspired by and soon adapted ancient Egyptian polychromy into exterior façades, e.g. the 1823 façade entrance of the library of Devonport in Plymouth, or the so-called Egyptian House in Penzance in Cornwall, built in 1835 (Curl 2005, 264–6).

made on the viewer, and on the difficulties contemporaries faced when imagining the phenomenon, he joins the ongoing debate about aspects of polychromy on ancient Greek stone sculpture:

How difficult it is to understand that the Greeks, with all monuments having been built with materials of the finest quality, . . . and whose architectural ornaments they executed so finely, decided to conceal the imprint chisel of their skilled sculptors under layers of blue and red.<sup>56</sup>

Though Flandin is harsh in judging the aesthetics, his comments on the actual polychromy of the Neo-Assyrian palace reliefs are far from clear:

I would not dare to claim that the walls of the palaces at Khorsabad were entirely colored, and to me there is no certainty regarding that question. It may be that only some parts of the bas-reliefs were painted, and that in order to make them more visible, the walls were left untouched for most of the surface, and only some items were colored. However, I do not think that such was the case.<sup>57</sup>

Rather, Flandin argued, it would be due to matters of conservation and stability of the pigments and binding materials that not all colors are visible anymore. The issue of fragility, conservation and preservation was indeed a very important one, to which I will return later in more detail. Flandin made one more important observation: that the paints applied on the reliefs in the Assyrian palaces were the same as those applied to the monuments in Egypt.<sup>58</sup>

In 1847, the first relief sculptures from Layard's excavations conducted in the ruins of the Neo-Assyrian palaces arrived in London. Attempts to reconstruct the *original* colors of these palaces soon followed. In his *Nineveh and Its Remains*, Layard published four chromolithographic plates, among them one imaginary reconstruction of an Assyrian interior, brightly colored<sup>59</sup> (**Figure 1.2**).

Layard's concept of ancient western Asian polychromy was developed together with the architects Owen Jones (1809–74)<sup>60</sup> and James Fergusson

<sup>56</sup> “Ce qui se comprend plus difficilement, c’est que les Grecs, dont tous les monuments ont été construits avec des matériaux de la plus belle qualité, . . . et dont les ornements architectoniques étaient si finement exécutés, aient pu se décider à cacher l’empreinte du ciseau de leurs habiles sculpteurs sous des couches de bleu et de rouge” (Flandin 1845, 106, trans. mine).

<sup>57</sup> “Je n’oserais point avancer que les murs des palais de Khorsabad étaient entièrement coloriés, et, à cet égard, je suis dans le doute. Il est possible que certaines parties seulement des bas-reliefs aient été peintes, et qu’afin de produire plus d’effet, en laissant la pierre dans un état naturel sur les grandes surfaces, on n’ait colorié que quelques détails; cependant je ne le pense pas” (Flandin 1845, 106, trans. mine).

<sup>58</sup> Flandin 1845, 107.

<sup>59</sup> Layard 1849, vol. 1: plate 2; On the important role of chromolithographic publications of ancient architectural polychromies in nineteenth-century academia, see now Hassler 2019; Hennemeyer 2017, 2019; Twyman 2013.

<sup>60</sup> On Jones: Hrvol Flores 2006, and later in this chapter.



1. 2. Interior of an Assyrian palace (after Layard 1849, vol. 1: pl. 2). The place of “plate 2” in art history has recently been restudied by Ada Cohen and Steven Kangas. Photo: Alamy Stock Photo

(1808–86). Both men figured prominently in the antiquarian discourse on ancient polychromy at this time. Significantly, the elaborate reconstruction we see in their reconstructions cannot be taken as a precise illustration of Layard’s direct observations of the archaeological record. Some color schemes differ markedly from Layard’s written descriptions. In retrospect, it is not clear what purpose these reconstructions may have served: To stimulate interest in polychromy? To raise funds for future excavations?

In 1851, Fergusson stated that the new discoveries of Assyrian palaces

were of greatest importance in relation to the question of polychromy, being in fact the authority for its employment by the Greeks; and a proper study of them would go far to throw light upon the question . . . The Persians, however, from the days of Nineveh to the present time, used colour most extensively; covering their mosques entirely with painted tiles, and relying more on colour than on form for the effect to be produced.<sup>61</sup>

<sup>61</sup> Cited by Donaldson 1851, 45.

The interest in publicizing the color of these great monuments could best be seen in museum and museum-like presentations of the day. Shortly after the arrival of the Assyrian reliefs in London, various parties made requests for casts. Some collectors requested colored casts for display alongside their privately held original fragments of Assyrian reliefs in order to show how the now monochrome originals once looked. In a letter to Layard in May 1850, for example, Henry Danby Seymour (1820–77) requested that a cast of a relief from room I of the northwest palace of Nimrud be made so that it might be painted to replicate its presumed original colorful appearance.<sup>62</sup>

Somewhat contradictory information about the nature and extent of the polychromy that once adorned the monuments circulated soon thereafter. In 1853, Joseph Bonomi (1796–1878) argued that besides the observed red, blue, and black, it appeared that the

colours were more varied, and that the whole surface of the bas reliefs was coloured with them. On the bricks there are other tints: . . . yellow, white, green etc. There is no reason why the Assyrians should have used these latter colours on their bricks, and not have employed them to paint their sculptures. It is much more natural to suppose that the portions not at present coloured were coloured formerly.<sup>63</sup>

Bonomi is one of the important individuals Nunn overlooked in her attempts to distinguish between nineteenth-century scholars who interpreted the archaeological remains as indicating an only partial coverage in color and those who favored a total polychromy. The situation is indeed very complex.

<sup>62</sup> “I want a cast taken of the sculpture, and to have the cast coloured as it is supposed the sculpture was. It will stand like a fire-screen with the sculpture on one side and the painted cast on the other” (Reade 2008, 11; BL 38979: 231; letter, May 18, 1850).

<sup>63</sup> Bonomi 1853, 327–8; Bonomi is a less well studied character in debates on polychromy in the nineteenth century. He was in close contact with Botta and Coste (Crinson 1996, 32). The Bonomi papers and correspondence are held today at the Cambridge University Library, Department of Manuscripts, and include communications with Layard and Fergusson. I plan to study this documentation in the near future.

The question of polychromy in ancient palaces of western Asia is addressed less explicitly in the publications of William Vaux (1818–85), assistant keeper in the Department of Antiquities in the British Museum from 1841. In *Nineveh and Persepolis* he argued that “two colors: red and blue have stood the test of time . . . The blue is generally extremely bright.” (Vaux 1850, 195).

Meetings held on January 12, 26, and February 9, 1851, at the Royal Institute of British Architects in London addressed “polychromatic embellishments in Greek architecture.” Speakers included Hittorf, Semper, and Penrose, but also experts on Egyptian and Assyrian polychromy like Fergusson, Jones, Hector Horeau (1801–72), and Gothic revival architect Joseph Scoles (1798–1863). In these meetings it was argued that the architecture of the Greeks could not be understood without studying their polychromy (Donaldson 1851, 44). An important landmark in the intellectual reception of ancient polychromy, again focused only on the polychromy of ancient Greece and Rome, published at this time is Semper 1851a. On Semper’s approaches to ancient polychromies: Pisani 2003; Rehm 2019.

Although Nunn is right that Layard advocated for an only partial decoration of the stones, this is true only of his scholarly writings. His actions in terms of public display and representation of the colors on the façades of these ancient monuments indicate that he was conflicted on this issue. Indeed, he offered an alternative version of the monuments in a total polychromy of vibrant colors.

#### REINVENTING ANCIENT WEST ASIAN POLYCHROMIES:

SYDENHAM (1854–1866)

Throughout the first half of the 1850s, Layard, Fergusson, and Jones collaborated in a campaign to influence the public to accept and think about the use of color and ornament, the polychromatic enrichment of built environments, because, in Jones' own words, "England was far behind in employment and appreciation of color in then contemporary interior and exterior decoration."<sup>64</sup> An important part of this campaign was their creation of a dramatic installation of painted plaster casts and reconstructions of an ancient Assyrian palace in the Crystal Palace in Sydenham in south London. Painted Achaemenid Persian architectural features were included in the form of bull-headed capital columns.

The Crystal Palace, which opened to the public in June 1854, was a private initiative to show recent developments and progress in technology and production.<sup>65</sup> This "world trade fair" was successful. The public was quite drawn to the fair, with visitor numbers much higher than in the museums of the city of London, counting over 1.3 million visitors every year with 32,000 tickets sold every week. One contemporary witness stated that the Crystal Palace is "the grandest educational institute the world has yet seen."<sup>66</sup>

The Fine Arts Court within the Crystal Palace, with its showing off of ancient and medieval art work, played a rather small but interesting role. Today, the Nineveh Court remains an important phenomenon in the history of the reception of ancient polychromy in the nineteenth century (**Figures 1.1, 1.3–1.4**). The Nineveh Court was located next to the foot of

<sup>64</sup> Cited in Piggott 2004, 75.

<sup>65</sup> The literature on the Crystal Palace is vast. See, more recently, Nichols 2015. On the displays discussed here see Bohrer 2003, 212–8; Collins 2020; Piggott 2004, 109–12; Rehm 2022. Jones had already been involved as a superintendent for the exhibition and the arrangement of displays in the *Great Exhibition*. After the closing of the *Great Exhibition* in 1851, Jones became involved in re-erecting the Crystal Palace at Sydenham. Together with architect Matthew Digby Wyatt (1820–77), Jones undertook the design and furnishing of the Fine Arts Court. As a result of coloring the monuments in the Greek Court, Jones was obliged to publish an *Apology* (Jones 1854), in which he was assisted by his friend, the philosopher George Henry Lewes (1817–78).

<sup>66</sup> Anon. 1854a, 246. Visitor numbers: Nichols 2015, 5, 19. Polychromy in the Greek and Roman courts: Nichols 2015, 74–7.





1.3. Façade of the Nineveh Court, Sydenham, London, c. 1859. Album, British Library. Note how the paint of the columns and column capitals here differs from the photographs depicting the same structure. © British Library Board/Robana/Art Resource, NY

two of the four famous statues of the Egyptian temple complex of Abu Simbel each measuring 15.5 m and crafted in blocks of plaster “covered in red, yellow and blue house paint ordered by hogshead,” who reminded one visitor of “clowns in a circus.”<sup>67</sup> With the Nineveh Court, Layard, Fergusson, and Jones created their own vision of the ancient palatial environments. The court highlighted vibrantly painted casts of architectural reliefs from Nineveh, Nimrud, and Khorsabad set into a structure. In this combination the exhibition lacked historical specificity, but such was obviously not the aim. The color schemes applied to the casts and the galleries displaying the monuments were

<sup>67</sup> Anon. 1854b, 258. See the perplexed comment by Samuel Leigh Sotheby (1805–61), a Crystal Palace shareholder: “I happened to be at the Crystal Palace when the casts were first being painted . . . At that moment I was pleased with the novelty, and so expressed myself to Mr. Bonomi. The next day, however, I called, telling him I had quite regretted having entertained such an opinion” (Piggott 2004, 87). The Nineveh Court was situated in the northwestern angle of the Crystal Palace (cp. Hrvol Flores 2006, 120–1, plate 2.21 watercolor; Leith 2005, figures 63–5 photographs; Piggott 2004, esp. 109–12).



1.4. Nineveh Court, Crystal Palace, Sydenham, London, detail. Nineveh “Assyrian” court from gallery between 1855 and 1890. Musée d’Orsay, Réunion des Musées Nationaux et du Grand Palais, Paris. Photographer: Negretti & Zambra. Photo: Art Resource

executed by a London-based company (Leonard W. Collmann, renowned interior decorator of Curzon Street), and were probably painted by workers from western Asia.<sup>68</sup>

<sup>68</sup> Piggott 2004, 47.

The painted casts were described in detail by the contemporary guidebooks.<sup>69</sup> According to one guidebook, the casts of the “animals . . . were in chocolate on buff grounds, or blue on red, or red on blue. The bulls of the portal were deep dull red with black beards and hairs, their mitres blue and yellow.”<sup>70</sup> In the accompanying catalog, Layard explained in an authoritative voice how the choices of colors were made:

The arrangement and contrasts of the colors have been carefully studied, and when there has been no authority for their use in any particular instance, a comparison with other monuments and especially with Egyptian remains have, in some instances, furnished the means of deciding which to adopt. It may appear strange and unnatural to us that color should be employed in all parts of such an edifice, and that even sculptures and bas-reliefs in various materials have been painted. But that such was the case in Assyria, as indeed in Egypt and in ancient Greece, can now no longer admit of a doubt, and in restoring an Assyrian palace, it would have been absurd to omit so essential a feature of Assyrian architecture. From the remains of gold leaf continually found in the ruins, it would appear that gilding was profusely employed in the Assyrian palaces. It is even probable that many parts were overlaid with gold leaf . . . Care . . . has been taken to consult every authority upon the subject. The traces of color still existing on the monuments discovered at Nineveh, especially upon those at Khorsabad, have been minutely examined, and have furnished sufficient data for the painting of most of the bas-reliefs and architectural details.<sup>71</sup>

Significantly, although many original fragments from Persepolis and casts from monuments taken from the site were housed by this time in the British

<sup>69</sup> “Fergusson, assisted by Mr. Layard, has erected the court before which the visitor now stands – an architectural illustration which, without pretending to be a literal copy of any one building, most certainly represents generally the architecture of the extinct but once mighty kingdoms of Mesopotamia, during the two centuries that elapsed between the reign of Sennacherib and that of Xerxes, namely, from about B.C. 700 to B.C. 500” (Layard 1854, 52, 53–4).

<sup>70</sup> Piggott 2004, 111.

<sup>71</sup> Layard 1854, 53–4, 59. According to the general guidebook (Phillips 1854, 26), the walls of the Nineveh Court were “ornamented with paintings, either on plaster or enameled on the bricks . . . Having completed his survey of the interior of this Court, the visitor may . . . glance at the exterior of the Court he has just quitted, the bright coloring of which – the bold ornaments, the gigantic bulls, and colossal features, present as novel and striking an architectural and decorative display as the mind can imagine.” Layard does not give any more detailed description of the colors and paints used for the reconstructions. Evidence for the color schemes comes from reproductions of contemporary watercolors by Joseph Nash (1808–78), and photographs. While the hair and beards of the colossal lamassus were painted black and the face in the same color as the body (or only slightly brighter), the horned crown was left white with a system of dots and golden horns, as well as an upper crown of blue leaves. It is also clear that Jones and Fergusson preferred contrasting color schemes for the Persepolitan inspired lintels.



Museum in London (see Chapter 2), almost none of this material was featured alongside the Assyrian casts. The upper floor of the Nineveh Court was composed of an elaborate balcony reconstruction meant to suggest the superstructure of the Assyrian palaces. Ironically given the sidelining of Persia here on its own terms, only the columns of this balcony were actual replications of the complex Achaemenid columns from Persepolis and Susa, complete with their great bull protome capitals.<sup>72</sup> These fabricated bull capitals were completely painted. Existing reproductions indicate that they were painted in blue. Was the yellow we see in John Nash's reproductions of the constructions of the Nineveh Court an indication that Jones and Fergusson were convincing in promoting that original façades might have been gilded?

The Nineveh Court stood out as a landmark experiment in the portrayal of a polychrome ancient palatial environment for the general public. Notwithstanding the excitement the polychrome casts generated, they also met with harsh criticism. For some contemporaries the Nineveh Court gave the impression of a “marvellous peep-show, a contemporary toy theatre,” and that the coloring seemed “garish to most people of refined taste.” Jan Piggott assumes that the colors would have made Nineveh “absolutely ferocious.”<sup>73</sup>

<sup>72</sup> Fergusson's published architectural reconstruction of the Assyrian palaces were deeply inspired by his awareness of the standing ruins of Persepolis: Fergusson 1851.

<sup>73</sup> Piggott 2004, 75–6, 112. Piggott (76) observed that Jones “had stamped his ideas and taste too heavily on the courts and observed a ‘color fever’, . . . ‘polychromatic’ runs like a motif, or even like a party line, throughout the company's guidebooks to the Courts.” Cp. Anon. 1854b, 258 on the Egyptian casts: “Will anyone for a moment deny that the effect of the four vast seated colossi (in the Crystal Palace there are but two of these) which exist in the rock hewn façade of an ancient temple in Nubia, called by the Arabs Aboo-Simbel, must be infinitely grander in their native rock colour, mutilated as they are, then painted up into the hot and glowing monstrosities which they appear in the North Transept, where they sit glowering and roasting?” As one interesting side note in modern historiography, the painted plaster casts of the Parthenon Frieze in the Greek Court, by contrast, had to be removed due to negative public response, even though it was officially stated that the coloration was for experimental purposes (Hrvol Flores 2006, 93; Jones 1854; Piggott 2004, esp. 109–12). According to a contemporary news magazine “color was feared like the small-pocks” (Piggott 2004, 81). The “glaring” colors of the Nineveh Court were attacked by Samuel Sotheby, who pointed out that in Layard's descriptions the original colors of the excavated places would have been rather “delicate” and “occasional” (Piggott 2004, 87). William Rossetti is said to have “hated” the Nineveh Court and called it “an oppressive nightmare Life in death,” finding the colors “hard, glaring and uncombined” (Piggott 2004, 111). The notion of the “theater” is significant: Frederick Bohrer has recently discussed the impact Layard's first discoveries had on the theatrical plays that were now able to adapt ancient decor on the stage (Bohrer 2003, 178–81). The stage decoration for “Sardanapalus, King of Assyria” (1853–4), opened at the Princess Theatre in June 1853 (Cole 1859; Krengel-Strudthoff 1981), only one year before the Nineveh Court in Sydenham Palace and included a colorful imaginative palace of Sardanapalus and a view of Nineveh in the distance. It was performed sixty-one times in its first year, and an additional thirty-one performances in 1854 and made “Nineveh spring out of Mr. Layard's monumental book” (Bohrer 2003, 180). It was director Kean, who “einer altertumswissenschaftlich fundierten Ausstattung zu breiter Anerkennung und Weiterwirkung verholfen hat” (Krengel-Strudthoff 1981, 3). Kean, born into an actor's

An anonymous reviewer in the *London Quarterly Review* in April 1855 noted scathingly

one shudders to think of the generations who groaned beneath the yoke of these sanguinary reds, implacable blacks, and cruel blues . . . There is only one class of visitors who will discover the slabs in the Nineveh Court to be really relieved at all, and that is the blind. Their sense of touch may ascertain the inequality of the surface; but those driven to trust to their eyes only in the examination of works of art will take these famous restorations for nothing more than a flat wall painted, and that not-precisely in a style calculated to atone for the sacrifice of the relief; for the same anti-Eastern gaudiness prevails here which characterises their gigantic neighbours. The remark of a neat little country maiden: These men look as if they'd got on clean white pinafores,' is about the highest praise that can be bestowed on them. . . . The more one contemplates this great eyesore of the Crystal Palace . . . the more we must wonder that any artists could be found to execute it. Want of time maybe justly pleaded . . . instead of too little time these gentlemen had infinitely too much, and, since taste could not stop them, it is pity want of pleasure did not.<sup>74</sup>

Others praised the *educational* values of the installations.<sup>75</sup> Yet while the number of visitors in the Crystal Palace exponentially rose and the number of artists who used the sculpture galleries in the British Museum decreased dramatically between 1849 and 1870, the aesthetic debate focusing on “taste” overlaid discussion about how much was painted in the original reliefs. It is significant that judgments on the “taste” of the Assyrians soon followed. In 1854, Richard Westmacott wrote, referring to Assyrian monuments, that “for the further we go back to *barbarism* in art, or to the infantry of art, the more surely we meet with coloured sculpture.”<sup>76</sup>

In a letter published a year later in May 1855, Fergusson countered that those who viewed the polychromy of Assyrian palaces as barbarous were simply revealing their own bleak sensibilities. Fergusson could

perfectly understand that a person accustomed to the grey atmosphere . . . or the smoky dinginess of London, [will find] such decorations too brilliant for their enfeebled nerves . . . If anyone likes to assert that the taste of the Assyrians was bad, and their art barbarous, that is a matter of opinion which I do not propose to discuss at present.<sup>77</sup>

family and himself an Eton student and member of the society of antiquarians, was later even labeled “the greatest archaeologist of the day” (Krengel-Strudthoff 1981, 4). The sketches for the stage decorations and sets, designed by Grieve and executed by Gordon, Lloyds, and Days, are preserved today in the Victoria and Albert Museum and indicate that colors were used to paint the ancient Assyrian interiors.

<sup>74</sup> Anon. 1855, 163–4. <sup>75</sup> Anon. 1854a, 246.

<sup>76</sup> Westmacott 1854, 28 [emphasis in original]. <sup>77</sup> Fergusson 1855.



## ... MEANWHILE, BACK IN PARIS: THE FRENCH APPROACH

Across the Channel on the continent, engagement with aspects of ancient polychromies continued, too: Paris had already been the foremost European intellectual center of public discourses on polychromy relating to Egyptian, Greek, and Roman monuments. In 1822, Franz-Christian Gau (1790–1853) had exhibited a series of sketches of colorful ancient Egyptian façades at the Paris Salon. Gau was a close friend of Jacob Ignaz Hittorf (1792–1867), one of the most prominent defenders of ancient Greek sculptural polychromy, who had delivered a lecture at the Académie des Beaux-Arts in Paris in which he introduced his observations on ancient architectural polychromies in 1824. Hittorf published extensively on polychromy in the 1830s, and his monograph on a temple in Selinus in Sicily made him among the most prolific authorities in that matter on the European continent.<sup>78</sup>

Victor Place, whom we had encountered previously and who continued to excavate in Khorsabad between 1852 and 1855, devoted a special chapter in his *Ninive et l'Assyrie* to the polychromy on the stone façades of the reliefs discovered there (**Figures 1.5 and 1.6**).<sup>79</sup> We have seen that Place, along with Botta, Flandin, and Layard, made frequent reference to remnants of paint on the Assyrian reliefs. Yet when it came to his subsequent presentations of the issue of polychromy he drew back from the trend to revel in colorful constructions. Place's personal aesthetic predilections may have been one reason for his "whitewashing" of the ancient palaces.

One of Place's comments on the subject of recent approaches toward repainting the past in London reveals his criticism that

the coloring of the bas-reliefs is a delicate issue, more relevant to pure decoration than construction. It is . . . important to know to what extent this practice was part of the Assyrians' customs, and whether or not they felt it necessary to enhance the intrinsic value of their sculptures by partially or totally coloring them. Several people, *in unnecessary attempts* to restore them, did not hesitate to apply color on the entire surface of the bas-reliefs, including the weapons, the clothes, the faces, the flesh, the beards and the hair. It seems to us that this is going way too far. There is no doubt that polychrome sculpture has been known since ancient times, and that the Assyrians did use such a natural method of depicting.<sup>80</sup>

<sup>78</sup> Gau 1822; Hittorf 1830, 1846–51; cp. Hammer 1968; Kiene 2019; Kiene et al. 2016; Middleton 1982; Pisani 2003, 2021; Schneider 1977.

<sup>79</sup> Place 1867–70, vol. II: 82–4.

<sup>80</sup> "Le coloriage des bas-reliefs est une question délicate qui appartient à la décoration pure plutôt qu'à la construction. Il est donc important de savoir quelle part les Assyriens en ont tirée, et s'ils ont cru nécessaire d'ajouter au mérite intrinsèque de leurs sculptures le secours d'un coloriage général ou partiel. Plusieurs personnes, *dans la restauration plus ou moins justifiée*, n'ont pas hésité à étendre des couleurs sur toute la surface des bas-reliefs, armés, vêtements, figures, chair, barbe et chevelure. *Suivant nous, on est allé beaucoup trop loin dans cette voie*. Que la sculpture polychrome ait été connue dès les temps les plus anciens, et que les Assyriens aient pratiqué un procédé aussi naturel d'imitation, cela ne fait doute pour personne" (Place 1867–70, plates 20–1; trans. mine).



1.5. Hero holding a lion, from Dur Sharrukin, modern Khorsabad, Iraq, 721–705 BCE, alabaster, today in the Louvre, Paris, detail. Excavated by young Arab men under the direction of western “diplomats” in the mid-nineteenth century, the colossal stones were then transported and shipped to west Europe. Pauline Albenda, Astrid Nunn, Ariane Thomas and other scholars have summarized what we know about the polychromies of these early Mesopotamian stone sculptures. Photo: Fedor Selivanov, Alamy Stock Photo





1.6. Painted detail from a relief from Dur Sharrukin, modern Khorsabad, Iraq, 721–705 BCE, alabaster, today in the Louvre, Paris. Photo: Author

Was Place influenced by the Parisian environment in which discussion of the polychrome phenomenon was highly charged with aspects of orientalism? In retrospect, regarding the issue of polychromy on Neo-Assyrian palace reliefs, Place was following only along the lines of vagueness that had characterized Flandin's statements. In the plates accompanying Place's text volumes on *Ninive et l'Assyrie*, executed by Felix Thomas (1815–75), all stone sculptures on the front of the Gate of the Palace of Sargon at Khorsabad were depicted as white.<sup>81</sup>

Recently, David Batchelor has listed several nineteenth-century polemical writings in which "chromophobia" was evident, including the 1867 publication *Grammaire des arts du dessin* by the Parisian color theorist Charles Blanc (1813–82). According to Blanc color signified an "internal threat, an ever-present inner other which, if unleashed, would be the ruin of everything, the fall of culture."<sup>82</sup> Batchelor sought to identify a direct link between ancient philosophers and authors like Pliny to these nineteenth-century philosophical discourses on color. In Batchelor's words, already Pliny had placed color "at the wrong end of the opposition between the occidental and the oriental, the

<sup>81</sup> Place 1867–70. <sup>82</sup> Batchelor 2000, 23.

Attic and the Asian, in a belief that the rational traditions of western culture were under threat from insidious non-western sensuality.”<sup>83</sup>

Indeed, there is other evidence for a more modest take on constructing ancient polychromies in the 1860s. The Egyptian temple reconstructed by the then well-known Egyptologist Auguste Mariette (1821–81) for the 1867 World Exposition in Paris had a reduced polychromy, even though only fifteen years before the famous statue of an ancient Egyptian Scribe had been excavated in a tomb at Saqqara attesting once again to the vivid original polychromy of ancient Egyptian sculpture.<sup>84</sup>

In “Chaldaeia and Assyria,” a volume in one of the more popular encyclopedias on ancient arts for the educated European, *Histoire de l’Art*, published in 1890 by George Perrot (1832–1914) and Charles Chipiez (1835–1901), the authors took their own stand on the issue of polychromy. They argued that in Egypt “hardly a square inch of surface can be found over which the painter has not drawn his brush, [while] elsewhere, in Greece for instance, we shall find him more discreet, and his artificial tints restricted to certain well-defined parts of a figure or building.” The question that arose for Perrot and Chipiez was whether the Assyrians were following the Egyptians or whether they would “strike a line of their own, and [would have] set an example of the reserve that was afterwards found favor in Greece.”<sup>85</sup> Their answer was clear in that

the Assyrian reliefs were coloured, but they were not coloured all over like those of Egypt; the grain of the stone did not disappear, from one end of the frieze to the other, under a layer of painted stucco. . . . The sculptor of Assyria was as ready to mix colour with his contours as his *confère* of Egypt, but he made use of it in a more sober and reserved fashion.<sup>86</sup>

In reviewing the debates of the second half of the nineteenth century, we can simply state that polychrome casts of ancient palace reliefs in public displays were an important feature and inspired discussion.<sup>87</sup> Few nineteenth-century polychrome casts of ancient palace reliefs are preserved today, such as those in the Museum für Vorderasiatische Kunst in Berlin (**Figure 1.7**).<sup>88</sup> It is interesting to note that the backgrounds of the reliefs are painted in green. Details such as the coats of winged demons come in alternating colors, and human skin is depicted in a reddish color. An Assyrian Room, which opened in 1865 in the

<sup>83</sup> Batchelor 2000, 29.

<sup>84</sup> Ziegler 2002. Nineteenth-century research on ancient Egyptian polychromy was then summarized in Bissing 1898.

<sup>85</sup> Perrot and Chipiez 1892, 244–5. For an updated view on the work of Perrot and Chipiez, see Briant 2019.

<sup>86</sup> Perrot and Chipiez 1892, 245, 249–50. <sup>87</sup> E.g. Aldenhoven 1896; Kader 2004.

<sup>88</sup> Vorderasiatisches Museum, Berlin, VAG 19 and VAG 1072; plaster cast of original relief VA 962, ninth century BCE Northwest Palace at Kalhu/Nimrud; Rehm 2018, 141, 150, nos. 43, 85, and 424–5, figures 103–5.



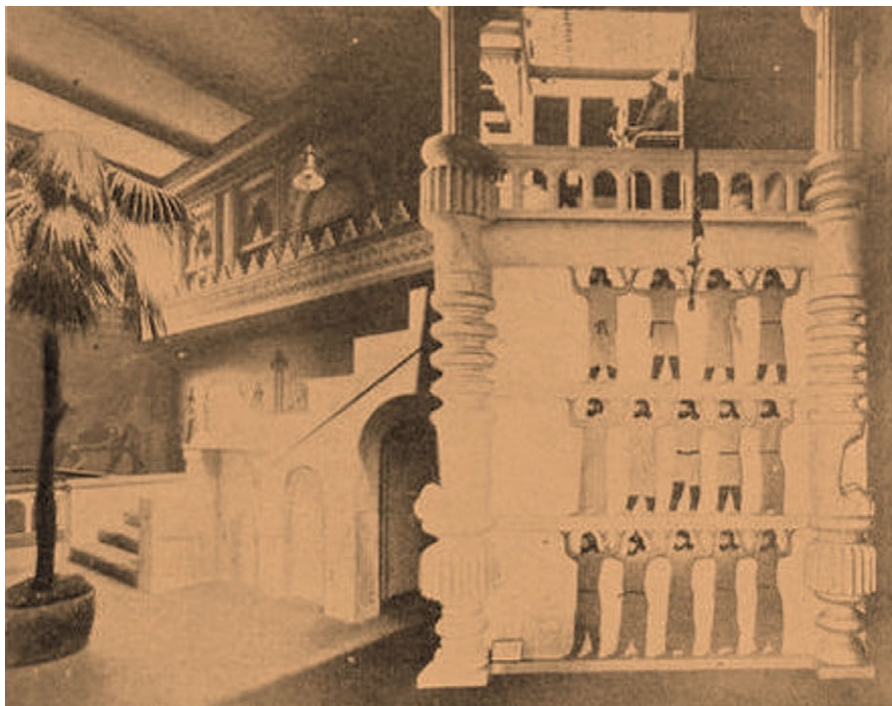
1.7. Painted plaster cast of an Assyrian stone slab (883–859), nineteenth century, Vorderasiatisches Museum, Berlin, VAG 19, artist unknown. The original slab from the ancient site of Nimrud in Mesopotamia is also housed in Berlin. Photo: Staatliche Museen zu Berlin, Vorderasiatisches Museum / Olaf M. Teßmer

Glyptothek in Munich, featured polychrome colossal cast Lamassus and painted scenes from Layard’s publications alongside original seven original Nimrud northwest palace limestone slabs King Ludwig had acquired from London in 1863.<sup>89</sup> After the death of Leo von Klenze early in 1864, Georg von Dollmann (1830–95) oversaw the execution of the polychromy of the two lamassu statues in the Assyrian Room. Paul Wolters (1858–1936), who would later become director of the Glyptothek, described the installation as “arg missglueckt.”<sup>90</sup> Finally, a late nineteenth-century construction of polychrome plaster casts in Washington, DC should be mentioned. It featured entirely painted Lamassus and a partly painted plaster cast of a relief from the Hall of 100 Columns at Persepolis. This relief depicting a jamb of a door in the Hall of 100 Columns of

<sup>89</sup> Description of the Assyrian Room in the Glyptothek in Munich: Brunn 1887; Gaugengigl 1870; Gebhard et al. 2009, 440, figure 4; Rehm 2018, 229–31; Thiemann 2009, 14–9. I am grateful to Dr. Erwin Emmerling, chair of the Lehrstuhl für Restaurierung, Kunsttechnologie und Konservierungswissenschaft, Technische Universität München, for facilitating access to the important dissertation of Thiemann. Back then, the Glyptothek was already home to a painted miniature plaster version of the pediments of the temple of Aphaia at Aegina, c. 500 BCE, by the German architects Leo von Klenze (1784–1864) and Joseph Ohlmüller (1791–1839), to which a new version was added by Adolf Furtwängler (1853–1907) in the early twentieth century. Klenze himself passed away in January 1864 before the room was officially opened. The harsh criticism on the polychrome reconstruction of the Lamassu casts in Munich is still evident in Schwahn 1983, 200–1.

<sup>90</sup> Wolters 1921; Schwahn 1983, 201 uses the phrase “deutlicher Niveauabfall” (“noticeable lapse in standards”).





1.8. Installation of an imaginary throne of a Persian king in Washington, DC's Hall of the Ancients, c. 1900. This Xerxes near the White House is a rare example of an exciting creative engagement with the then excavated ruins at Persepolis or Takht-e Jamshid. Photo: National Galleries of History and Art

Persepolis became part of a throne installation on which a dummy depicted an imaginary Great King, Xerxes (**Figure 1.8**).<sup>91</sup>

Even though most of the painted plaster casts are no longer preserved, we can appreciate the palette and patterns of polychromy application from contemporary descriptions and pictorial documentation. It is important to stress, however, that these polychrome reconstructions were artistic creations in their own right. Their contribution to our understanding of the original polychrome palette of ancient environments is, therefore, perhaps rather limited. The fact that these casts were fully painted does, however, attest a belief in an overall polychrome treatment of the original monuments. It also allowed public interest in participating in the debate on the polychromy of ancient western Asian stone reliefs.

#### DEBATING ANCIENT POLYCHROMIES FROM WESTERN ASIA IN THE TWENTIETH CENTURY

The popularity of displaying painted plaster casts alongside original monuments in museums displaying originals from the sites decreased in the early

<sup>91</sup> Smith 1897. Unfortunately, these casts were destroyed long before World War II.

twentieth century. The Nineveh Court in the Crystal Palace in Sydenham burned down in a fire in 1866 and was never rebuilt. Polychrome casts in the Assyrian Room in Munich and later in Berlin were taken off display in the early twentieth century. The Halls of the Ancients in Washington, DC went out of business. With few exceptions, newly found sculptures were rarely displayed in or alongside polychrome reconstructions.<sup>92</sup> An early twentieth-century statement by the German scholar Botho Gräf (1857–1917) referring to the habit of displaying painted casts in general is indicative of understanding changing aesthetics: “A white plaster cast is honest, a painted one an illusive baublerie. Perhaps it would be a pleasant décor in a living room; in a museum it does not belong.”<sup>93</sup> As for a general dislike of polychrome in the built environment, the influential Irish artist James Ward (1851–1924) noted that the “people of our own countries have been so unaccustomed to coloured buildings for the last three or four hundred years that a strong prejudice against the use of colour in architecture has been developed and is maintained even at the present day.”<sup>94</sup>

Throughout most of the twentieth century, there was little interest in synthetic, much less theoretical discussions about the extent of original polychromies on the ancient monuments of western Asia. In his monograph on Assyrian glazed objects, Walter Andrae (1875–1956) summarized for Assyrian art: “Taken individually, the colors are often so abundant and shimmering that it is impossible to observe them from a close distance without one’s eyes hurting. And yet, taken together, they are necessary and remain indispensable to the whole.”<sup>95</sup> Reliefs with traces of paint continued to be excavated in private houses at Assur alongside polychrome figurines, and all the evidence that Andrae discovered might have opened up the possibility of wide ranging studies about polychromy in ancient western Asia or specifically its place in the Neo-Assyrian environment.<sup>96</sup> Ironically, however, when Andrae designed a reconstruction of an Assyrian palace interior for the Vorderasiatisches Museum in Berlin, which opened in 1931, he rejected the incorporation of any of the

<sup>92</sup> One rare exception is the original bust of Nefertiti, excavated in 1913 (Teeter 2012, 165, figure 35). A painted Nefertiti *model* was acquired by the Institute for the Study of Ancient Cultures Museum in Chicago in 1923. For comments related to the ban of mold making from the originals, see Kraus 1987–92; analysis of paints on the head of Nefertiti: Wiedemann and Bayer 1982.

<sup>93</sup> “Ein weißer Gipsabguss ist ehrlich, ein bemalter eine täuschende Spielerei, sie kann vielleicht erfreulich in der Ausstattung von Wohngemächern wirken, in ein Museum gehört sie nicht” (trans. mine). Extracted from a lecture, delivered in November 1907 in Jena, Germany, cited in Kader 2008, 235–6.

<sup>94</sup> Ward 1913, 5.

<sup>95</sup> Andrae 1923, 1: “Im einzelnen sind die Farben oft so übermäßig und flirrend, dass es unmöglich ist, sie ohne Augenglimmern aus der Nähe zu betrachten: Und doch: im Gesamtbild werden sie notwendig und unentbehrlich” (trans. mine).

<sup>96</sup> Andrae 1923, 15 and plate 10; figure 7; 27 and plate 30.

painted plaster casts of orthostat reliefs that had previously been on display in Berlin. Instead he installed original orthostat reliefs on the walls of this gallery and placed them against a deep red painted background. Plaster casts of winged Lamassu guardian figures from the British Museum completed this display but were left “white.”<sup>97</sup>

One of the more influential twentieth-century scholars working on ancient architectural and sculptural polychromy, Patrik Reuterswärd (1886–1971), did not cover the region east of the Mediterranean in his work.<sup>98</sup> This is a significant index of dampening of interest in the context of polychromy in the ancient world broadly speaking at midcentury. In 1972, a conference was held on “The Realms of Colors,” designed to explore color in the literary traditions of major world civilizations.<sup>99</sup> The papers are valuable contributions to the study of color through literary texts, including one on conceptions of color and color symbolism in Homeric Greece, one on colors in Jewish tradition, and one on light and color in nineteenth-century Iran.<sup>100</sup> There were few exceptions: Benno Landsberger (1890–1968) published a landmark study on color terms in Sumerian and Akkadian in 1967. Anton Moortgat (1897–1977) and Eckhard Unger (1884–1966) summarized the evidence for wall paintings across pre-Achaemenid western Asia in 1959 and in the influential *Reallexikon der Assyriologie* (1971), while wall paintings continued to be found in excavations on sites along the Euphrates and the Tigris. In 1936, well-preserved wall painting fragments from a Neo-Assyrian Palace at Til Barsip in Syria were published, and pigments from the site were briefly discussed.<sup>101</sup> Horses on the paintings led to the suggestion that Assyrian kings dyed their real horses blue, an interesting hypothesis not picked up, however, by later scholars.<sup>102</sup> While Assyrian wall painting fragments were continuously being studied,<sup>103</sup> they were not discussed in the context with the paintings and colors noted on the carved stone monuments found nearby. This polychromatic aspect of three dimensional sculptures or bas reliefs, by contrast, was treated only marginally: Samuel Paley (1941–2010) commented on these issues in his publication on Neo-Assyrian palace art, and became a strong advocate of a total polychromy of the Assyrian reliefs.<sup>104</sup> As mentioned previously, Astrid Nunn also discussed the issue.<sup>105</sup> Notably, she extended her study to incorporate the Achaemenid period by citing observations on the polychromy of the reliefs at Persepolis that had been just recently published then by Giuseppe and

<sup>97</sup> Jakob-Rost 1992.    <sup>98</sup> Reuterswärd 1958, 1960.    <sup>99</sup> Portman and Ritsema 1974, vii.

<sup>100</sup> Corbin 1974; Rowe 1974; Scholem 1974.

<sup>101</sup> Thureau-Dangin and Dunand 1936; cp. Abbate 1994; Granger 1933.

<sup>102</sup> Reade 1979, 32. The tradition of blue painted horses in art continued in western Asia until much more recent times, see, e.g. Stanley 2021, 180 no. 138 (watercolor on paper).

<sup>103</sup> Albenda 2005; Tomabechi 1980, 1983a, 1983b.    <sup>104</sup> Paley 1976, 10–1.

<sup>105</sup> Nunn 1988, 229–34.

Ann Britt Tilia (see Chapter 4). Peter Roger S. Moorey (1937–2004) offered a brief analytical overview of the material evidence for polychromy on ancient western Asian relief sculpture making full use of the Persepolis material revealed by then. In addition, Moorey reviewed the state of research on pigment material sources and analysis available to him at the time.<sup>106</sup>

A prolific student and advocate for the analysis of pigments from painted stone sculptures of premodern times was Rutherford John Gettens (1900–74). With his study of the evidence from Buddha statues in Afghanistan he offered an important model and recognized the importance of the conservation of the materials and pigment analysis early on.<sup>107</sup> Gettens was particularly influential in the formation of the first collections of pigment samples in western museums. Altogether, however, discussion on whether the monuments were partially or entirely painted remained vague.<sup>108</sup> The few discussions on Achaemenid Persian polychromy introduced here remained therefore largely isolated.

In sharp contrast to this situation for the regions of western Asia, the twentieth century saw great progress in the investigation of aspects of ancient Egyptian polychromy, painting techniques, color, and color symbolism. In his landmark study *Ancient Egyptian Materials and Industries*, Alfred Lucas (1867–1945) laid the groundwork for a technically advanced investigation of ancient Egyptian painting materials.<sup>109</sup> Between 1980 and 1991, the Egyptian-German multidisciplinary collaboration project “Zusammensetzung altägyptischer Farbpigmente und ihre Herkunftslagerstätten in Zeit und Raum” set new standards in a more systematic study of ancient Egyptian pigments and colorization, which is unsurpassed today.<sup>110</sup> Major conferences on pigments, paints, and polychromies in ancient Egyptian culture have been held in the last two decades in Europe and in the United Kingdom, in 1996 and 1998.<sup>111</sup> Research into pigment production in Egypt is particularly relevant for the Achaemenid Persian Empire, too, especially as it relates to pigments excavated on the site of Elephantine, a Persian colony of major importance.<sup>112</sup>

<sup>106</sup> Moorey 1994, 79–105, 326. <sup>107</sup> Gettens 1937–8.

<sup>108</sup> E.g. for polychromy on monumental stone sculptures from Nimrud: Stearns 1961, 20 n. 40 with references; Reade 1979, 18; Reade 1983, 29–30, figures 22, 24.

<sup>109</sup> Lucas 1926, 4th ed. 1962. The standard handbook has now been superseded with a volume edited by Nicholson and Shaw 2000. See here, especially the chapter “Painting Materials” (Lee and Quirke 2000). Important works on paints, pigment, and color symbolism in ancient Egyptian art include Aufrère 1991; Baines 1985; Barbotin 2014; Colinart and Pagès-Camagna 2001; Davies 2001; El-Leithy et al. 2019; Forbes 1965; Jacksch 1985; Kees 1943; Lauer 1993; Pagès-Camagna and Raue 2016; Schenkel 1963; Tanre 2008.

<sup>110</sup> Blom-Böer 1994: Some 1,400 samples from 145 monuments from the mid-third millennium to c. 96 CE were analyzed; see, now, Blom-Böer 2020.

<sup>111</sup> Colinart and Menu 1998; Davies 2001; Tefin 1997.

<sup>112</sup> Pagès-Camagna and Raue 2016.

All these publications, and an increasing demand for detailed investigations, have contributed to a greater awareness among all experts involved. The two comprehensive works by Moorey, *Materials and Manufacture in Ancient Mesopotamia: The Evidence of Art and Archaeology* (1985) and *Ancient Mesopotamian Materials and Industries: The Archaeological Evidence* (1994) can be seen as the equivalent of Lucas' (1926) *Ancient Egyptian Materials and Industries* in the field.

Scholars made a similar process to understand better the extents as well as the process of polychromy in wider ancient Mediterranean art. Since 1982 Volkmar von Graeve, followed by Vinzenz Brinkmann and an interdisciplinary team, has worked together with the Doerner-Institut in Munich, supported by the Deutsche Forschungsgemeinschaft, to investigate aspects of ancient Greek polychromy.<sup>113</sup> In France, Denmark, Italy, and Greece projects focusing entirely on polychromies have been initiated by Hariclia Brekoulaki, Brigitte Bourgeois, Philippe Jockey, Clarissa Blume, Agnes Rouveret, Jan Stubbe Østergaard, Paolo Liverani, and Ioanna Kakoulli, respectively.<sup>114</sup>

It is only very recently that a new wave of systematic analysis of polychromies in any ancient western Asiatic contexts has been undertaken and the impetus has come mainly from conservation scientists and field archaeologists.<sup>115</sup> Positions on the extent of polychromy on the surface of ancient stone monuments remain, however, mainly unchallenged. It seems we have not made much progress from the days of Layard. A recent statement is symptomatic of the attitude: "Although little paint survives today, some figures *may* have been completely colored or, possibly more generally, paint was used for special effect."<sup>116</sup> It should therefore not come as a surprise that nearly all movies set in ancient interiors, imaginative as they are, continue to favor almost exclusively monochrome monuments in the background. Early examples include scenes in *Intolerance* (D. W. Griffith, 1916), *Alexander the Great* (R. Rossen, 1955) and *Solomon and Sheba* (K. Vidor, 1959). More recent examples are the groups of monuments reconstructed in the triumphal procession of Alexander in Babylon in *Alexander* (O. Stone, 2004) or the 2021 *Eternals* movie directed by Chloé Zhao.<sup>117</sup>

<sup>113</sup> E.g. Brinkmann 2003; Brinkmann et al. 2017.

<sup>114</sup> E.g. Becker 2020; Blume 2015; Blume-Jung 2020, 2021; Bourgeois et al. 2007; Brekoulaki 2000, 2006a, 2006b; Jockey and Bourgeois 2001, 2003, 2005a, 2005b, 2005c; Kakoulli 2009; Liverani 2005; Liverani and Santamaria 2014; Monteix 2012; Rouveret and Walter 1998; Rouveret et al. 2006; Stubbe Østergaard and Nielsen 2014 (for a combination of research and mining ancient textual traditions and materials).

<sup>115</sup> E.g. Bollati 2008; Gebhard et al. 2009; Karmous et al. 2006; Kidd et al. 2004; Lippolis 2009; Paley and Hendrix 2008; Shaer 2003.

<sup>116</sup> Collins 2008, 27, emphasis mine.

<sup>117</sup> The British classicist Robin Lane Fox was the consultant for *Alexander* (Cartledge and Rose Greenland 2010).



Today, scholars on aspects of ancient polychromy are well aware of how fruitful it can be to apply a combination of methods from various scientific fields and disciplines. Systematic investigations into the extent and role of polychromy of ancient monuments with combined multidisciplinary approaches have been developed. Initiatives from neighboring disciplines can assist in the process and show that progress can be made if collaboration takes place. Foremost are studies on how to reconstruct certain aspects of polychromy in Greek, Roman, and Egyptian art, where scholars are often able to build upon an earlier tradition of comprehensive studies.<sup>118</sup> The International Committee of Museums and the International Committee for Conservation have collaborated on a series of conferences highlighting recent research on architectural and sculptural polychromy.<sup>119</sup>

In conclusion we might state that since the arrival of the first ancient monuments in European museums, scholars have only occasionally dealt with the matter of the original polychromatic treatment of the palace reliefs. The situation stands in sharp contrast to research conducted on ancient Egyptian, Greek, and Roman sculpture. Because of nineteenth-century polychrome reconstructions, however, the layperson was able to consider aspects of and at least better informed about ancient polychromies than we are today. The early displays of polychrome ensembles in London, Munich, Berlin, and Washington, DC, provided popular settings in which discussion would have been provoked. The brightly painted casts of those days were excellent examples of the public education that nearly all contemporary museum displays fail to offer as a means of educating the public about ancient polychromy. In that sense, the nineteenth century can therefore be seen as an enlightened era. While this mission of public education was laudable, an appreciation of the polychromies of ancient monuments competed with the imperatives of preserving and documenting the accuracy of the presentation of the material record. Examples like the ones introduced serve as reminders that histories of color are only as firm as the available evidence, which can change dramatically with new finds and new technologies applied in the determination of pigments and surface coatings.

<sup>118</sup> The French industrial chemist Jean Antoine Chaptal (1756–1832) already performed chemical tests on pigment samples found at Pompeii: Caley 1946; Chaptal 1809; Wallace 1927; Important works on polychromies on ancient stone (and in some cases, modern receptions) include Abbe 2015; Aggelakopoulou and Bakolas 2022; Aliatis et al. 2009, 2010; Augusti 1967; Béarat et al. 1997; Bracci et al. 2015; Bradley 2009; Brinkmann and Wünsche 2004, 2007; Cleland and Stears 2004; Dimitriou 1951; Fridell Anter 2006, 2008; Grimaldi 2021; Hendrix 2000; Jockey 2007, 2018; Jockey et al. 2009; Kargere 2012; Knuutinen et al. 2007; Kottaridi 2006; Liverani and Santamaria 2014; Mercier and Sanyova 2012; Mulliez 2019; Posamentir 2006; Rees-Jones 1990; Şare Ağtürk 2021; Siotto 2017; Skovmøller 2020; Stager 2022; Tiverios 2002; Villard 2002; Yvantidis 1984; Zink and Piening 2009.

<sup>119</sup> Litjens and Seymour 2017.

## WHAT REMAINS: PRESERVING THE PAINTS OF ANCIENT PALACE FAÇADES

It is impossible to write a historiography of modern polychromy research on ancient architectural reliefs in the last two centuries without referring to efforts that were undertaken to *preserve* the remaining traces of paint on the monuments. While much has been written about the development of the field of conservation in the nineteenth century, these writings are, with few exceptions, less concerned with the treatment of the fragments that were extracted from the earths of western Asia.<sup>120</sup>

When de Longpérier documented traces of paint on the reliefs from Khorsabad in the Louvre in February 1847, he noted their fragility. His colleague in London, British Museum curator Edward Hawkins (1780–1867), commented on the fragility of the surface of the stone reliefs. Yet it is known that molds for the creation of casts were allowed to have been made before 1849.<sup>121</sup> Furthermore, it is reported that Layard, who would have had the best opportunity to document the surface of the monuments at the moment of their recovery in the field, *whitewashed* panels on the site so that he could draw them better.<sup>122</sup> Adding to the endangerment of evidence, two stone bulls excavated at Khorsabad, acquired by the British Museum in 1851, had to be “left outside, partially exposed to the weather under the Museum colonnade,” owing to the lack of space, before they found their new home in the British Museum.<sup>123</sup>

With increasing requests for casts, the curators in Paris and London often faced similar problems. De Longpérier became increasingly concerned about the fragility of the surface of the originals and refused to have moldings made for commercial purposes.<sup>124</sup> Although a cast workshop had existed in the Louvre since the early nineteenth century, it was only in the 1850s that activities increased. In May 1851, de Longpérier contacted the chemist Jules Reiset (1818–96) to learn whether the process of molding would harm the surface of the originals.<sup>125</sup> After receiving Reiset’s answer, de Longpérier became even more hesitant to embark on new mold-making experiments.<sup>126</sup> That these concerns remained only episodic is evident, however, from the correspondence preserved between London and Paris concerning the production of casts from molds for exchange. Official requests for taking molds of original monuments in order to duplicate and paint them were made in subsequent years by the “Crystal Palace Company,” represented by the very same James Fergusson who had claimed that at least in Paris the making of

<sup>120</sup> Brajer 2013; Burnett Grossman et al. 2003; Conti 2007.

<sup>121</sup> Reade 2008, 14.

<sup>122</sup> Reade 2000, 614 n. 42. <sup>123</sup> Jenkins 1992, 158.

<sup>124</sup> Letter, November 8, 1850: Rionnet 1996, 45 n. 19.

<sup>125</sup> Rionnet 1996, 40, 45 n.17; letter from May 10, 1851.

<sup>126</sup> Rionnet 1996, 47.

molds had done no harm to the originals in the past, as well as foreign institutions such as the Prussian government in Berlin.<sup>127</sup> Hawkins continued to be hesitant to allow new molds being made for reasons of the sculptures' fragility.<sup>128</sup> On December 10, 1853, the Trustees of the British Museum, however, agreed to allow more molds to be made but required that they be protected with tin foil wherever color appeared.<sup>129</sup>

In the meantime, the requests for casts for the Crystal Palace in Sydenham led to further mold-making from original reliefs in Paris in 1853 by Pierre-Laurent Micheli, director of the Louvre's *Atelier de Moulages*.<sup>130</sup> In 1855, casts of all Nimrud sculptures then in the British Museum became available for sale.<sup>131</sup> However, a few months before (on August 18, 1853), Layard filed complaints against the authorities in the British Museum, inquiring regarding the "cleaning" of an Assyrian head in the galleries.<sup>132</sup> Jonah Siegel has recently collected some primary sources on a debate about the display and the cleaning of the Nineveh reliefs that took place in 1857. Here are excerpts from the discussion and the answers given by Hawkins in a public hearing:

- Q. "Have the alabaster slabs in the Assyrian Room undergone any change?"  
 A. "They are getting dirty of course, but I am not aware that they are damaged in any other respect. The material is such that any application of water must necessarily injure them."  
 Q. "What means are taking for cleaning them?"  
 A. "They have never been otherwise cleaned than merely being dusted with a feather, or something of that kind, they are not allowed to be touched with anything hard. We touch them as little as possible."<sup>133</sup>

<sup>127</sup> Letter from August 8, 1853; Reade 2008, 14.

<sup>128</sup> Reade 2008, 14 referring to a letter of Hawkins, December 7, 1853. <sup>129</sup> *Ibid.*

<sup>130</sup> In November 1853 a set of casts was made of the Khorsabad bulls (AO 19857 and AO 19858; Rionnet 1996, 121 n. 13–4), the winged genius (Rionnet 1996, 122 n. 16), and others (Rionnet 1996, 121–2). Also, from monuments from Nimrud and Nineveh casts were made (124–5). The British criticized the molds for their imperfection (Rionnet 1996, 129; letter, November 14, 1854), but the Louvre refused to produce new molds (Rionnet 1996, 21 n. 35). In exchange for the casts that were allowed to be taken earlier, Lottin de Laval was allowed to make casts of the British Museum Nimrud monuments. The casts were obviously displayed along the originals in the Louvre, joined by another cast of a bull, executed in 1856 by Maximilien Pellegrino Togneri, although they are not mentioned in the contemporary guidebooks. The cast collection of the Louvre was, in fact, kept in the neighboring rooms to the Assyrian rooms. From the new acquisitions from Place's excavations at Khorsabad, a new series of monumental sculpture arrived in Paris in 1856 (AO 19859), and new casts were molded and available for sale by 1864 (Rionnet 1996, 121, catalog no. 12).

<sup>131</sup> Reade 2008, 15. <sup>132</sup> *Ibid.*

<sup>133</sup> Siegel 2008. On the harm of past cleanings of Neo-Assyrian reliefs in museums now see also Thavapalan 2019b, chapter 4, and Thavapalan et al. 2016.

To conclude, little has been written about aspects of cleaning of ancient stone sculpture on the sites and in European museums in the nineteenth century. We may infer, however, that personal dislikes figure between museum curators and those who were considered experts on material and deterioration continued to be played out against the background of ancient sculpture.<sup>134</sup>

<sup>134</sup> Indicated by Jenkins 2001, esp. 4–6; Oddy 2002. Modern treatment of ancient sculpture is also reported for the sculpted panels of the Amazon frieze from the Mausoleum of Halicarnassus, which, when removed originally in 1845, “were covered with thick whitewash which preserved them” (Jenkins et al. 1997, 37). Fragments of stone from the Mausoleum were found with abundant traces of paints (Cook et al. 2005, 30; Jenkins 2006, 39, figures 20–2 and 218; Jenkins et al. 1997, 38; Jeppesen and Luttrell 1986, 207).

