CHAPTER

16

An Early Anatolian Ivory Chair: The Pratt Ivories in The Metropolitan Museum of Art

Elizabeth Simpson

Between 1932 and 1937, the Metropolitan Museum of Art received four donations from Mr. and Mrs. George D. Pratt, consisting of ivory furniture attachments accompanied by numerous clay seal impressions (bullae), fragments of pottery vessels, and ivory figurines and large plates (Fig. 16.1).* Unfortunately, the ivories were not scientifically excavated, making it difficult to

*I wish to thank the Department of Ancient Near Eastern Art, Metropolitan Museum of Art, New York, for allowing me to study the Pratt ivories in the museum's collection, which I photographed and drew over a period of years beginning in 1989. I am grateful to Joan Aruz for permission to reproduce photographs of the ivories from the files of the department as well as those already published in *Beyond Babylon: Art, Trade, and Diplomacy in the Second Millennium* B.C. (Aruz, Benzel, and Evans, eds., 2008). I extend special thanks to Nimet Özgüç for permitting me to study, photograph, draw, and publish the ivory wing excavated at the site of Acemhöyük and now in the Museum of Anatolian Civilizations, Ankara. I also wish to acknowledge Allan and Daniela Gilbert, Michelle Hargrave, Geoffrey Killen, Robert Koehl, Robert Koestler, Oscar White Muscarella, Daniel Olson, Latif Özen, Aliye Öztan, Anibal Rodriguez, Emel Yurttagül, and many kind colleagues at the Metropolitan Museum of Art, the Museum of Anatolian Civilizations, Ankara, and the American Museum of Natural History, New York, for their assistance and support. Responsibility for the discussion published here, however, rests solely with the author.

Photographs and drawings are by the author, except Figures 16.4, 16.5, and 16.30 (right), which are reproduced courtesy of Nimet Özgüç, and Figures 16.1, 16.14–16.18, 16.25, 16.27, 16.28, and 16.37:**P12**, **P13**, and **P15**, which are reproduced courtesy of The Metropolitan Museum of Art. Figures 16.2, 16.3, 16.6–16.13, 16.19–16.24, 16.26, 16.29, 16.30 (left), 16.31–16.36, and 16.37:**P17** © Elizabeth Simpson.

Figure 16.1. Ivory furniture attachments, terracotta fragments, and sealings donated to The Metropolitan Museum of Art in 1936 by Mrs. George D. Pratt, in memory of George D. Pratt. Photo © The Metropolitan Museum of Art.

Figure 16.2. Burned remains of the Sarıkaya palace at Acemhöyük (level III). Photo E. Simpson.

Figure 16.3. Earth and burned bricks in the area of the palace where the ivory wing **AH1** was excavated in 1965. Photo E. Simpson.

understand how the various pieces were related and to what sorts of objects they belonged. Study has now shown, however, that many of the ivory attachments can be associated with one magnificent piece of furniture—a chair or throne with ivory legs and other fittings that were gilded and apparently stained red. Moreover, close similarity between the ivories in the Metropolitan Museum and several excavated from the site of Acemhöyük in central Anatolia, particularly the fragmentary wing of a falcon, indicates that the Metropolitan Museum pieces came from that site (Figs. 16.2–16.5). Although examples of earlier ivory furniture legs survive from Egypt (Baker 1966, fig. 1; Barnett 1982, 18) and evidence for the working of ivory can be found in Mesopotamian texts dating from the third millennium B.C.E. (Barnett 1982, 39), the Pratt furniture legs and associated plaques constitute the earliest and most complete remains of an elaborate ivory chair from antiquity (Figs. 16.6–16.37). I am pleased to present the results of my research on this chair to Guenter Kopcke, whose interest in and contribution to the study of ancient furniture has been lasting and significant (Kopcke 1967).

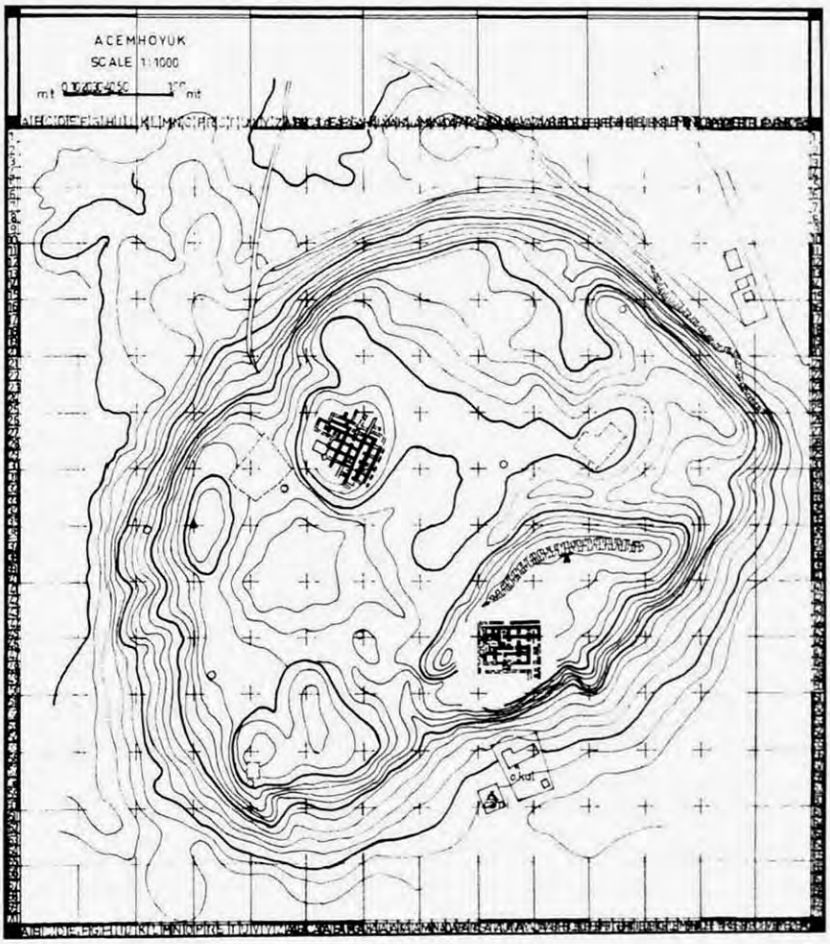

Figure 16.4. Plan of the mound at Acemhöyük, showing the Sarıkaya palace (lower right) and the Hatipler palace (upper left). N. Özgüç 1980, plan 1.

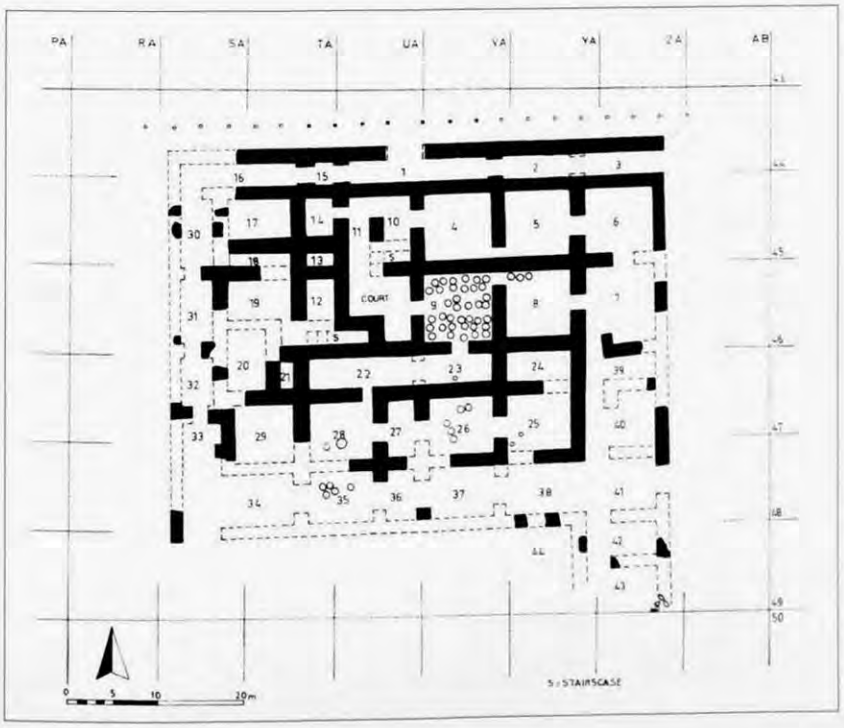

Figure 16.5. Plan of the Sarıkaya palace at Acemhöyük; the ivory wing **AH1** and the remains of other precious objects were found in the western section of the palace (room 31). T. Özgüç 2003, 128, fig. 90.

History of Acquisition

In 1932, the Metropolitan Museum received three small ivories as a gift from George D. Pratt: two sphinxes carved in the round and a plaque depicting a rampant lion (Winlock 1933, 24). The sphinxes were colored, one pink and one dark red, and both had traces of gilding remaining on their hair (**P1, P2**; Figs. 16.6–16.8). Gilding also survived on the eyes of the pink sphinx, with one eye retaining a small piece of inlay (Fig. 16.17). The lion plaque was gray, with a flat back. All three pieces had cuttings for attachment, and it was clear that each had once belonged to a larger object. At the time, the sphinxes were considered to be "little ivory stool legs," of Phoenician or Syrian manufacture, said to be similar in style to ivories found at the Assyrian capital of Nimrud. Accordingly, these were thought by curator Maurice Dimand to date to the early first millennium B.C.E. (Winlock 1933, 24).

Four years later, following the death of George Pratt in 1935, his wife, Vera, gave the museum many more ivories that the Pratts had collected from what was presumably the same source. These were acquired by the museum in three groups in 1936 and 1937 (Dimand 1936, 1937). The first consisted of "23 carved ivories from furniture; 170 ivory fragments of a chair or stand" (Metropolitan Museum of Art Gift 1936). Along with this first group came "41 fragments of terra-cotta objects" and "18 clay sealings" (seal impressions). As with the 1932 gift, these ivories were initially thought to be Syrian, from the early first millennium B.C.E., but Dimand subsequently revised his opinion, dating the ivories and seal impressions tentatively to the late second millennium B.C.E. in his article on the acquisition published in the *Bulletin of the Metropolitan Museum of Art* (1936, 223):

> Considering the archaic style of our ivories and the stylistic parallels, we may date them tentatively to the end of the second millennium, possibly to the thirteenth or twelfth century. The probability is that they are products of some unknown Aramaean art center in northern Syria, where Hittite and early Phoenician influences met. As further material from the same site becomes available, we hope that a more definite dating can be established.

This first group of objects was laid out and photographed before any repairs were undertaken (Fig. 16.1). The second group, "11 carved ivories," arrived at the museum before the end of 1936. In his publication of the acquisition, Dimand stated that the ivories "may be regarded as a product of a North Syrian art center in which Hittite and early Phoenician influences met," deriving "from the same unidentified site in northern Syria" as those in the earlier Pratt gifts (Dimand 1937, 88, 90). In 1937, a final gift was given by Mrs. Pratt, comprising 32 carved ivories from furniture and four clay sealings (Metropolitan Museum of Art Gift 1937). These were dated by Dimand to the 13th or 12th century B.C.E., as with the other Pratt ivories.

Mr. and Mrs. George D. Pratt

This large selection of ancient ivory attachments, along with the ceramics and seal impressions that came in with them, were not the only items that the Metropolitan Museum received from the Pratts. Other gifts and loans included Luristan bronzes, late medieval tapestries, Central Asian plaques, stained-glass windows, early Netherlandish and Russian paintings, and Fatimid and Precolumbian textiles. Pratt and his wife were avid collectors, purchasing and then donating art and artifacts to other museums as well, including the American Museum of Natural History, the Philadelphia Museum of Art, and the Smithsonian Institution.

George Dupont Pratt was a wealthy businessman, big-game hunter, world traveler, and amateur photographer, who served on the board of trustees of the Metropolitan Museum of Art (Lundberg 1937, 254), the American Museum of Natural History, and Amherst College (his alma mater). He was conservation commissioner for New York state, president of the American Forestry Association, and treasurer and vice president of the Pratt Institute, which was founded and endowed by his father, Charles M. Pratt (*New York Times*, January 21, 1935). Charles Pratt was an oilman, whose companies became part of John D. Rockefeller's Standard Oil in 1874 (Lundberg 1937, 16–17, 23). Mr. and Mrs. George D. Pratt occupied one of the Pratt family mansions, Killenworth (Glen Cove), a vast Long Island estate

that later became the retreat of the Russian delegation to the United Nations. Although the Pratt ivories have assumed great importance for the history of ancient furniture (Simpson 1995, 1655), clearly, these were only one group of objects among many that the Pratts obtained and passed on during the course of a privileged life, doubtless unaware of the ramifications of the ivories' purchase on the art market and their lack of archaeological provenience.

The Pratt Ivories

The Pratt collection, now in the Department of Ancient Near Eastern Art at the Metropolitan Museum, includes many pieces that must have come from luxury furniture, but it is not now possible to understand exactly what the furniture looked like. Several of these pieces were structural supports, including four seated sphinxes (**P1**–**P4**; Figs. 16.6–16.17) and three lion legs (**P5**–**P7**; Figs. 16.18–16.22), as well as a small leg fragment with a calf's head at the top (Harper 1969, fig. 10, upper left). Sections of ivory bands, which apparently decorated a leg, and a strut with diagonal ridges were also probably from furniture. Additional furniture attachments include 15 or more carved plaques, some of them fragmentary, most of which are related in terms of their style and joinery: a falcon and one of his two wings (**P8**, **P9**; Figs. 16.25–16.29, 16.34), two gazelles caught in the clutches of a bird (**P10**, **P11**; Figs. 16.25, 16.33, 16.34), as well as two sphinxes, three lion-headed figures in skirts, and four lions eating their prey (Fig. 16.37). Two smaller rampant lions were also acquired (Harper 1969, fig. 3:upper left and lower right). These pieces, as a group, constitute one of the earliest and most important collections of ivory furniture fittings known from the ancient Near East.

Several other ivories from the Pratt donation may have come from smaller decorative objects, such as boxes or toilet articles. These include fragments of incised plaques, carved with rosettes, chevrons, guilloche designs, and animal scenes. Three small sculptures—a kneeling man (Aruz 2008, 89, no. 51), a miniature bull-man (Aruz 2008, 90, no. 53), and a man's head (Harper 1969, fig. 10, upper right)—have cuttings for attachment. A curved fragment with a monkey sitting upright at the top was perhaps part of a small stand (Harper 1969, fig. 10, lower left). Finally, the collection included several pieces not from furniture: a miniature monkey (Harper 1969, fig. 10, lower right), a disk-shaped finial, and fragments from two ivory bowls or plates decorated with copper or bronze studs (see Addenda).

The Pratt ivories caused something of a sensation when they were acquired—and they are still considered one of the highlights of the museum's collection. Forms are boldly stylized, with details delicately rendered, resulting in imaginative, energetic figures that are both forceful and highly refined. Initially, their style seemed so unusual that the pieces could not be fit into any known category, and neither their place of manufacture nor their date could be ascertained. The small, intriguing pieces, with their personality and undeniable presence, drew a wide and admiring audience. One noteworthy characteristic of the ivories is the varying color, size, and consistency of pieces that clearly form groups of objects that once looked alike. Examples include the four seated sphinxes (**P1**–**P4**), which range in color from gray to pink to red, and the lion's legs, of which three are preserved: a gray leg (**P6**), a pink leg (**P5**), and a fragmentary red leg (**P7**) that is shrunken, "mineralized," and quite dense. The ivory plaques show the same variation, which is particularly striking in the case of the falcon and two gazelles (**P8**–**P11**; Fig. 16.25). The gazelle at the falcon's left (the viewer's right) is pinkish and the appropriate size with respect to the falcon. The gazelle at the falcon's right (viewer's left), however, is orange, shrunken, dense and mineralized, and warped with bubbles on its surface. Otherwise, the two animals are mirror images of each other and exhibit precisely the same pinholes for attachment to their backing (now lost). Clearly, the circumstances of their original archaeological context must account for these perplexing discrepancies.

Although the ivories were initially taken to be Syrian or Phoenician, made in the early first millennium B.C.E., certain similarities to Syrian and Hittite art of the late second millennium B.C.E. led to the revised opinion that they were products of this earlier age—"of some unknown Aramaean art center in northern Syria, where Hittite and early Phoenician influences met" (Dimand 1936, 223). Thirty-three pieces were published in C. Decamps de Mertzenfeld's corpus of Phoenician ivories, pictured in photographs or sketches (de Mertzenfeld 1954, nos. 1081–1111). But it was not until excavations were under way at the site of Acemhöyük in central Anatolia that a context for the Pratt ivories was finally discovered.

Acemhöyük

Excavations at Acemhöyük, begun in 1962 under the direction of Nimet Özgüç, uncovered the remains of two monumental buildings of the early second millennium B.C.E. (Fig. 16.4; N. Özgüç 1966). The building at the southeastern part of the mound was called the Sarıkaya ("yellow rock/palisade") palace, named for the remains of the massive mudbrick walls exposed by excavation (Fig. 16.2). The Sarıkaya palace was destroyed in a huge conflagration that burned not only its contents but also the timbers that reinforced its mudbrick walls. The walls now stand to an impressive height, colored beige, pink, and yellow, varying in hue and consistency according to the circumstances that prevailed during the fire in particular areas of the building (Fig. 16.3).

The Sarıkaya palace must have had fifty rooms, and in almost every room, bullae—ancient clay sealings—were found baked by the fire that destroyed the building. The clay bullae, once used to seal bales, packages, and containers, bore the impressions of cylinder and stamp seals used to certify the contents. Nimet Özgüç has shown that these bullae were stamped with seals from four stylistic groups: Old Babylonian, Old Assyrian, Old Syrian, and Old Anatolian/Old Hittite. A number of these bullae were impressed with the seals of historical figures, including the Assyrian ruler Shamshi-Adad I (ca. 1808–1776 B.C.E.); Nagiha[num], the daughter of Iakhdunlim, King of Mari; and Aplakhanda, king of Carchemish and a contemporary of Shamshi-Adad's son Iasmakh-Adad. These important documents have allowed the palace to be dated to the late 19th and 18th centuries B.C.E. (N. Özgüç 1968, 319–320; 1980, 61–64; Tunca 1989; 1993).

The bullae excavated at Acemhöyük in the Sarıkaya palace and the nearby Hatipler palace indicate that the residents were involved in commerce with traders from the city of Assur in northern Mesopotamia. Thus, Acemhöyük may have supported an Assyrian trading colony, or *karum*, as did Kültepe-Kaniš, its neighbor to the northeast (T. Özgüç 2003, 128–130). The two cities flourished at the same time, and the late "Waršama" palace at Kültepe and the palaces at Acemhöyük were evidently built within 60 years of one another (Kuniholm and Newton 1989, 279; T. Özgüç 1999, 64–65, 134–136). Kültepe has produced around 23,000 texts, yielding unimaginably detailed information about the lives of the entrepreneurs of the city, who oversaw the import of tin and textiles from Assur and the export of gold and silver from Anatolia in return (Veenhof 1972; Larsen 1976; 2008, 70–73; T. Özgüç 2003, 17–75).

No tablets have been excavated so far at Acemhöyük, but the huge palaces and numbers of seal impressions recovered testify to the city's importance as a commercial center (see Larsen 2008, 73 n. 4, on proposals for the ancient name of the city). With the comings and goings of merchants from many areas, a cosmopolitan atmosphere must have prevailed. The palaces themselves were richly appointed, judging from the finds that have survived. Unfortunately, little of the inherently valuable contents of the buildings has been found in their excavation. This is certainly due in part to the burning of the city, but the site was also looted—of how much it is unclear. Thus, a small group of precious objects recovered from a room in the western section of the palace (NA–OA/46) has assumed particular significance (Fig. 16.5, room 31).

In 1965, buried under the fallen, slaglike brick of the walls of this room, a number of sumptuous objects were found, including vases of rock crystal

and obsidian, gold ornaments, pieces of beaded fabric, and several fine ivories. According to N. Özgüç, "The room, which evidently was large, had been partly excavated and ruined by villagers some time before our excavations started" (N. Özgüç 1966, 15–16, 42). The excavator realized that the ivories recovered from Acemhöyük closely resembled some of the Pratt ivories in New York. Among numerous comparable ivories found at the site were fragments decorated with rosettes and guilloche motifs (see Addenda), as well as a reddish wing of a bird that was the same shape and had the same markings as the falcon's wing in the Metropolitan Museum. N. Özgüç thought that the New York falcon had its two original wings preserved, one of which had not been published but that could be seen on display (N. Özgüç 1966, 18 n. 37, 45 n. 37). Also excavated was a small lion close in style to the lions and sphinxes in New York (N. Özgüç 1966, 15–18, 42–45). As added confirmation that the two groups of finds were linked, the clay sealings acquired by the Metropolitan Museum in the Pratt gifts found exact counterparts among the bullae from Acemhöyük (N. Özgüç 1966, 18–19, 45; 1983).

Meanwhile, a photograph had surfaced, obtained by Machteld Mellink from an antiquities dealer in Antakya who had seen some of the ivories before they were acquired by the Metropolitan Museum. The photo showed two of the Pratt sphinxes, which had reportedly come from Aksaray, a town near Acemhöyük where objects plundered from the site were sometimes taken for sale (Mellink 1964, 156 n. 7; N. Özgüç 1966, 19 n. 40, 46 n. 40). Based on all this evidence, N. Özgüç concluded, "What has been proven is that the collection of ivories and bullae in the Metropolitan Museum came from Acemhöyük and was indeed dug up in the room in squares NA–OA/46 [room 31] in which we found ivories in 1965" (N. Özgüç 1966, 19, 46). This idea was embraced by Prudence Harper, then associate curator in the Department of Ancient Near Eastern Art at the Metropolitan Museum, who published many of the finest of the ivories in an article in *The Connoisseur* in 1969. According to Harper (1969, 156, 158):

> As the excavator immediately realised, she had discovered the source of the ivories and sealings given by the Pratts to The Metropolitan Museum of Art. The heat of the fire which had destroyed this building is reflected in the vitrification and warping of the Pratt ivories. They are discoloured as well by the heat and the condition of the soil, and range in colour from white to grey and bright orange. This is true of the ivories and of the sealings discovered by Nimet Özgüç, some of which are identical to those given the Museum by the Pratts. The room in which the ivories were discovered at Acemhöyük showed clear signs of earlier illicit excavations. It must therefore have been from these that the Pratt collection came many years ago.

According to this thesis, the Pratt ivories were called "Acemhöyük Ivories" in the 1987 museum guide to the collections of the departments of Ancient Near Eastern Art and Egyptian Art (Metropolitan Museum of Art 1987, 119). This stance would change, however, beginning around that time, as the Turkish government had launched an investigation into the so-called Lydian hoard, a spectacular group of metal vessels, jewelry, and other precious objects acquired by the Metropolitan Museum. Looted from tombs in western Anatolia, the objects were exported illegally from Turkey and acquired in several lots by the museum beginning in 1966; a number of pieces were exhibited in the installation "A Greek and Roman Treasury" in 1984 (von Bothmer 1984, 24–36, 38–45; Özgen and Öztürk 1996, 240–241). The controversy was publicized in 1986 in a series of newspaper articles written by Turkish journalist Özgen Acar, and then in a 1987 exposé by Melik Kaylan, published in *Connoisseur*, which laid out the details of the looting operation (complete with the testimony of one of the original tomb robbers), and the basis for the Turkish case against the museum (Kaylan 1987).

The objects were returned to the Turkish Republic in 1993, after a protracted legal battle in which the sites from which the objects had been looted were identified (Özgen and Öztürk 1996, 12–13). As a result of the controversy, the Metropolitan Museum's attitude became more guarded, with respect to Turkey in particular, and this affected the Pratt ivories (Harper 1989). Whereas Harper had openly declared Acemhöyük to be "the source of the ivories and sealings" in the museum's collection in 1969, she subsequently came to prefer the more general designation "Anatolia," which has persisted. In the catalog for the exhibition *Beyond Babylon* (Aruz, Benzel, and Evans, eds., 2008), the

source of the Pratt ivories is given as "Anatolia" in the catalog entries, although in an introductory essay they are said to be "attributed to Acemhöyük while featuring stylistic allusions to Egypt," without further elaboration regarding their archaeological provenience (Aruz 2008, 82).

Although Harper had been forthright in describing "the vitrification and warping of the Pratt ivories" along with their discoloration, as well as the similarity between the museum's ivories and those found at Acemhöyük in this regard, she misunderstood the nature of the relationship between the excavated ivory wing and the Pratt falcon. Harper had noted that the excavated wing was "almost identical" to the Pratt wing, but because it was smaller, she thought it "must have belonged to a bird slightly smaller in size than the Museum's example" (Harper 1969, 162). In fact, the excavated wing was shrunken and mineralized in keeping with other ivories in the Pratt collection. Harper thus postulated "two birds of different size" by an argument that has since been extended to the Pratt gazelles. In the *Beyond Babylon* catalog, it is noted that one gazelle is smaller and red, with bubbles on the surface: "As only one of the plaques is in proper proportion to this falcon, they probably belonged to two different falcon compositions" (Aruz 2008, 88). The shrunken, deformed, mineralized nature of the Pratt gazelle, the Acemhöyük wing, and other Pratt ivories is the result of their exposure to heat, which caused the combustion and loss of the organic proteins in the ivory (de Lapérouse 2008). As will be evident, the falcon and two gazelle plaques belonged to the same composition, along with the wing excavated at Acemhöyük and now in Ankara. Nimet Özgüç was correct in believing that the Pratt ivories had come from the site.

The original function of the Pratt ivories has not been readily apparent to those who have studied the pieces, due mainly to the circumstances of their removal. Had the ivories been excavated, they would likely have been found in proper relation to one another, and the exact reconstruction of the furniture from which they came might have been possible. Nonetheless, it is fortunate that the collection was not further dispersed and the extant pieces may at least be studied as a group. Although the Pratt ivories cannot be completely understood, it is clear that the four seated sphinxes and three lion legs belonged to a single chair or throne, decorated with gilded and inlaid ivory attachments. Associated with this chair are most of the large ivory plaques, including the falcon and gazelles, which were apparently affixed to the chair back as suggested by examples from Egypt. The remaining large plaques were probably attached to the chair itself or to a matching footstool. This beautiful chair, even as partially reconstructed, may serve to evoke the luxurious appointments of the impressive Sarıkaya palace. And the fine workmanship of the pieces can help us to appreciate the artistic temperament and highly refined taste of Middle Bronze Age Anatolian craftsmen and their patrons.

The Ivory Chair: Catalog of Associated Ivories

Cataloged below are most of the ivory structural supports and figural plaques in the Pratt collection (listed with the prefix P). The pieces listed are so similar in terms of style and method of manufacture that they may reasonably be said to have belonged to a single piece of furniture or ensemble. Included in the catalog is the ivory wing excavated at Acemhöyük in 1965 (listed with the prefix AH). Accession numbers assigned to the Pratt ivories by the Metropolitan Museum are given in the catalog entries, with the first part of each number indicating the last two digits of the year in which a piece was acquired by the museum (1932, 1936, or 1937). In three examples, a plaque reconstructed from disparate fragments has more than one accession number; in one case fragments originally grouped together under one number have been recognized as two different works. One of the groups of objects donated by the Pratts in 1936 (ivories, sealings, and pottery fragments) was photographed as originally constituted and is illustrated here in Figure 16.1.

The ivories are cataloged by type, followed by a discussion of the various pieces in each group, indicating their position and function with respect to the ivory chair. Notwithstanding the variation in size of pieces within each group, the joinery shows that these groups are coherent and that the

pieces included within them were once comparable in terms of their appearance and dimensions. The chair can be reconstructed in drawings, with the legs certain (**P1–P7**) and the falcon and gazelle group placed in its probable original position (**P8–P11, AH1**). The remaining plaques associated with the chair (**P12–P20**) have not been included in the reconstruction drawings, as their exact locations could not be determined.

Many measurements are necessarily approximate, due to warped or sloping surfaces: the ivories are without exception damaged and in many cases fragmentary, their condition caused by the heat to which they were subjected in the burning of the palace and by their burial in the soil (de Lapérouse 2008). Measurements should be considered to be the greatest dimensions unless otherwise stated. "Left" will mean proper left, i.e., left from the vantage point of the object in question. For instance, the "left front" leg of the chair is the leg at the left front from the vantage point of the chair (or a person sitting in it); this is the leg seen at the right by a viewer looking at the chair from the front. Likewise, the gazelle "to falcon's left" is the gazelle clutched in the claws of the falcon's left foot; this gazelle appears at the right when the group is viewed from the front. It is likely that many if not all of the ivory attachments cataloged below were made from hippopotamus tusks. The sphinxes (**P1–P4**) were apparently made from lower incisors, and the lion legs (**P5, P6**) from lower canines (Caubet 1991; Bourgeois 1992, 63–64; contra Aruz 2008, 86). Some of the plaques show evidence of the pulp cavity on the back, suggesting that they, too, were made from lower canines (**P12, P16**). No information, however, is available for the remaining ivories, as a thorough investigation of the material has not been undertaken.

Structural Supports: Four Sphinxes

P1. Sphinx, pink; MMA 32.161.46; Figs. 16.6–16.8 (left), 16.9, 16.10, 16.14, 16.17, 16.24, 16.36. H. 13.1; w. 4.05; L. front to back 4.6; w. at base 3.4; L. at base front to back 4.4; w. mortise 1.3; L. mortise front to back, 1.4 cm. De Mertzenfeld 1954, no. 1088a; Harper 1969, fig. 8 (lower right); Barnett 1982, pl. 26:e; Aruz, Benzel, and Evans, eds., 2008, 85, figs. 29 (top), 30. Seated sphinx, upright with straight front legs, perched on a small base. The surface is light-to-medium pink, with a whitish core; some black spots occur on the left side of body. The piece has several vertical cracks, with a large chip out of the right side of the head; the pink color extends into the sides of some of the cracks. There is no apparent restoration.

The sphinx wears a wig with locks that are pulled back behind the ears and then fall over its breast and shoulders in large curls—three on the sphinx's right and two on the left. A piece of hair curls upward above the brow, evidently in imitation of an Egyptian uraeus; the lock extends up slightly beyond the flat top surface of the head. There are traces of gilding on the hair and the iris of the left eye. The pupils of the eyes were once inlaid with small disks, which may have been faience (de Lapérouse 2008). One inlaid pupil, now dark brown, is preserved in the left eye of the pink sphinx (Fig. 16.17).

The eyes, with their gold irises and dark pupils, are not human but animal eyes. The sphinx would seem to be female, judging from its hairstyle (Harper 1969, 161), but a male lion's mane is suggested by a kind of covering on the upper body that ends in curves rising up over the front legs and haunches, following the lines of a real lion's mane (see Fig. 16.37:**P15, P17**).

At the front, the sphinx's "mane" ends in a point, dipping down slightly between the front legs. Seen from the side, each front leg shows a ridge running vertically down the back, representing the flexor muscles of the foreleg of a lion, ending at the bottom in the carpal pad. The front paws are large, with powerful-looking toes but no claws in view; neither are the dewclaws shown (contra Aruz and de Lapérouse 2008, 84). The back feet are set off from the rear end by short incisions rising from the base.

At the back, the mane curves over the rear haunches and dips down; the two curves would meet in a point, except for the tail that rises straight up the back. The top of the tail disappears at the back of the head, its sides curving up and outward. At the right, the line defining the tail curves into the third curl of the sphinx's wig, and at the left, the line curves out to suggest a third curl, although there are actually only two full curls on the left side.

There is a square mortise cut in the top of the sphinx's head into which a tenon had once fit. The mortise tapers slightly toward the interior, and traces of the drillings used to hollow out the mortise are evident inside (Fig. 16.9, above). The pink color on the surface of the body extends over the top and into the sides of the mortise. Two drilled holes on either side of the head indicate that a pin had been run through here to secure the tenon. No trace of the tenon or pin survives. The bottom of the sphinx is a flat, finished surface, colored pink (Fig. 16.9, bottom). Fine tool marks are present on the base but no evidence of joinery, suggesting that the piece had sat on the ground.

P2. Sphinx, dark red; MMA 32.161.47; Figs. 16.6–16.8 (second from left), 16.11, 16.14–16.16, 16.35, 16.36. H. 12.45; w. 3.7; L. front to back 4.4; w. at base 3.1; L. at base front to back 4.6 ; w. mortise 1.15; L. mortise front to back, 0.95 cm. De Mertzenfeld 1954, no. 1087b; Harper 1969, fig. 8 (lower left); Aruz, Benzel,

Figure 16.6. The four ivory sphinxes (**P1**–**P4**) donated by Mr. and Mrs. George D. Pratt to The Metropolitan Museum of Art in 1932 and 1936. Photo E. Simpson.

Figure 16.7. The ivory sphinxes (**P1**–**P4**), back view. Photo E. Simpson.

Figure 16.8. The Pratt ivory sphinxes **P1**–**P4**, side view (facing left), showing the variation in color and size that resulted from the effects of the conflagration on the different areas in which they fell. Photo E. Simpson.

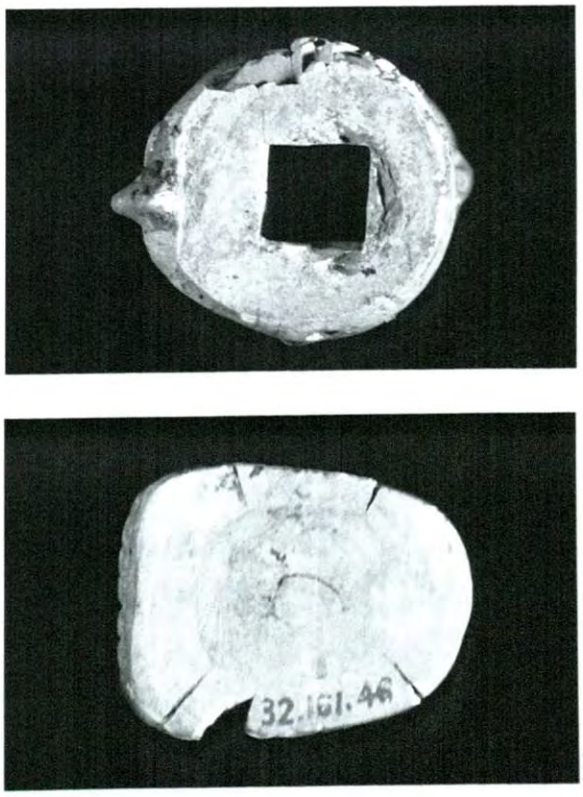

Figure 16.9. Top and bottom views of the pink sphinx **P1**, facing left, showing a mortise in the top and a flat base. Scale 1:1. Photos E. Simpson.

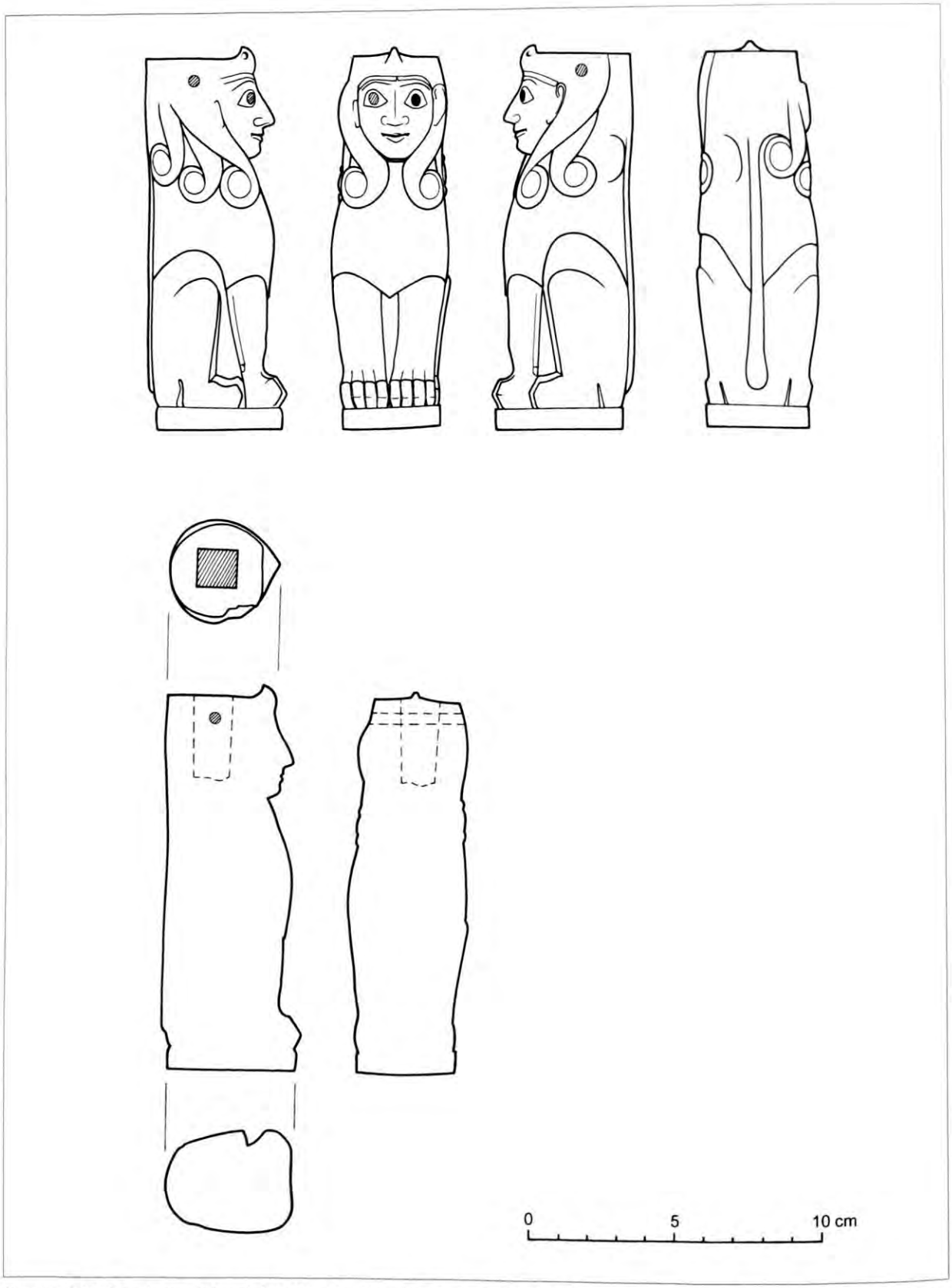

Figure 16.10. Drawings of the pink sphinx **P1**, showing the side, front, and rear views (top) and the joinery, top and base (bottom). Scale 1:2. Drawings E. Simpson.

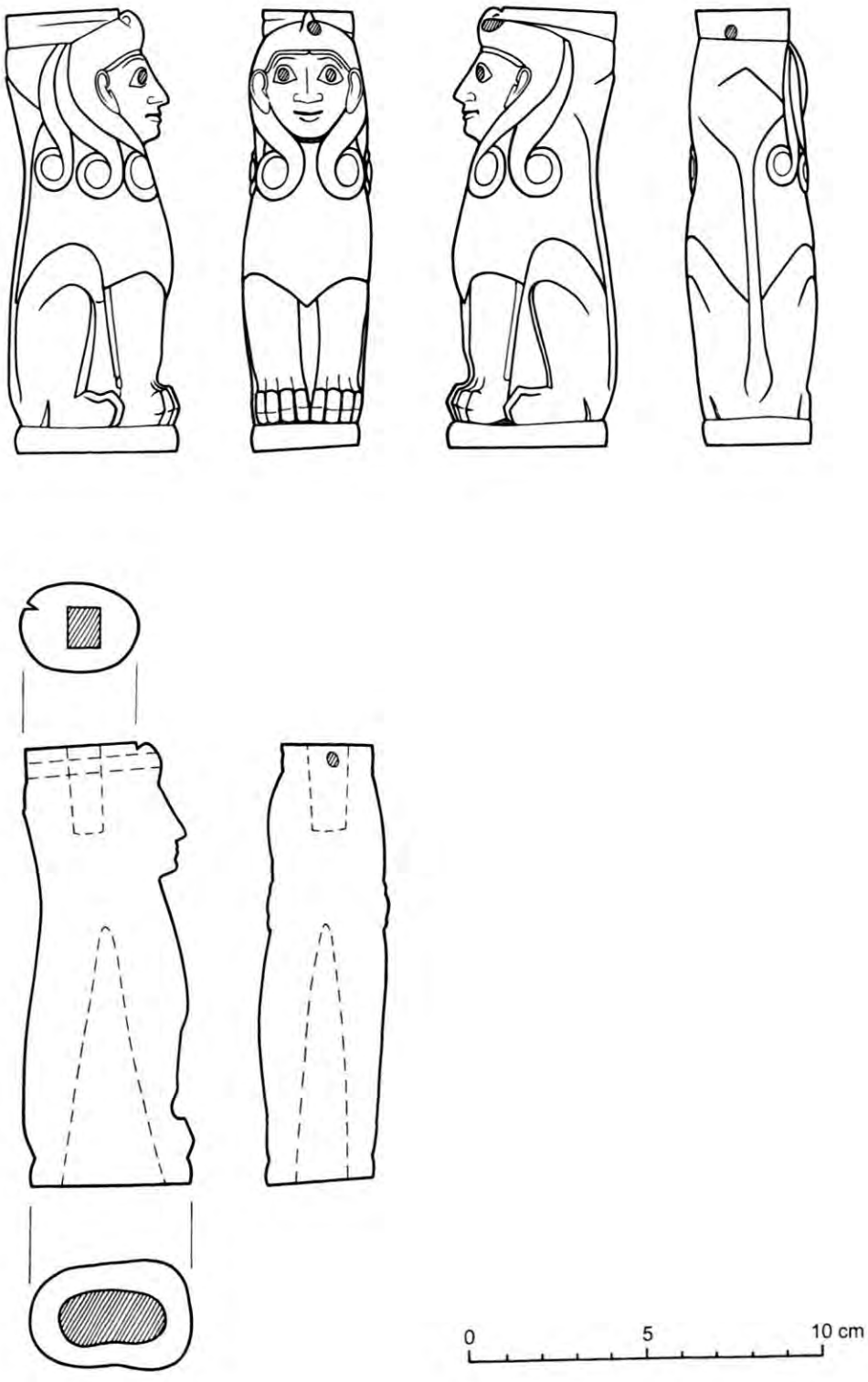

Figure 16.11. Drawings of the dark red sphinx **P2**. Scale 1:2. Drawings E. Simpson.

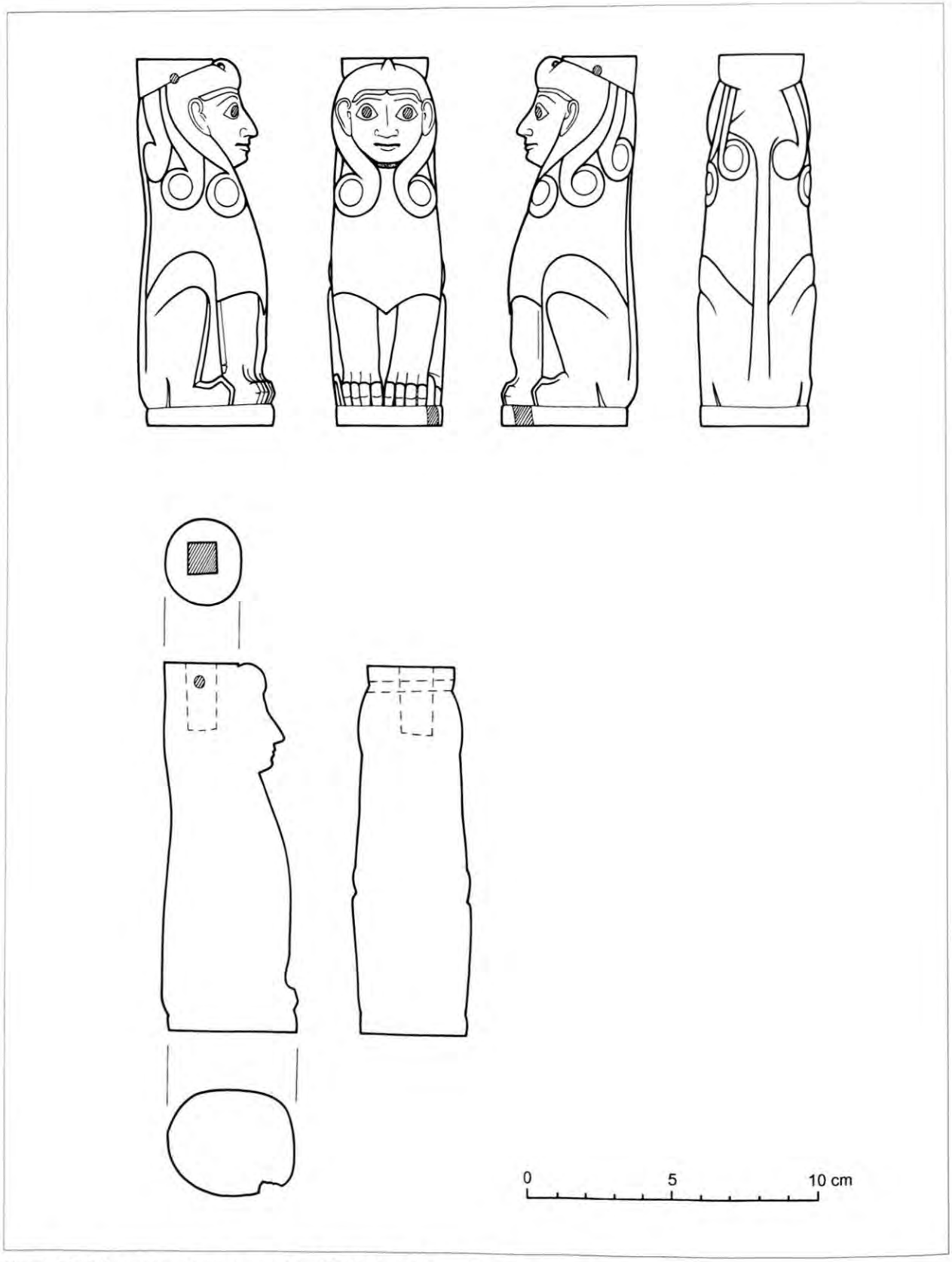

Figure 16.12. Drawings of the gray sphinx **P3**. Scale 1:2. Drawings E. Simpson.

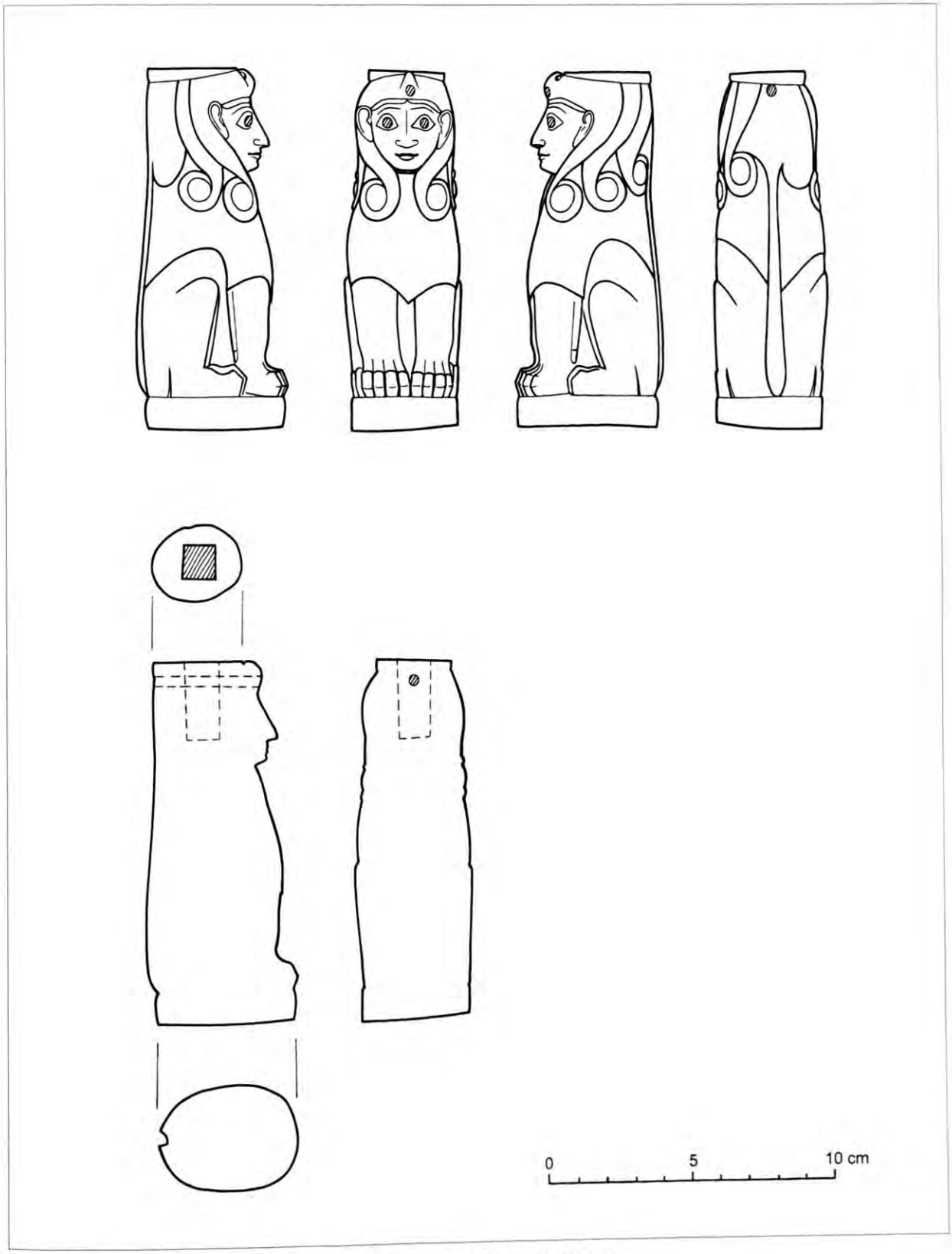

Figure 16.13. Drawings of the light red sphinx **P4**. Scale 1:2. Drawings E. Simpson.

Figure 16.14. Pratt ivory sphinxes in a "reconstructed positioning" based on the curls of the wigs. Aruz, Benzel, and Evans, eds., 2008, fig. 30. Photo J.-F. de Lapérouse, Sherman Fairchild Center for Objects Conservation, The Metropolitan Museum of Art; © The Metropolitan Museum of Art.

Figure 16.15. Dark red sphinx **P2**, exhibiting traces of gilding and damaged areas that do not show evidence of the red color. Aruz, Benzel, and Evans, eds., 2008, no. 46a. Photo © The Metropolitan Museum of Art.

Figure 16.16. Dark red sphinx **P2**, side view. Aruz, Benzel, and Evans, eds., 2008, no. 46a (detail). Photo © The Metropolitan Museum of Art.

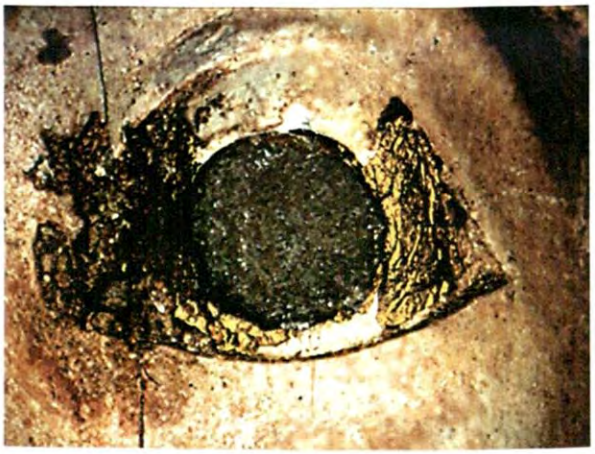

Figure 16.17. Pink sphinx **P1**, detail of the left eye, showing inlay and gilding. Aruz, Benzel, and Evans, eds., 2008, fig. 29. Photo J.-F. de Lapérouse, Sherman Fairchild Center for Objects Conservation, The Metropolitan Museum of Art; © The Metropolitan Museum of Art.

and Evans, eds., 2008, 83, 85, no. 46a, fig. 30. Seated sphinx, as above. The surface is dark red, with a white core; black staining occurs on the front of the body and areas of the hair where the gilding has been lost. The ivory feels heavy and dense. Vertical cracks run around the piece, with small horizontal fissures on the left side between the legs. There is a large chip out of the front of the mane and top of the left front leg, as well as some surface abrasion. The red color extends into the sides of the cracks. There is no apparent restoration.

The sphinx's wig is much like that of the pink sphinx above, with three curls on the right and two on the left. Unlike the wig of the pink sphinx, which rises all the way up to the top surface, the hair of the dark-red sphinx ends some distance below the top and is capped with a kind of molding. There is a uraeus curl at the front, but it does not extend up beyond the flat top surface of the piece. Traces of gilding remain on the wig and molding above it, as well as on the iris of the right eye. The inlay from both eyes is missing.

The mane and front and rear legs are stylized as with the pink sphinx. The tail runs straight up the back but ends in a flat, diamond-shaped tuft. The right-hand point of the diamond runs into the back curl of the wig on the right side, but the left point of the diamond fades into the left side of the head, unfinished.

The mortise in the top of the head is rectangular, tapering toward the interior, and drillings are again evident at its base. The top surface is red, with a light pink color extending down into the mortise. Holes in the sphinx's head show that a pin was again used to secure the tenon, although in this case the pin was run through from front to back instead of from side to side. In the base is a deep cavity, formed by the natural pulp cavity of the ivory tooth. The red color extends over the bottom of the piece and up into this opening. The cavity has no apparent structural purpose, and the bottom surface shows fine tool marks but no evidence of joinery, so this piece, too, seems to have sat on the ground.

P3. Sphinx, gray; MMA 36.70.8; Figs. 16.1 (center left), 16.6–16.8 (second from right), 16.12, 16.14. H. 12.75; w. 4.1; L. front to back 4.7; w. at base 3.65; L. at base front to back 4.5; w. mortise 1.15; L. mortise front to back, 1.05 cm. De Mertzenfeld 1954, no. 1088b; Barnett 1982, pl. 26:d; Simpson 1995, fig. 10; Aruz, Benzel, and Evans, eds., 2008, 85, fig. 30. Seated sphinx, as above. The surface is uniform gray, with a slight pinkish cast; beneath the gray surface is a whitish core. Vertical cracks run around the piece, and the edges of the top and bottom are chipped, with a larger chip in the left side of the base. The gray color extends into the sides of the vertical cracks and the side of the chip at the left of the base. There is no apparent restoration.

The gray sphinx's wig is like that of the dark-red sphinx, with a small cushionlike section at the top. The gray sphinx has three complete curls on the left and two on the right, with a third curl on the right rendered only in outline. This arrangement is the reverse of that on the pink and dark-red sphinxes, which have three full curls on the right and two on the left. There is no visible trace of gilding remaining on the wig, eyes, or body, and the inlay is missing from both eyes. The mane and body are like those of the other sphinxes. The tail rises straight up the back, its side borders curving up and out to the left and right over the tops of the back curls.

The mortise in the top of the head is almost square, tapering toward the interior. The top surface is the same color as the sphinx; this gray color does not extend down into the mortise, which is a whitish gray. There is evidence of drilling in the base of the mortise. The hole for the pin that secured the tenon runs through the sphinx's head from side to side. The bottom of the sphinx is flat and gray, with fine tool marks radiating out toward the perimeter of the base but no evidence of joinery.

P4. Sphinx, light red; MMA 36.70.1. Figs. 16.1 (lower right), 16.6–16.8 (right), 16.13, 16.14, 16.23, 16.35. H. 12.5; w. 4.15; L. front to back 5.1; w. at base 3.65; L. at base front to back 4.9; w. mortise 1.2; L. mortise front to back 1.15 cm. Dimand 1936, fig. 1; de Mertzenfeld 1954, no. 1087a; Harper 1969, fig. 8 (upper right); Aruz, Benzel, and Evans, eds., 2008, 85, fig. 30. Seated sphinx, as above. The surface is mottled red, and some sections appear to be almost without color, while others show patches of light-to-dark red. The core is whitish, as can be seen in places that are cracked and chipped. Black spotting occurs on the surface, most heavily on the left side; more uniform black staining occurs on the hair and irises of the eyes, suggesting that the black color may be related to the gilding of these areas. Some of the black material on the Pratt ivories has been analyzed and found to be rich in manganese. This type of staining is caused by microbial action on manganese in the soil, perhaps associated with the substance used to attach the gold leaf (de Lapérouse 2008). The ivory is heavy and dense. There is some vertical cracking as well as evidence of distortion in the pronounced curve of the piece. There is no restoration on the light-red sphinx.

The wig of this sphinx has three full curls on the left and two on the right, with a third curl on the right suggested in outline, as with the gray sphinx. The wig ends at the top in a molding as on the dark-red and gray sphinxes. Here, the simple disklike element has the appearance of a cushion serving to support whatever sat above it. There are traces of gilding on this top molding, as well as on the sphinx's hair. The black staining mentioned above, present on the irises of the eyes, seems to indicate that these were gilded, in keeping with the gilded eyes of the pink and dark-red sphinxes. Inlay from both eyes is missing. The mane and lower body are stylized in the manner of the pink and dark-red sphinxes, although the tail is slightly different. It rises straight up from the base on which the sphinx stands, disappearing at the top as with the tail of the pink sphinx.

The square mortise in the top of the sphinx's head tapers slightly toward the interior; the pin that had

once secured a tenon in the mortise was run through the head from front to back. Evidence of drillings can be seen in the base of the mortise. Patches of red occur on the top surface, with some chipped off, and there is no red on the sides of the mortise. The bottom of the sphinx is flat, with fine lines remaining from the cutting and finishing of the base. The bottom surface is red, with some of the color chipped away.

Comments

The four sphinxes **P1–P4** are Egyptianizing, their wiglike hair featuring long Hathor curls and a forelock in the position of the uraeus on an Egyptian royal headdress. The Hathor curls suggest that the creatures may be female, their manes notwithstanding, and there are instances of female sphinxes in Middle Kingdom Egypt (Romano 1989, no. 19; Scandone-Matthiae 1989, 126). However, the style of the Pratt sphinxes is Anatolian, calling to mind the contemporary ivory statuette of a nude goddess from Kültepe (*karum*, level Ib; T. Özgüç 2003, 235; Aruz 2008, 79–81). The most obvious counterparts are the monumental stone sphinxes from the Sphinx Gate (Yerkapı) at Boğazköy, now in Istanbul, and those from the gateway at Alacahöyük. These comparisons have been noted frequently (Harper 1969, 160–161; Canby 1989, 112; Aruz and de Lapérouse 2008, 83). The monumental sphinxes wear their hair in Hathor curls, but date several hundred years later, to the period of the Hittite empire (Akurgal 1962, pls. 66–69, 88). Earlier comparanda, of an abbreviated nature, are found among the seal impressions in the Pratt collection (N. Özgüç 1983, fig. 4) and those excavated at Acemhöyük (N. Özgüç 1980, figs. III:43, III:44; 1991, 299–301, figs. 12, 13) and Kültepe (N. Özgüç 1965, 30, 72, pl. XXIV:71).

The Pratt sphinxes were the bottom sections of four composite furniture legs that sat on the ground, supporting additional structural members, three of which are preserved (**P5–P7**). The basic disposition of the sphinxes can be determined according to the arrangement of the curls of their wigs: the pink sphinx **P1** and dark-red sphinx **P2** belonged at the object's right (viewer's left) and the gray sphinx **P3** and light-red sphinx **P4** belonged at the left (viewer's right). However, the arrangement of the curls alone will not suffice to determine the exact placement of the sphinxes, which were positioned according to this criterion for a photograph published in *Beyond Babylon* (Fig. 16.14; Aruz, Benzel, and Evans, eds., 2008, fig. 30). The pinholes running through the heads of the sphinxes are disposed differently for the two sphinxes on the right and also for those on the left. The pin on **P1** ran through the side of the sphinx's head, while on **P2** the pin ran from front to back. The same situation obtains for **P3** (side) and **P4** (front to back). This apparent anomaly is one important key to the reconstruction of the two-tiered legs, as will be explained below.

Structural Supports: Three Lion's Legs

P5. Lion's leg, pink; MMA 36.152.1; Figs. 16.18 (left), 16.20, 16.23, 16.35. H. 13.9; w. at top 3.5; L. at top front to back 7.6; w. paw 3.55; w. at base 3.05; L. at base front to back 3.65 cm. De Mertzenfeld 1954, no. 1104; Harper 1969, fig. 8 (upper left); Aruz, Benzel, and Evans, eds. 2008, 86, no. 47b. Lion's leg, standing on a three-tiered molded base. The surface is pink, ranging from darker pink at the top to lighter pink on the foot and base. The surface is somewhat abraded, with light spots, dark mottled staining (as on the pink and red sphinxes), and some chipping at the top and base. Vertical cracks occur in several areas, and the leg is broken above the paw; this break has been repaired and some of the cracks filled. No visible evidence of gilding remains on this leg.

The foot has four toes, with partially sheathed claws that appear triangular as seen from the front. On the left side of the foot (viewer's right), the claw of the left toe is rendered in detail, hooking around to terminate in a sharp point. The left side of the foot, with its well-defined claw, was visible at the chair's left, as this leg was positioned at the left front of the chair to which it belonged. This can be surmised from the position of two square mortises in the foot, one cut into the right side of the foot (viewer's left) and terminating in the interior, and the other cut into the back.

Pinholes were drilled into the foot to accommodate pins that secured tenons in the mortises. One pin ran from front to back, starting at the right toe and proceeding into the interior; this anchored the tenon that fit into the right side of the foot. A second pin ran from side to side at the rear of the foot, passing through a tenon that fit into the back. A third pin ran through the base below the foot from front to back, securing a tenon that fit into a square mortise cut in the bottom of the base. This bottom mortise shows three circular depressions from the drilling used to hollow out the interior. The dowels or stretchers that fit into the foot are not represented among the Pratt ivories and were most likely wood.

Above the paw, the lion's leg is rendered in a stylized manner but showing the salient features of a feline's rear leg. A flat band, representing the flexor muscles,

Figure 16.18. Pink lion leg **P5** (left) and gray lion leg **P6** (right) from the Pratt collection. Aruz, Benzel, and Evans, eds., 2008, nos. 47a and 47b. Photos © The Metropolitan Museum of Art.

Figure 16.19. Red lion's leg fragment **P7** from the Pratt collection, two views. Photos E. Simpson.

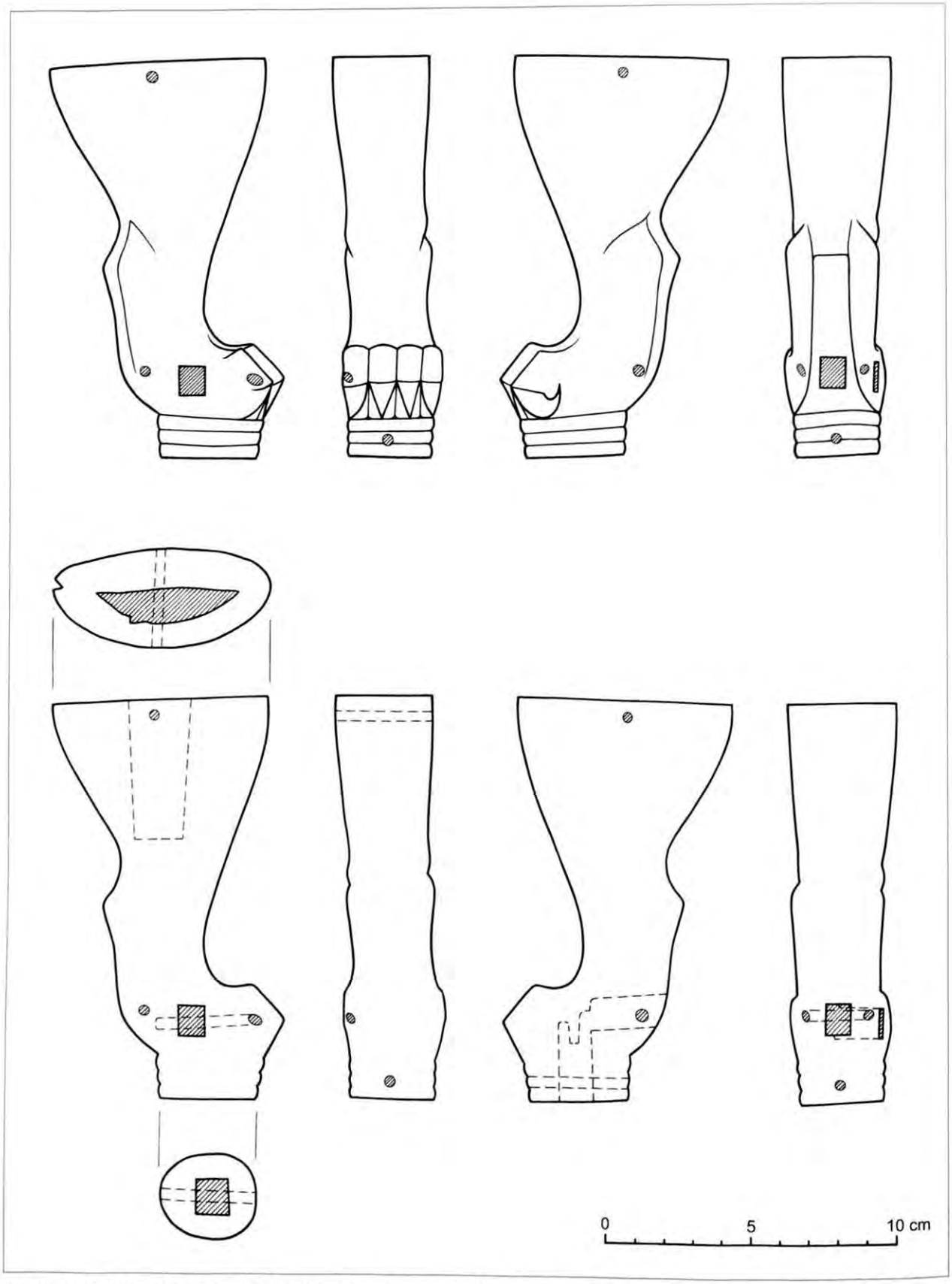

Figure 16.20. Drawings of the pink lion's leg **P5**, showing the front, rear, and side views (top) and the joinery, top and base (bottom). Scale 1:2. Drawings E. Simpson.

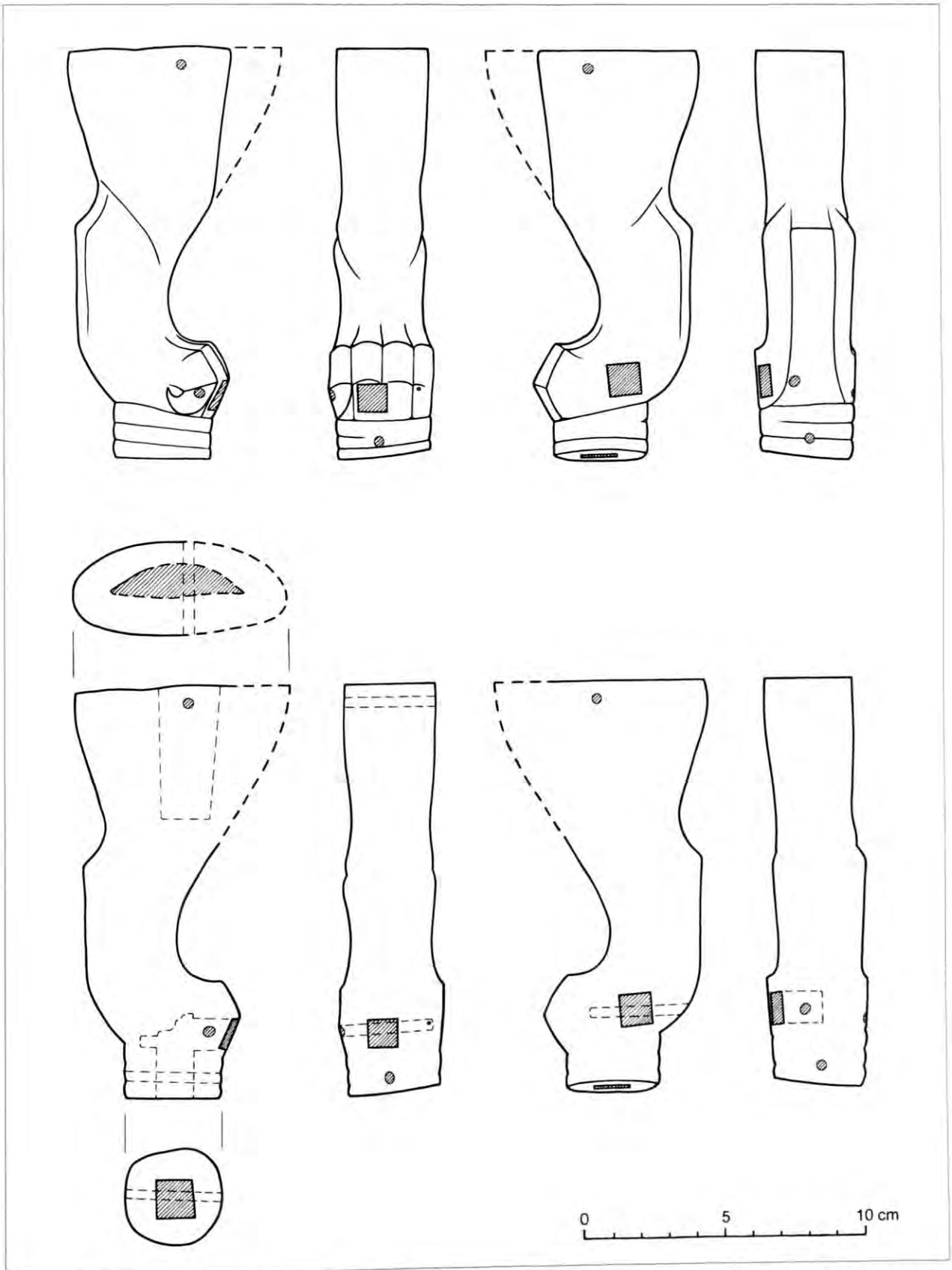

Figure 16.21. Drawings of the gray lion's leg **P6**. The solid outline represents the shape as first restored by the Metropolitan Museum. The dashed line shows the probable original extent. Scale 1:2. Drawings E. Simpson.

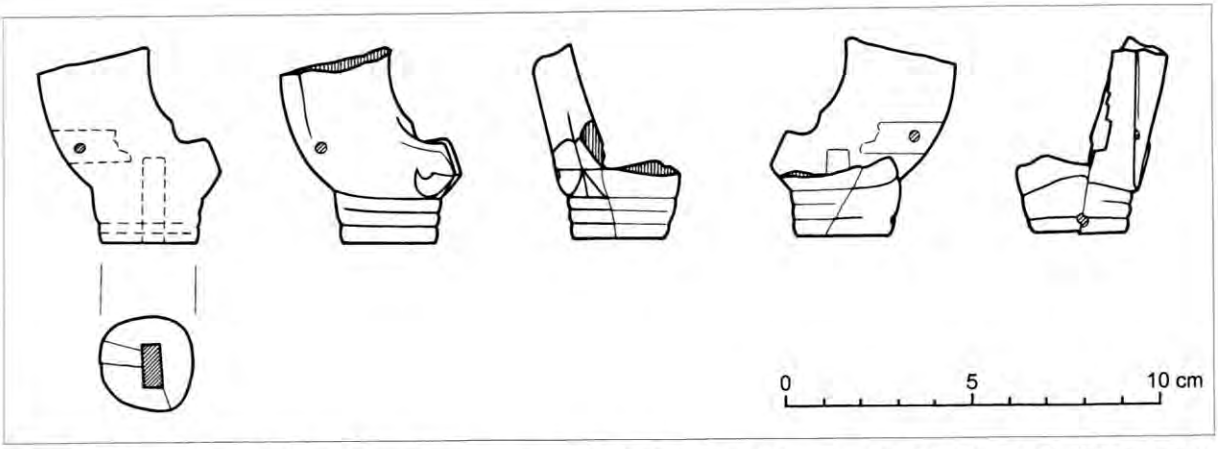

Figure 16.22. Drawings of the red lion's leg fragment **P7**, which is now deformed and shrunken. Scale 1:2. Drawings E. Simpson.

runs down the back of the hind foot, flaring out to meet the molded base. This differs from the ridge running down the back of the foreleg on the four sphinxes, which terminates in the carpal pad. The upper part of the pink leg swells toward the top, representing the lion's haunch. The pink leg **P5** may therefore be considered to represent the rear leg of a lion, which, however, has been situated at the front of the chair. This indicates that the carvers did not adhere to the Egyptian system of rendering the four lion's legs of a chair so as to be anatomically appropriate according to their position (Aruz 2008, 86). This choice may have been dictated by the shape of the tusks from which the legs were carved.

At the top of the pink leg, an opening indicates the pulp cavity of the tusk, which extends down into the leg's interior. The flat, triangular shape of the cavity shows that the leg was made from the lower canine of a hippopotamus. The opening was utilized for the joinery at the top of the leg, with the interior face cut back slightly at the right, serving to create a mortise that extended down into the leg to accommodate a tenon. A hole was drilled through the top of the leg from side to side to hold a pin that ran through the mortise and tenon, securing the joint.

Thus, the pink leg was situated at the left front of the chair (viewer's right) and was attached to the left rear and right front legs by dowels or stretchers at the level of the feet. The leg sat on top of another element, which was fastened to the leg with a tenon. Finally, a tenon fit into the upper part of the leg, attaching another piece, likely a board, that ran along the top surface. This same system prevailed for all three legs in the Pratt collection (**P5**–**P7**).

P6. Lion's leg, gray; MMA 36.70.7; Figs. 16.1 (lower right), 16.18 (right), 16.21, 16.24, 16.36. H. 14.6; w. at top 3.35; L. at top front to back 7.6 (est. restored measurement); w. paw 3.8; w. at base 3.4; L. at base front to back 3.5 cm. De Mertzenfeld 1954, no. 1105; Barnett 1982, pl. 26:h; Aruz, Benzel, and Evans, eds. 2008, 86, no. 47a. Lion's leg on a three-tiered base, as above. The leg is a uniform bluish-gray color, with some black and brown staining. Several fine, vertical cracks are evident, although the original surface of the upper part of the leg is largely obscured by modern restorations. The lower leg and foot are original, but the upper section was broken and in pieces when acquired by the museum (see Fig. 16.1, right of center), necessitating extensive repair. Traces of gilding are visible on the molded base.

As with the pink leg, the foot has four toes with triangular-shaped claws, as seen from the front. On the right side of the foot, the outer toe and its curving claw are rendered in detail. Square mortises are cut into the front and left side of the foot, similar to those on the pink leg but in the opposite faces. The placement of the curving claw and square mortises indicates that the gray leg was originally situated at the right rear of the chair (viewer's left). Pins ran into the foot from the right side (with the hole drilled through the curved claw) and from the back, to secure the mortise-and-tenon joinery. The drilling that pierced the outer curved claw terminated in a small exit hole in the inner toe; the hole drilled in from the back did not break through at the front of the foot. A square mortise was cut in the bottom of the base to accommodate a tenon, as with the pink lion's leg, and a pin was run through from front to back to secure the joint. The mortise in the base shows two circular drill marks in the interior.

The upper section of the gray leg has been restored twice by the Metropolitan Museum, with the more recent restoration shown in Figure 16.18 (right). Initially, the front of the leg was made to rise almost vertically, with little space left between the pinhole near the top and the front edge of the upper leg (de Mertzenfeld 1954, pl. CXXVIII:1105; Barnett 1982, pl. 26h). Details of this earlier reconstruction are shown in Figure 16.21. The pulp cavity is visible at the top of the leg, but this

was partially filled with plaster when the leg was first reconstructed, obscuring the upper mortise and eliminating the pinhole that must have existed at the left of the leg at the top. The new reconstruction (Fig. 16.18) has added a pinhole at the left, so that the hole runs through both sides of the leg, and has extended the front edge of the leg, making the gray leg look more like its pink counterpart. The front edge should be extended farther, however, so that the pinholes run through at the approximate center of the leg top. A more accurate profile has been reconstructed in Figure 16.21 by means of a dashed line, which suggests the probable shape of the front of the leg as it appeared originally. Reconstructed correctly, the gray lion's leg is similar to the pink leg in terms of form and also anatomical detail, indicating that it too represents a lion's rear leg. Thus, the two extant complete lion legs—the pink leg from the left front of the chair, and the gray leg from the back right—depict rear legs of a lion, with the likely implication that all four original chair legs included lion legs of the same type. A third lion's leg is preserved among the Pratt ivories (**P7**); this is damaged and fragmentary but exhibits joinery so similar to that of the other two legs that it can be identified conclusively as belonging to the group.

P7. Fragmentary lion's leg, red; MMA 36.70.5; Figs. 16.1 (below center), 16.19, 16.22, 16.35, 16.36. H. 5.3; w. at base 2.5 (as restored); L. at base front to back 2.6 cm (as restored). De Mertzenfeld 1954, no. 1106. Lion's leg on a three-tiered base, as above. Only the lower part of the leg is preserved, and this is reddish orange in color, shrunken, delaminated, and mineralized. No visible trace of gilding remains on this leg. The right part of the foot and most of the base survive, reconstructed from two fragments, although the front left portion of the base is restored with plaster and painted. The foot is like that of the gray leg, with a curving claw extending from the outer right toe, which is deformed in its present condition. The red leg originally had mortises cut in the left side (now broken away) and rear (partially preserved), indicating that this fragment had once belonged to the right front leg of the chair (viewer's left). The remains of the rear mortise show evidence of the drillings by which means it was hollowed out. There was also a mortise cut in the bottom of the base, but the shrinkage in combination with the restoration has made this appear small and rectangular. This mortise was once square and accommodated a tenon, as with the pink and gray legs, and pins ran through the foot and base to secure the mortise-and-tenon joinery. The top of the red leg is not preserved, but one may assume that the pulp cavity was visible and was cut back to receive a tenon, in the manner of the pink and gray lion's legs. A fourth leg clearly once existed but apparently did not survive—or at least it was not acquired by the Metropolitan Museum along with the other ivories in the Pratt collection.

Comments

Despite the marked variation in color, size, and condition of the three ivory lion legs, they clearly belonged to the same piece of furniture. Each had a mortise cut laterally into the foot, a second mortise running perpendicular from front to back, and a third cut into the base and extending up into the interior of the foot. In addition, the pink and gray legs had a mortise cut into the top of the leg, utilizing the pulp cavity. Many of these mortises show evidence of their manufacture, being first drilled out and then finished with a chisel. In all cases, the dowels or stretchers that had once joined the legs to each other and to other elements of the chair were secured in the mortises by pins. The diameter of the pinholes (0.3–0.4 cm) suggests that the same drill bit was used for both the mortises and pinholes. The pink and gray legs are comparable in size, while the red leg fragment is smaller. However, the joinery and also the details of the foot and base correspond exactly to those of the other lion legs, indicating that the red leg fragment was part of the original group. Based on the dimensions of the three legs and their joinery, the shrinkage that occurred in the red leg can be calculated, with a 75% reduction in size, or more. The diameters of the pinholes and drillings in the back mortise of the red leg show the same proportional shrinkage. Thus the three lion legs provide definitive proof that the fire and conditions of burial could and did cause massive shrinkage—reducing pieces to three-quarters of their original size—as well as distortion, delamination, and mineralization, and this can help to elucidate other pieces in the Pratt group.

Reconstruction of the Ivory Legs of the Chair

The mortises and pinholes in the four ivory sphinxes and three extant lion legs indicate that these elements were fit together to form furniture legs, likely the legs of an elaborate wood and ivory chair (Simpson 1995, 1655). Far from fragile supports "for a small piece of furniture that would not have held much weight" (Aruz and de Lapérouse 2008, 83), the

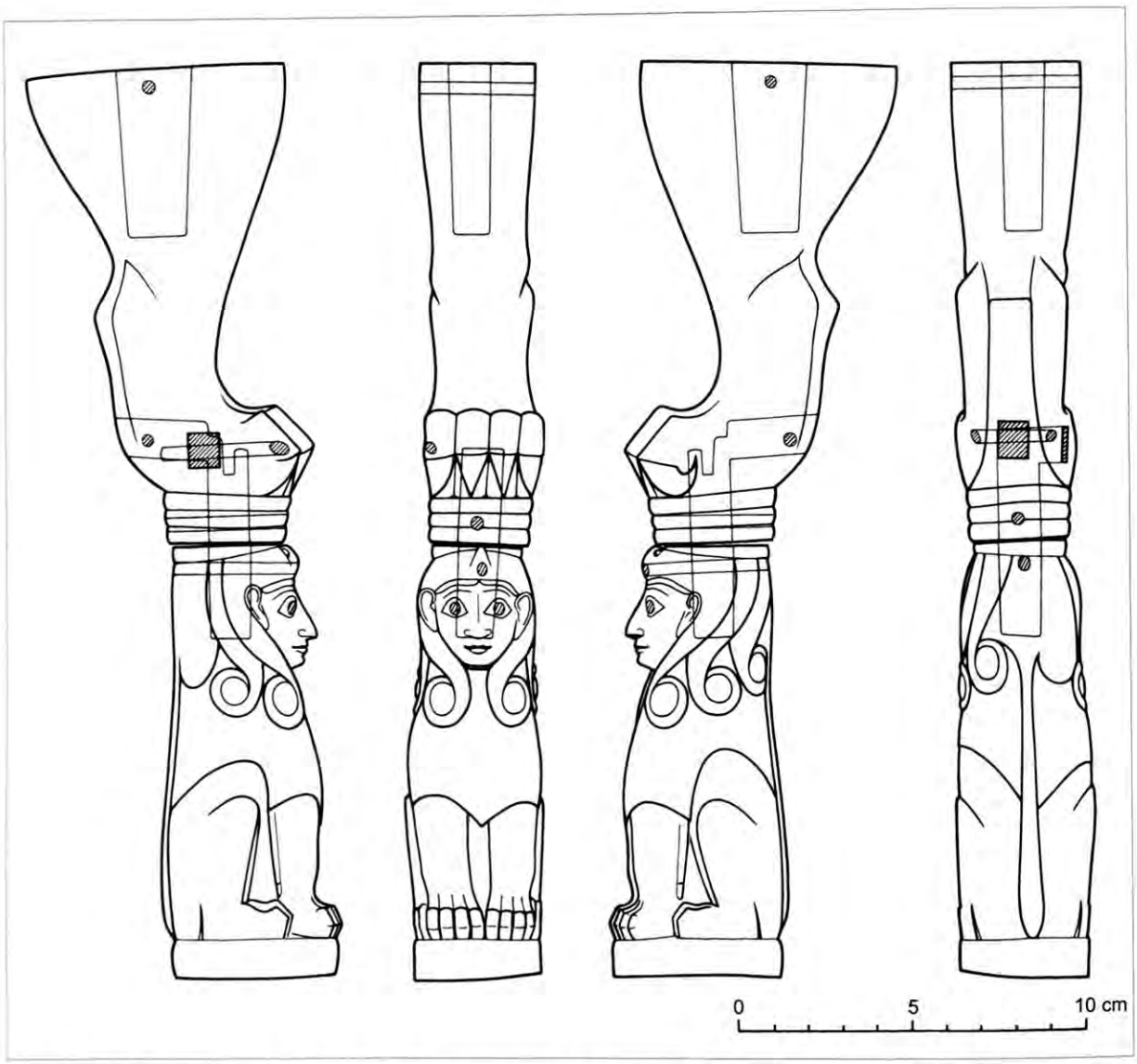

Figure 16.23. Reconstruction drawing of the left front leg of the ivory chair (at viewer's right), composed of the light red sphinx **P4** and pink lion's leg **P5**, with joinery indicated. The two elements, now somewhat shrunken and deformed, must once have aligned perfectly. Scale 1:2. Drawings E. Simpson.

composite ivory legs would have been sturdy and serviceable. The four sphinxes with their flat bases were the lower components of these legs, and the lion legs sat on top of the sphinxes, as can be shown by the way the mortises in the tops of the sphinxes and bottoms of the lion legs align (Figs. 16.23, 16.24). The sphinxes and lion legs were joined by means of separate, "free" tenons, probably made of wood, which fit into the adjoining mortises in the two components.

The left front leg of the chair (viewer's right) featured the light red sphinx **P4** and pink lion's leg **P5**, with both the leg and sphinx facing forward (Fig. 16.23). In this arrangement, the most detailed sides of these pieces—showing the sphinx's three complete curls and the pink leg's hooked claw—were visible at the outside (left) of the chair. The right side of this composite leg, facing the interior of the chair, was more cursorily rendered and included a mortise cut into the lion's foot. The right front leg of the chair was composed of the dark red sphinx **P2** and the red (fragmentary) lion's leg **P7**, oriented in the same manner. As with the left front

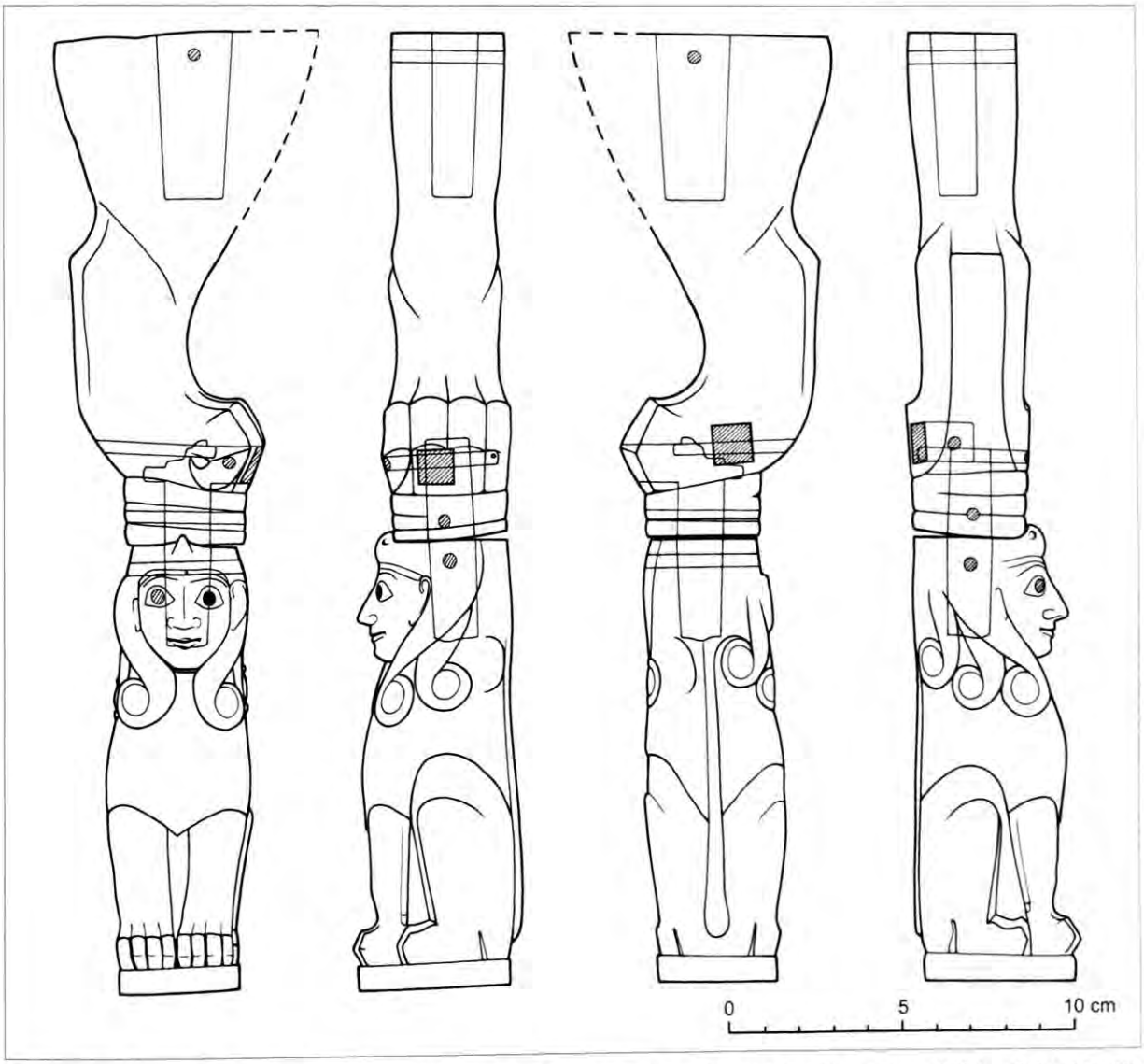

Figure 16.24. Reconstruction drawing of the right rear leg of the ivory chair (at viewer's left), composed of the pink sphinx **P1** and gray lion's leg **P6**, with joinery indicated. The gray leg is heavily restored; the two elements must once have aligned perfectly. Scale 1:2. Drawings E. Simpson.

leg, the more detailed carving appeared on the outside of the components. For each of these front legs, the free tenon was secured in the mortises by a pair of pins that ran, front to back, through the top of the sphinx's head and bottom of the lion's foot in the middle of the molded base.

The right back leg featured the pink sphinx **P1** and gray leg **P6**, but this leg was constructed differently. The pieces themselves do not fit together perfectly if both are facing forward, and the forelock of the sphinx cannot be accommodated below the base of the leg. However, if the sphinx is turned to the right, facing toward the outside, the two components align exactly (Fig. 16.24). The accuracy of this solution is confirmed by a slightly abraded area on the lower band of molding at the right side of the base of the gray leg (Fig. 16.18), into which the forelock of the sphinx fits neatly. With the sphinx turned to the side, the pinholes in the top of the sphinx and the molded base of the leg run from front to back, as with the joinery in the front legs of the chair. The most detailed side of the

lion's leg is visible at the right side of the chair, and the side of the sphinx with the most cursory carving faces the interior. The gray sphinx **P3** was situated at the back left of the chair, turned to the left to face toward the outside; the lion's leg that sat atop this sphinx was not acquired with the Pratt group.

The design of these legs is unprecedented among surviving examples of ancient furniture. As mentioned above, Egyptian chairs with lion legs typically reproduce the front and back legs of a lion with attention to anatomical accuracy, placed in their appropriate positions on the chair (Baker 1966, figs. 95, 97–99; Metropolitan Museum of Art 1987, 49; Roehrig 2002, 32). The composite aspect of the Pratt legs recalls designs on cylinder seal impressions of the Anatolian group from Kültepe, where deities, animals, and hybrid creatures are shown standing on top of one another or stacked within the field. While none of these sealings shows lions on top of sphinxes, numerous figures stand on the backs of animals, and some are seated on (or above) animals, either directly or on thrones (see, e.g., N. Özgüç 1965, pls. III–VII, XXIV–XXV). Impressions of stamp seals from Acemhöyük show comparable groupings: one with a goddess enthroned on the backs of two sphinxes, with feline creatures below (N. Özgüç 1991, 297:5), and another with a figure seated above two sheep or goats, with a falcon, lion, and sphinx in the field (N. Özgüç 1991, 311:36). As is well known, deities standing on sacred animals were common in the iconography of the later Hittite empire (Akurgal 1962, pls. 76, 77; Metropolitan Museum of Art 1987, 120–121; Collins 2002, 313–316; Gunter 2002, 86). A carved ivory box from Acemhöyük, decorated with studs of lapis lazuli, iron, and bronze on gold backing, depicts a dense profusion of figures in friezes, including a king or god seated on a throne with lion's legs, approached by a procession of offering bearers amid a throng of lions, sphinxes, monkeys, and other creatures. Aspects of the scene recall the art of neighboring Syria and point to what has been viewed as an international style incorporating Mesopotamian and Egyptian imagery (Mellink 1969, 285; N. Özgüç 1976, 555–559; Gunter 2002, 91–95; Aruz 2008, 82). The composite legs from the Pratt collection place the ivory chair within this artistic and cultural milieu, as do the figural plaques associated with the Pratt legs (**P8–P20**, **AH1**).

Figural Plaques: Falcon and Its Prey

P8. Falcon body; MMA 36.70.6; Figs. 16.1 (lower left), 16.25–16.27, 16.32, 16.34, 16.35. H. 11.1; w. at tail 5.9; th. 2.4; reconstructed w. falcon with wings ca. 24 cm. De Mertzenfeld 1954, no. 1097; Harper 1969, fig. 9; Barnett 1982, pl. 25a; Aruz, Benzel, and Evans, eds., 2008, 88, no. 49. Falcon body (plaque), modeled on the front and flat at the back. The surface is light gray with areas of pink. The front is somewhat abraded, particularly at the right of the breast and tail (viewer's left), revealing a whitish color beneath the surface; some dark spots occur on the breast. The body is reconstructed from three main fragments, with breaks at the neck and above the tail (see Fig. 16.1, lower left). These have been repaired with metal pins (two at the neck and one where the body joins the tail), plastered over, and painted.

The falcon has large eyes, surmounted by a bony shield (supraorbital process), and a prominent beak. The eyes were once inlaid but are now missing their pupils, although the left pupil seems to have been preserved at the time the piece was acquired by the museum (Fig. 16.1). Markings at the sides of the head are rendered in low relief, showing tablike elements extending out to the front and down toward the breast, with a circular pattern at each side of the neck. These approximate the head markings of the adult peregrine falcon but are stylized, as are the other features of the bird. There are traces of gilding on the irises of the eyes, with some gold extending onto the right side of the upper mandible. The gilding perhaps originally covered the top of the beak, representing the cere at the basal part of the upper mandible, which is colored bright yellow on a peregrine falcon. The stylized tail has six divisions, indicating tail feathers. The thighs or leggings of the bird are not preserved, and would have extended out to the right and left, in the area of the break where the body meets the tail. The bird's feet, which had issued from the feathered thighs, can be seen on the backs of the two gazelles (**P10**, **P11**).

The top of the falcon's head slants toward the back, with a single pinhole drilled in the center of the crown. Two pinholes run up into the base of the tail, which is otherwise flat on the bottom. These pinholes are the means by which the falcon was attached to a backing. To the left and right sides of the breast, the body extends slightly, ending in flat, finished areas into which rectangular mortises are cut. These mortises once received tenons that attached the falcon's wings to its body (Fig. 16.26). The mortises were drilled out and then finished, in the manner of those of the sphinxes and lion legs. The diameter of the pinholes in the head and tail is 0.45–0.5 cm; based on the X-ray taken by the Department of Objects Conservation at the Metropolitan Museum, it seems likely that the same drill bit was used for the pinholes and mortises in the body of the falcon.

P9. Falcon's left wing (at viewer's right); MMA 37.143.6, 37.143.7; Figs. 16.25, 16.27–16.29, 16.34, 16.35. L. wing without tenon 11.2 (as restored); th. 1.05 cm

(as restored). Harper 1969, fig. 9; Barnett 1982, pl. 25a; Aruz, Benzel, and Evans, eds., 2008, 88, no. 49. Falcon's left wing (plaque), which is carved on the front face and flat at the back. The wing is extended showing 12 feathers below one covert. The primary and secondary feathers are not differentiated. This represents a stylized version of an actual falcon's wing, with its underwing coverts and primary and secondary feathers. The wing is reconstructed from several fragments, and the inner section at the top is not preserved. This was restored by the Metropolitan Museum, evidently in plaster, and painted. Also restored is a tenon, which was apparently made of metal, fashioned to fit snugly in the mortise at the left of the falcon's body. A pinhole ca. 0.35 cm in diameter extends down into the top of the wing near the wing tip. The wing **P9** is a uniform gray color, with no visible evidence of gilding.

Early photos of the falcon and its wings show the extent of the restoration, and also indicate that the right wing of the falcon has been restored in its entirety (Figs. 16.27, 16.28). Only the left wing (viewer's right) was acquired by the Metropolitan Museum. The X-ray taken of the left wing shows the pinhole at the top of the wing and the modern tenon and plaster repairs, as well as part of a drill hole visible as a dark patch to the right of the restored tenon (Fig. 16.28, right). This dark patch is actually part of a mortise, which has been obscured by the restoration. This mortise was first drilled out, as were those of the sphinxes, lion legs, and bird's body, and then finished with a chisel. Thus, the inner edge of the original wing did not feature a tenon but a mortise (contra Aruz 2008, 88). The wing was attached to the falcon body with a free tenon, in the same method used to join the sphinxes and lion legs (Figs. 16.23, 16.24). This type of joinery was used in antiquity for panel construction (Simpson 2010, 202). The ivory wing excavated at Acemhöyük (**AH1**) and now in the Museum of Anatolian Civilizations, Ankara, also had a mortise cut in its inner edge.

AH1. Falcon's right wing (viewer's left); Museum of Anatolian Civilizations 69.5.66; Figs. 16.30–16.32, 16.35. L. wing fragment 6.1; th. 0.9 cm. N. Özgüç 1966, 17, pl. XX:2. Falcon's right wing (plaque), which is carved on the front face and flat at the back. The wing is extended showing 13 feathers below one covert. As with the Pratt wing **P9**, the Acemhöyük wing represents a stylized version of an actual falcon's wing, and the underwing coverts and primary and secondary feathers are not differentiated. The wing is reddish orange with a mottled beige area at the center; the back of the plaque is a uniform, darker red. The wing tip is broken off, revealing a whitish interior. The piece is shrunken, deformed, and mineralized, affecting the size and shape of the wing, particularly at the top. The form of the covert has been distorted, due to shrinkage and delamination at the top of the wing and bubbling on the front surface. The wing **AH1** is brittle and extremely dense, as with the fragmentary red lion's leg **P7**.

A mortise is cut in the flat surface of the inner edge of the wing, made by the same process as the mortises of the Pratt pieces, with three clear drillings visible in the X-ray (Figs. 16.30, right). When the wing is seen from the side, the shape of the flat edge and position of the mortise conform perfectly to the flat surface and mortise at the right side of the falcon's body (Fig. 16.32, bottom), except that the wing edge and mortise are smaller. Since the edges of the wing **AH1** and falcon body **P8** show the exact same configuration, and the mortises align with no deviation, there is no doubt that the two pieces once joined. This was effected by means of a free tenon, as with the left wing **P9** of the falcon. The shrinkage can be computed, indicating that the wing **AH1** is now 75%–77% of its original size at its inner edge. When **AH1** is compared to the Pratt wing **P9**, the excavated wing can be seen to be approximately 66%–77% of its original size overall. This degree of shrinkage is comparable to that of the red lion's leg **P7**. As with the lion's leg, the red color on the wing extends across broken areas and into the mortise.

P10. Gazelle to falcon's left (viewer's right); MMA 36.152.4; Figs. 16.25, 16.33 (right), 16.34 (right), 16.35. Ht. 4.8; w. 7.3; th. 1; th. at base 0.8 cm. De Mertzenfeld 1954, no. 1094; Harper 1969, fig. 9; Barnett 1982, pl. 25b; Aruz, Benzel, and Evans, eds., 2008, 88, no. 49. Gazelle (plaque) caught in the claws of the left foot of a bird. Although the animal depicted is stylized, in keeping with the other Pratt ivories, and is missing the horns that once fit into the top of its head, details of its anatomy are sensitively rendered, allowing it to be identified as a gazelle. The plaque is modeled on the front with a flat back. The surface is a uniform whitish pink, with dark staining, particularly in areas cut back from the surface. The plaque is assembled from several fragments, with chipped areas on the head and back, and the top of the bird's foot is broken off. The gazelle is recumbent and faces to the viewer's right, with the head turned back toward the hindquarters and the offending claw.

The size of the animal, the style of carving, and the pinholes drilled in the head and base indicate that the pink gazelle **P10** was the prey of the Pratt falcon. It should be noted, however, that an actual falcon would not likely attack a gazelle; falcons primarily hunt birds, as well as the occasional small animal up to the size of a rabbit. The peregrine falcon uses its feet to strike and grab its prey, then biting and breaking the victim's neck. The peregrine has black claws and yellow toes, suggesting that the feet of the Pratt falcon were once gilded.

Evidence of joinery consists of one pinhole drilled down into the head and two extending up from the flat base. The hole in the top of the head, with a diameter of ca. 0.4 cm, was certainly the means of attachment for the horns. The holes in the base are smaller, since the bottom of the gazelle is shrunken, but these appear to have been the same size originally as the hole in the head. The two holes in the base once served to fasten the plaque to a larger object, as with the pinholes in the base of the

Figure 16.25. Falcon and two gazelles **P8**–**P11** from the Pratt collection. The falcon's left wing (at the viewer's right) is partially restored, and the right wing (at the viewer's left) is a total reconstruction. Aruz, Benzel, and Evans, eds., 2008, no. 49. Photos © The Metropolitan Museum of Art.

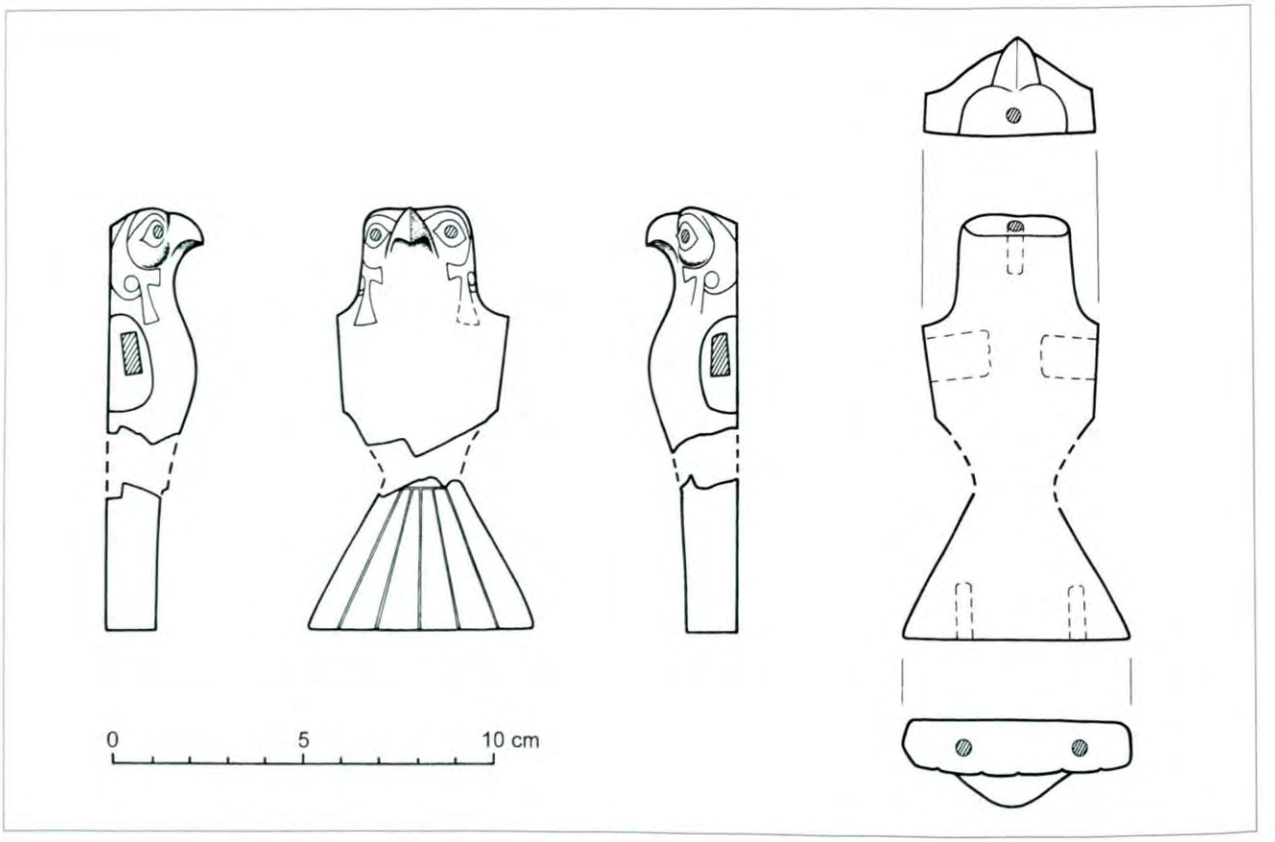

Figure 16.26. Drawings of the falcon body **P8**, showing the front and side views and the top view, back view with joinery, and base. Scale 1:2. Drawings E. Simpson.

Figure 16.27. Falcon body **P8** and left wing **P9**, showing the plaster restorations by the Metropolitan Museum. Photo © The Metropolitan Museum of Art.

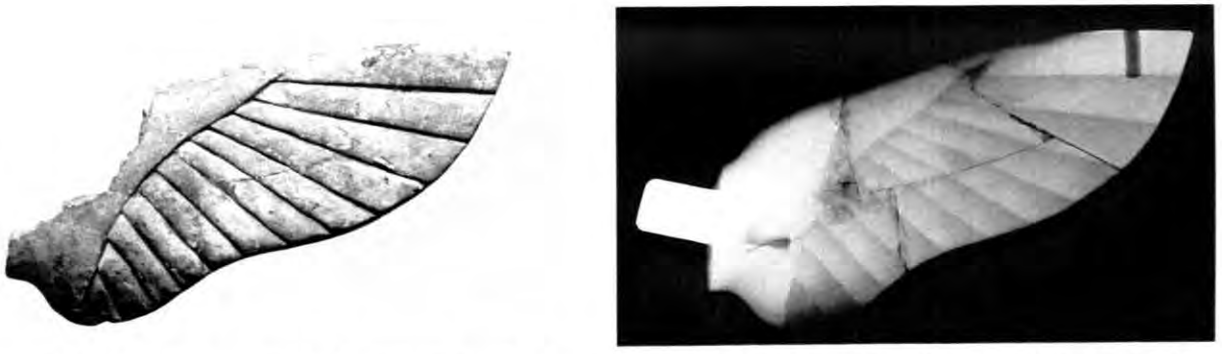

Figure 16.28. Falcon's left wing **P9** shown with the fragments assembled and joined but before complete restoration (left), and X-ray view of restored wing (right). X-ray photo The Sherman Fairchild Center for Objects Conservation, The Metropolitan Museum of Art. Photos © The Metropolitan Museum of Art.

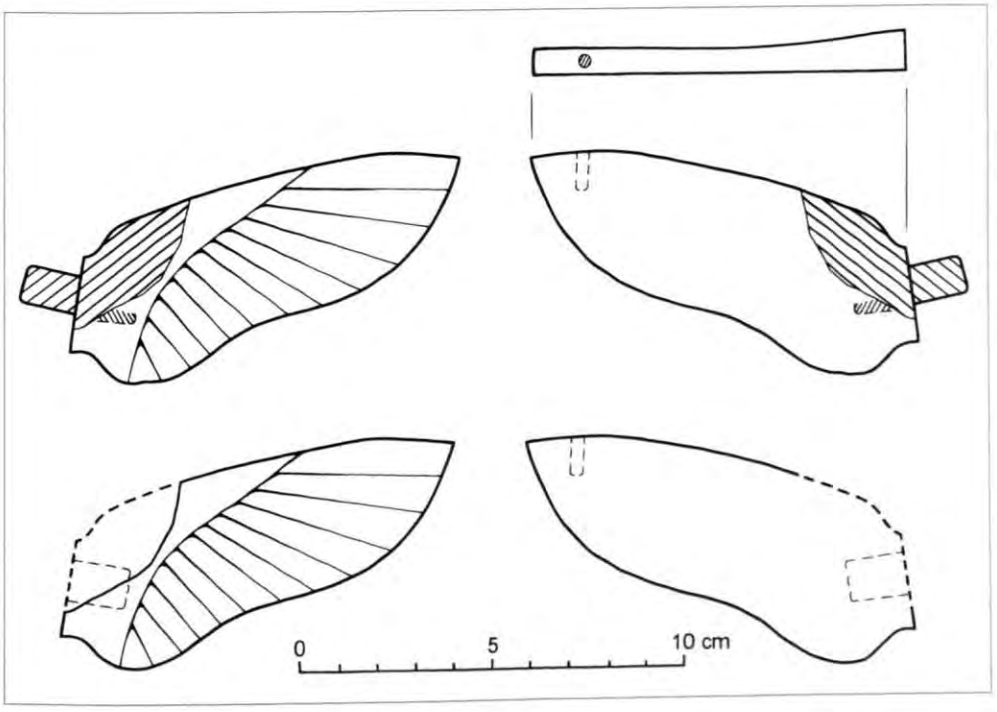

Figure 16.29. Drawings of the falcon's left wing **P9**, showing the front, top, and back views of the wing in present state (above) and without the restored tenon (below). The wide hatching in the upper drawings represents restoration by the museum; the drawings below show the mortise, reconstructed in dashed lines, as it would have appeared originally. Scale 1:2. Drawings E. Simpson.

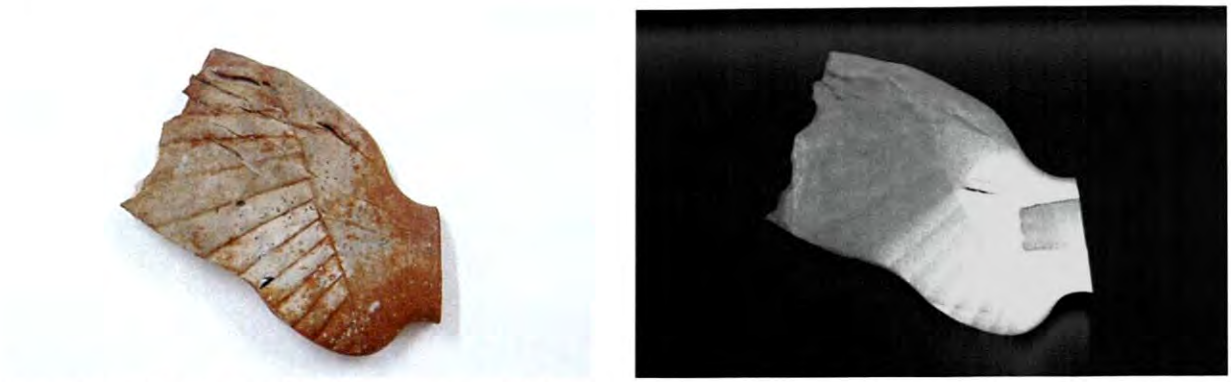

Figure 16.30. Wing fragment **AH1** in its preserved state (left), and X-ray showing the mortise (right). Ankara, The Museum of Anatolian Civilizations 69.5.66. Photo E. Simpson; X-ray photo courtesy Nimet Özgüç and the Museum of Anatolian Civilizations, Ankara.

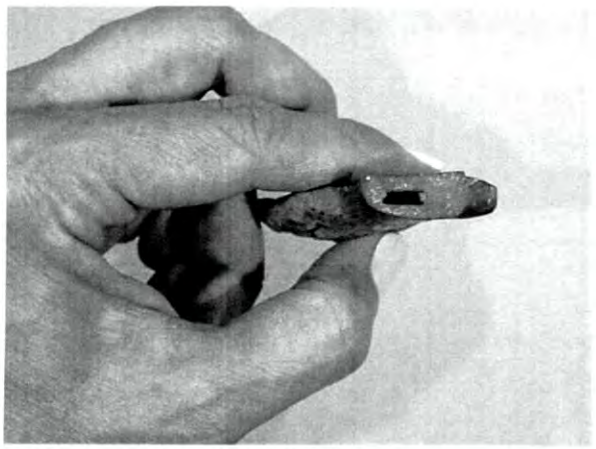

Figure 16.31. Inner edge of **AH1**, showing the mortise. Photo E. Simpson.

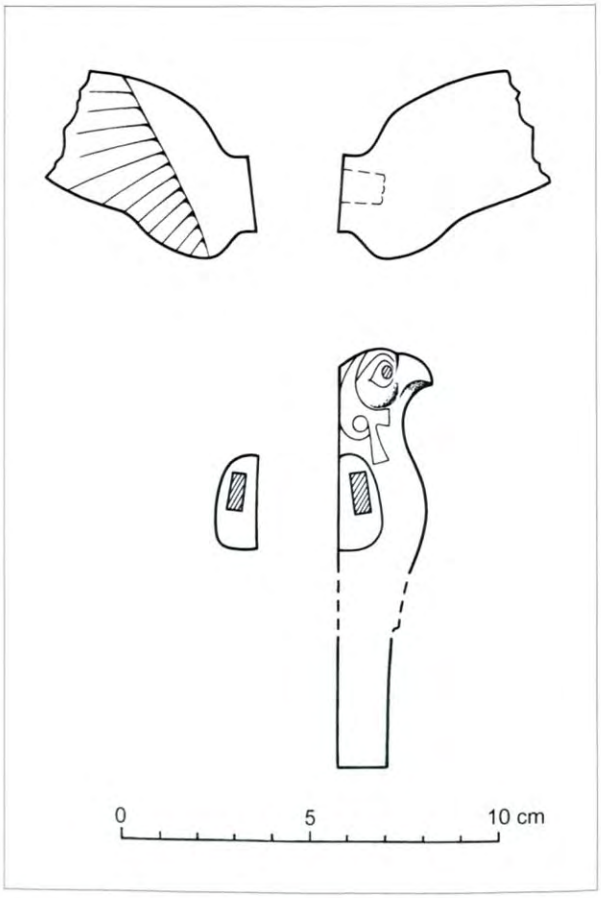

Figure 16.32. Drawings of wing **AH1**, now deformed and shrunken, showing the front and back view with mortise (top). Shown below is the inner edge of the wing, enlarged slightly to compensate for shrinkage, next to the side view of the falcon body **P8** to which it was once attached. Scale 1:2. Drawings E. Simpson.

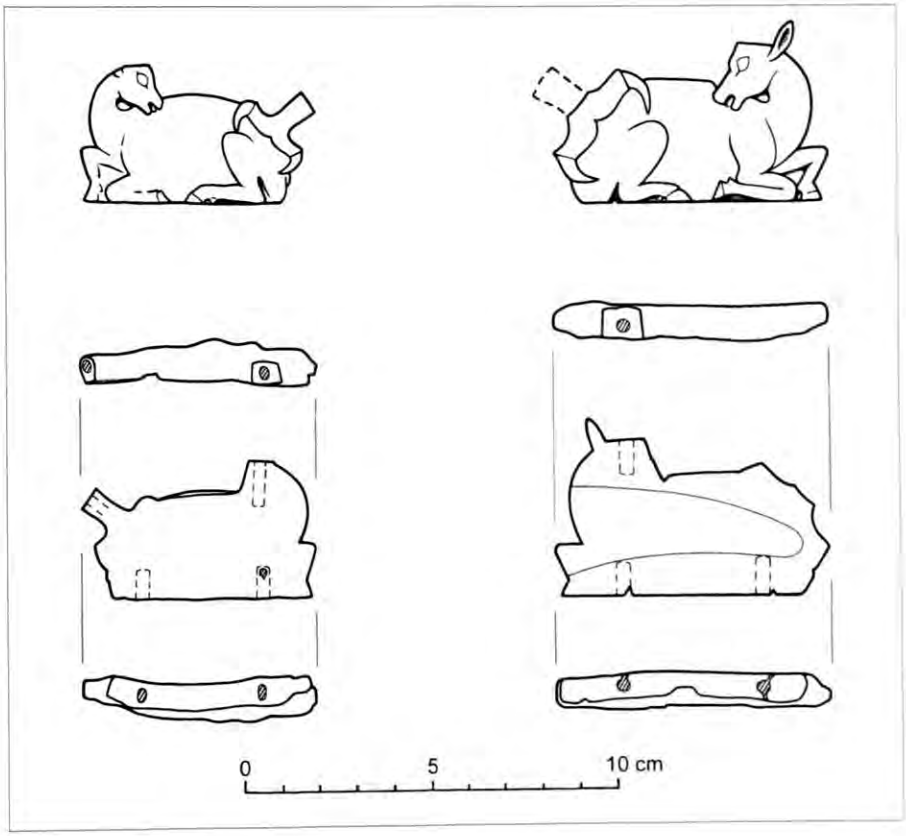

Figure 16.33. Drawings of the two gazelles that were caught in the falcon's claws, with the pink gazelle **P10** at the right and the red gazelle **P11**, now deformed and shrunken, at the left. The front views are shown above, and the top, back, and bottom views are shown below, with the joinery indicated. Scale 1:2. Drawings E. Simpson.

falcon's tail. Based on evidence from the smaller gazelle **P11**, the bird's foot had contained a pinhole at the top, no doubt for attachment to the body of the falcon. The feet had extended from the region of the break at the top of the tail, but due to the restoration it is now impossible to tell how the legs were joined to the falcon; it is not known exactly how the feathered thighs were indicated.

P11. Gazelle to falcon's right (viewer's left); MMA 36.70.4; Figs. 16.1 (below center), 16.25, 16.33 (left), 16.34 (left), 16.35. Ht. 3.7; w. 6.2; th. 1; th. at base 0.75 cm. Dimand 1936, fig. 3; de Mertzenfeld 1954, no. 1095; Harper 1969, fig. 9; Barnett 1982, pl. 25c; Aruz, Benzel, and Evans, eds., 2008, 88, no. 49. Gazelle (plaque) caught in the claws of the right foot of a bird. As with the plaque **P10**, this animal is missing its horns but can be identified as a gazelle. The plaque is modeled on the front with a flat back. The surface is deep pinkish orange, and the plaque is shrunken, mineralized, delaminated, and deformed, with pronounced bubbles on the body of the animal. The gazelle is recumbent and faces to the viewer's left; the head is turned back toward the animal's hindquarters and the foot of the falcon.

As with the gazelle **P10**, there is one pinhole in the top of the head and two extending up into the flat base. In addition, a pinhole is visible in the top of the foot, filled with encrustation. In all other ways, the two gazelles **P10** and **P11** are alike, although **P11** is deformed and considerably smaller, being 77%–86% the size of **P10** in terms of height and width. These percentages are comparable to the shrinkage that occurred in the red lion's leg **P7** and the falcon's right wing **AH1**. It will be evident that both the right wing and the gazelle to the right of the falcon (viewer's left) are in similarly poor condition, which suggests that this side of the falcon group was subjected to particularly harsh circumstances during the fire in the palace and subsequent burial.

Comments

The falcon and gazelle plaques are carved in the same distinctive style as the sphinx and lion leg supports, and the joinery is of the same type, featuring pinholes as well as mortises that were made by first drilling out the cavities and then finishing the sides with a chisel. The same drill bit was apparently used for the mortises and pinholes in several instances, as evident particularly for the lion legs and the falcon's body and wings. The diameter

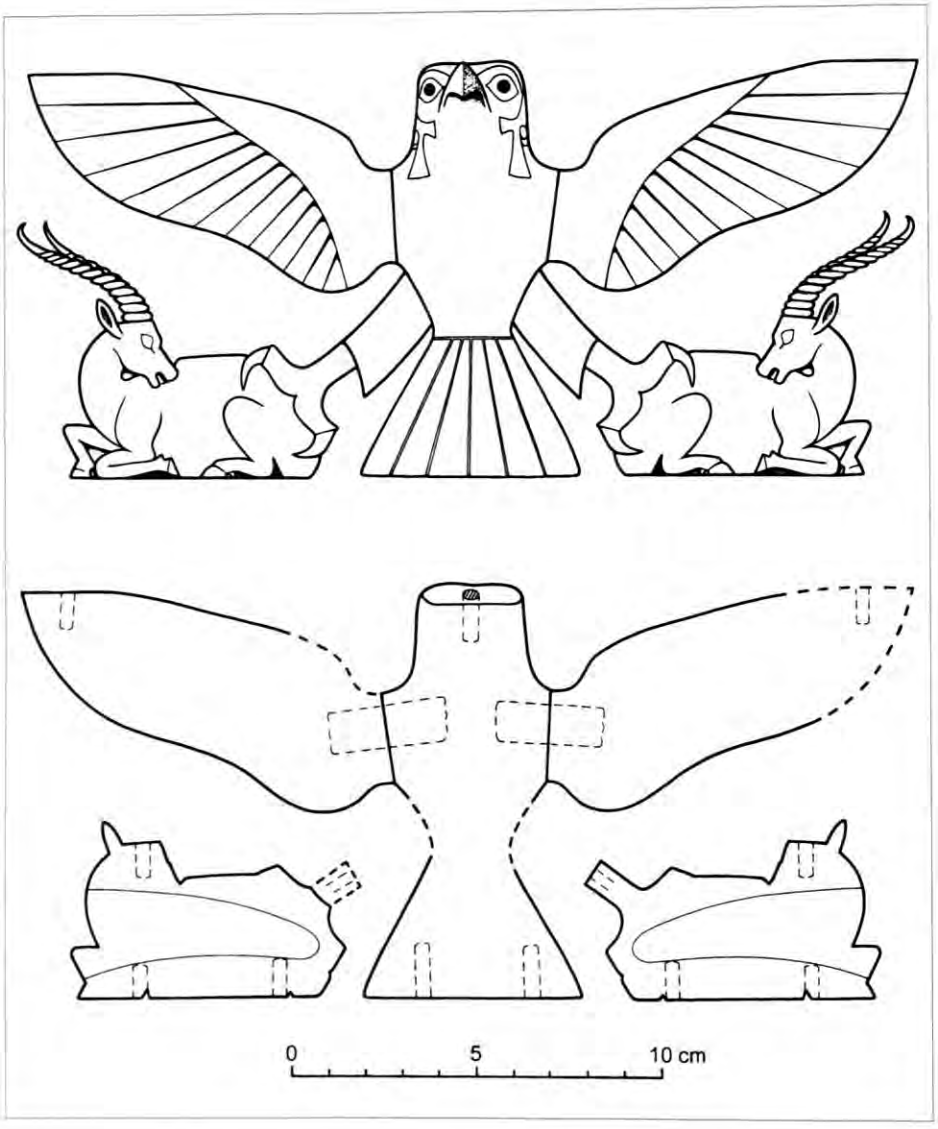

Figure 16.34. Drawings of the falcon and gazelle composition as it may once have appeared. The falcon (**P8**, **P9**, **AH1**) is flanked by the two gazelles (**P10**, **P11**) that it once held in its claws. The front views are shown above, with the wing and gazelle at the falcon's right (viewer's left) enlarged slightly to compensate for their present damaged condition; the legs of the falcon and horns of the gazelles are reconstructed. The back views of the extant pieces are shown below, with the joinery indicated. Scale 1:2. Drawings E. Simpson.

of the various pinholes ranges from 0.3–0.5 cm, depending on the overall degree of shrinkage exhibited, except in cases of extreme mineralization such as the red lion's leg, which shows a pinhole of less than 0.3 cm in diameter in the mortise cut into the back of the leg. Many pinholes no longer preserve their circular shape, further evidence of prevalent and irregular shrinkage.

It is the close stylistic and technical relationship between the falcon and gazelle plaques and the composite furniture legs that suggests that all these ivories had been fittings for a chair. Indeed, a falcon with outstretched wings (or a vulture or winged disk) is found on chair backs from Egypt and the Near East. Extant comparanda are later, however, beginning in the Seventeenth or early Eighteenth Dynasty, with well-known examples coming from the tomb of Tutankhamun (ca. 1322 B.C.E.) and Room SW.7 at Nimrud (eighth to ninth century B.C.E.) (Baker 1966, figs. 91, 92, 95–97; Mallowan and Herrmann 1974, pls. I, C–CIII; Killen 1980, pls. 96, 97, 100, 101; Fischer 1996, pl. 38). Egyptian falcons on furniture and other types of objects typically hold shen signs in their claws (Baker 1966, fig. 97; *Treasures of Tutankhamun* 1976, nos. 26, 27, pl. 16; Killen 1980, pl. 96). Near Eastern versions of the falcon motif (including the lion-headed Imdugud) may represent the bird's prey, including lions, stags, gazelles, and even the heads of one's enemy (Strommenger and Hirmer

1962, pls. 66, 70, 77, 79; Baker 1966, fig. 254). In Anatolia, the double-headed bird of prey occurs as a heraldic emblem on seals of the Assyrian Colony period (Bittel 1976, pls. 76, 78; N. Özgüç 1983, fig. 8; Özgüç and Tunca 2001, pls. 9:ST13, 17:ST32, 18:ST39, 23:ST68) and in the art of the Hittite Empire, with the stone gateway at Alacahöyük showing such a bird clutching two rabbits (Akurgal 1962, pls. 76, 77, 88).

Reconstruction of the Chair

The Pratt ivories **P1–P20** and the Ankara wing **AH1** can therefore be combined to make a low chair, which is reconstructed here in its simplest form (Figs. 16.35, 16.36). The height of the chair's legs is approximately 27 cm, with the seat somewhat higher. The falcon and gazelle plaques have been placed at the top of the chair back. Based on the form of low chairs in Egypt, such as the Eighteenth Dynasty chair of Hatnofer in the Metropolitan Museum (Killen 1980, pls. 88, 94, 95; Hayes 1990, fig. 115; Roehrig 2002, fig. 42), the back of the Acemhöyük chair is shown straight and not sloping. A sloping back, with a headrail that extends out to the rear of the chair at the top, was typical for higher chairs in Egypt and neighboring regions, evidently including Anatolia (N. Özgüç 1976, pl. III; Killen 1980, pls. 85–87, 96, 97, 99–102; Metropolitan Museum of Art 1987, fig. 31; Fischer 1996, 141–175). As low chairs are often associated with women in Egypt, perhaps the chair from Acemhöyük belonged to a princess or queen (Fischer 1996, pl. 34). The legs of the chair were composed of lion legs standing on top of sphinxes, with both elements facing forward at the front of the chair; at the back of the chair, the lion legs faced forward but the sphinxes were turned out to the sides. The chair was surely adorned with other ivories, with nine possibilities listed below (**P12–P20**; Fig. 16.37). These can be associated with the chair by virtue of their style and joinery, although it is now not possible to determine their original positions. These include complete and fragmentary plaques of three types: three kneeling lion-headed figures holding flowers (**P12–P14**), two seated sphinxes reminiscent of those at the bottom of the chair legs (**P15, P16**), and three or four lions eating their prey, which in one case can be identified as a gazelle (**P17–P20**). The plaques range in color from gray to reddish orange, and vary in size and condition, as with the other Pratt ivories. Two retain their inlaid eyes (**P15, P17**), and five show patches of gilding (**P12–P14, P17, P18**). All contain pinholes, drilled in the top and base and utilizing the same technique as in the falcon, gazelles, and structural components.

Additional Figural Plaques Associated with the Ivory Chair

P12. Kneeling lion-headed figure, facing right, gray; MMA 36.70.15, 37.143.3; Figs. 16.1, 16.37. H. 11.2; w. 5; th. 0.95 cm. De Mertzenfeld 1954, no. 1083 (bottom section), no. 1085 (drawing); Harper 1969, fig. 3 (lower left); Barnett 1982, pl. 26c; Aruz, Benzel, and Evans, eds., 2008, 87, no. 48a.

P13. Kneeling lion-headed figure, facing left, gray; MMA 36.70.14, 37.143.4; Figs. 16.1 (below center), 16.37. H. 10.85; w. 5.8; th. 1.05 cm. De Mertzenfeld 1954, no. 1084 (top section only); Aruz, Benzel, and Evans, eds., 2008, 87, no. 48b.

P14. Fragmentary kneeling figure, facing left, red; MMA 37.143.5. H. 4.7 cm; w. 4.6 cm; th. 0.6 cm.

P15. Fragmentary sphinx plaque, facing right, gray; MMA 36.70.11; Figs. 16.1 (below center), 16.37. H. 7.5; w. 5.5; th. 0.95 cm. De Mertzenfeld 1954, no. 1089; Harper 1969, fig. 4; Barnett 1982, pl. 26a; Aruz, Benzel, and Evans, eds., 2008, 84, 85, no. 46b, fig. 29 (below).

P16. Sphinx plaque, facing left, orange; MMA 36.152.2. H. 8.6; w. 4.9; th. 0.85; th. at bottom where split 1.15 cm. De Mertzenfeld 1954, no. 1090.

P17. Lion eating gazelle, facing right, orange; MMA 36.152.3; Fig. 16.37. Ht. 8.8; w. 5.3; th. 0.8 cm. De Mertzenfeld 1954, no. 1096; Harper 1969, fig. 3 (upper right); Mellink 1969, 286, fig. 6.

P18. Lion eating prey, facing left, gray; MMA 37.143.1. Reconstructed h. perhaps 10.5; w. 6.1; th. 0.85 cm.

P19. Fragmentary lion eating prey, facing left, gray; MMA 36.70.16a; Fig. 16.1 (left, below center). H. 8.55 cm; w. 6.9 cm; th. 0.95 cm. De Mertzenfeld 1954, no. 1093.

P20. Head of lion eating prey, facing right, and associated fragment, gray; MMA 36.70.16b, c; Fig. 16.1 (left, below center). H. 3.4 cm; w. 3.8 cm; th. 0.95 cm. De Mertzenfeld 1954, no. 1093.

Comments

Based on Egyptian comparanda, one might envision these plaques on the chair back—to the sides of or below the falcon/gazelle group—or under armrests, between the seat of the chair and the lower leg

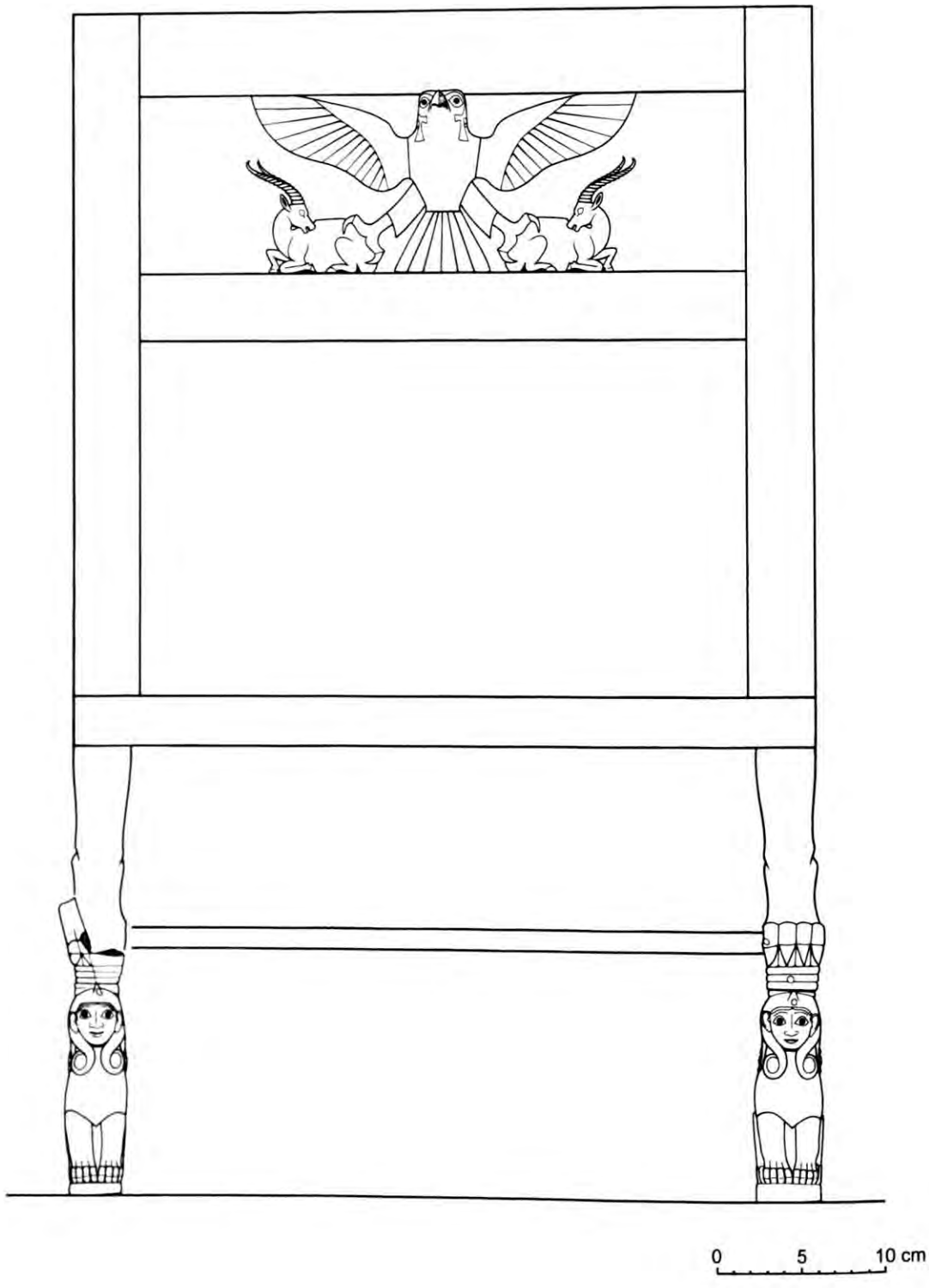

Figure 16.35. Front view of the ivory chair reconstructed. The right front leg (**P2** and **P7**), left front leg (**P4** and **P5**), and leg stretcher are indicated, and the falcon and gazelle plaques are shown at the top of the chair back. The most damaged pieces have been enlarged slightly to compensate for deformation and shrinkage. Scale 1:4. Drawing E. Simpson.

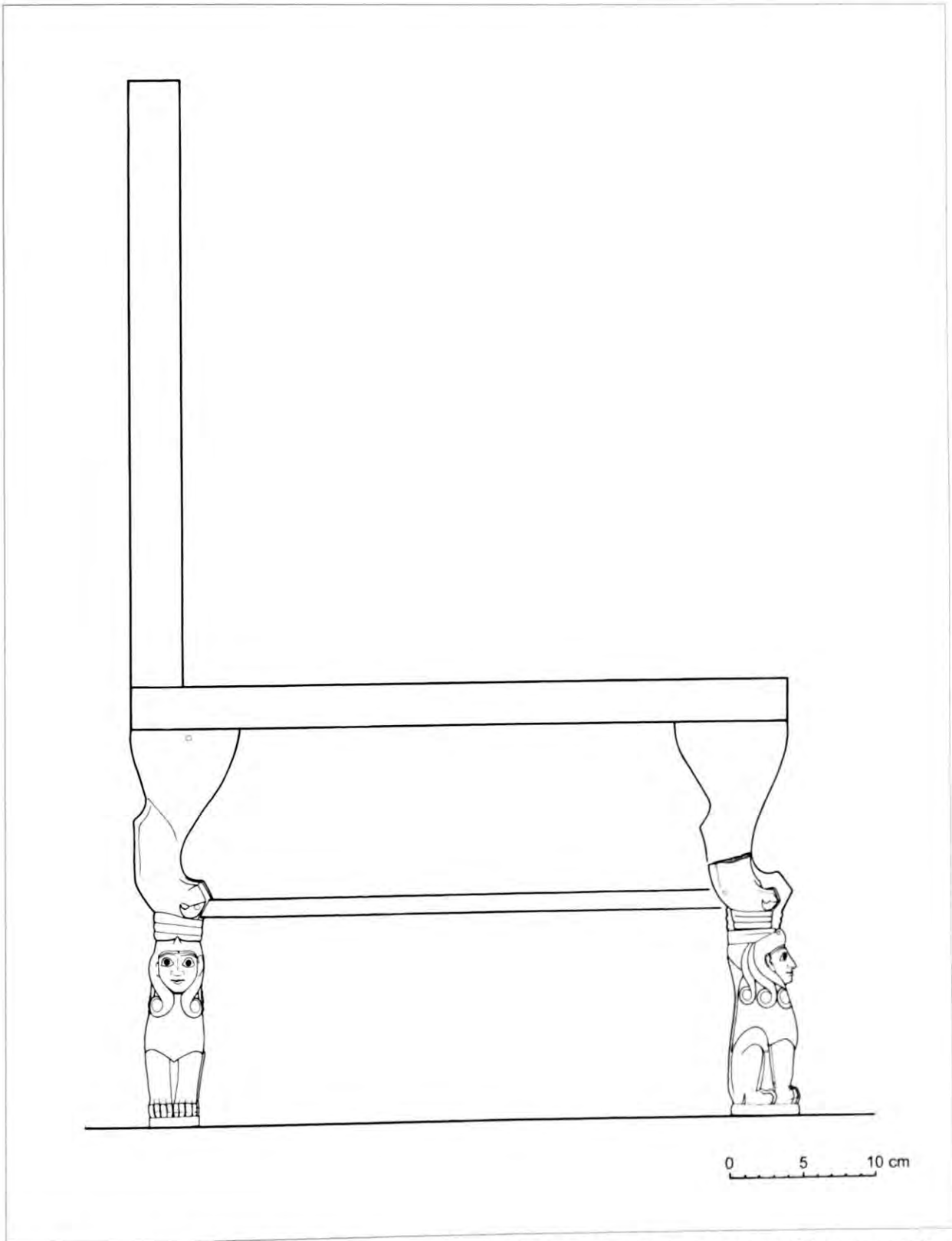

Figure 16.36. Right side of the ivory chair reconstructed, showing the disposition of the components of the composite legs. Both elements of the front leg face forward (**P2** and **P7**); the leg fragment is shown along with its reconstruction, and the sphinx is enlarged slightly to compensate for its present condition. At the rear, the lion's leg **P6** faces forward, and the sphinx **P1** is turned to the side. Scale 1:4. Drawing E. Simpson.

P12

P13

P15

P17

Figure 16.37. Four ivory plaques from the Pratt collection (**P12**, **P13**, **P15**, and **P17**), exhibiting color variation, deformation and shrinkage, inlay for the eyes, and evidence of gilding. Aruz, Benzel, and Evans, eds., 2008, nos. 46b (**P15**), 48a (**P12**), and 48b (**P13**). Photos © The Metropolitan Museum of Art (top and bottom left); photo E. Simpson (bottom right).

stretchers, or even on a matching footstool (Baker 1966, color pls. IVb, V, pls. 93, 94). The group of lion-headed figures **P12–P14** had apparently included a fourth plaque. Two of the plaques, facing left and right, show a human foot at the rear (Fig 16.37:**P12**), in the manner of a small figure from the Pratt collection (Addenda, 37.143.2; Aruz 2008, 89, no. 51). The third plaque, facing left, has a squared-off skirt at the back with no foot visible (Fig. 16.37:**P13**). This variation must be related somehow to the original position of the plaques. Likewise, the lions with prey **P17–P20** are a group of four plaques, with two facing left and two facing right (Fig. 16.37:**P17**), although one consists of a small fragment (**P20**). The sphinx plaques **P15**, **P16** face right and left and may have been a group of two (Fig. 16.37:**P15**). If so, they could possibly have flanked the falcon/gazelle group on the chair back: their height can be reconstructed at approximately 11.3 cm, which is comparable to the height of the falcon's body (11.1 cm). The height can be determined based on the size of the fragmentary gray sphinx plaque **P15**, which is not otherwise damaged or distorted, in combination with the complete but very shrunken orange sphinx plaque **P16**. The two sphinxes would fit nicely to either side of the falcon group, although this arrangement is by no means certain. The other plaques in this series are also around the same height, which conforms approximately to the distance between the seat of the chair and the leg stretchers that connected the lion legs at the level of their feet. Ivory strips incised with rosettes or guilloche patterns may also have belonged to the chair (see Addenda); comparanda include a chair from the tomb of Tutankhamun decorated with gold strips featuring the guilloche (*Treasures of Tutankhamun* 1976, cat. no. 12, pl. 2).

An ivory relief excavated at Pella in Jordan, probably made around the middle of the second millennium B.C.E., features two confronted lions with front paws placed on intertwined uraei at the center of the composition (Potts 1986, pl. XXVI; 1987, figs. 1, 2; Morris 2008, fig. 139). The lions were carved separately and set into a rectangular ivory field, which has been reconstructed on the lid of an Egyptian-style box. The Pella lions have been compared to some of the Pratt plaques, particularly in regard to the stylization of the mane, although otherwise they exhibit only a general resemblance (Potts 1987, 66). This leaves open the possibility, however, that some of the Pratt plaques, particularly those given in the Addenda, may have been attached to boxes or other small objects that were kept in the Sarıkaya palace in the vicinity of the ivory chair.

Concluding Remarks: The Condition, Appearance, and Context of the Acemhöyük Ivories

The ivory sphinxes, lion legs, and probably also the plaques associated with the chair were made of hippopotamus ivory, with indications that several of the pieces were cut from the lower canines. In some instances, notably for the lion legs, this must have dictated the size and shape of the pieces. Thus, there may have been some irregularity to the ivories in their original condition. This was greatly exacerbated by the damage they incurred in the burning of the palace, which caused the chair to break apart and baked the ivories until the organic matter they contained had been eliminated (de Lapérouse 2008, 85). This resulted in the mineralization of the ivories, accompanied in extreme cases by marked shrinkage, warping, delamination, and distortion, including the bubbling of the surface.

Patches of gold leaf remaining on the ivories indicate that many areas were gilded, such as the hair, headdress, and irises of the four sphinxes **P1–P4**, the moldings below the feet of the lion legs **P5–P7**, the irises and cere of the falcon **P8**, and the irises, manes, ears, and pleated garments of the figures of the plaques **P12–P14**, **P17**, and **P18**. A large section of the breast of **P13** retains its gilding, as does a portion of the left arm of **P12**, suggesting that more of the ivories' surface may have been gilded than implied by their present condition (Fig. 16.37, top). Traces of silver were revealed on the falcon's body by X-ray fluorescence, although the source was not discovered (Aruz 2008, 89). The pupils of the eyes of the figures were once inlaid, as shown by four examples (**P1**, **P8**, **P15**, and **P17**). Thus the ivories

were enhanced with areas of gold leaf and perhaps silver, and the eyes had golden irises and dark, inlaid pupils.

The absence of much of the gilding must be due to its having burned off during the fire, which would have occurred at a temperature of 1064°C, the melting point of gold. Temperatures this high are in keeping with the vitrification of brick, which was widespread in the burning of the Acemhöyük palaces (for a similar situation at Kültepe, see Larsen 2008, 70). At such temperatures, ivory is completely mineralized and becomes white, as shown by tests carried out by scientists at the Metropolitan Museum. In an effort to understand the color variation in ancient ivories, and particularly the Pratt ivories, 14 small samples of elephant ivory were heated for periods of one hour in increasing increments, producing a range of colors from light yellow (204°C) to brownish black (316°C–538°C) to black (593°C) to grayish blue (649°C–760°C); at 816°C and above, the samples turned white (Baer et al. 1971, 3). Further tests involved the addition of charcoal or carbon to induce a reducing atmosphere, which expanded the temperature range for the grayish-blue color, such that at 871°C a light grayish blue occurred, with the color in the interior darker than at the surface (Baer et al. 1971, 5). Although Baer and his colleagues did not go beyond this upper limit, the sequence shows that by 1000°C elephant ivory clearly turns white, even in a pronounced reducing atmosphere.

This study has been used to explain the gray color of some of the Pratt ivories, purportedly due to the heat of the fire to which they were exposed. It doesn't account, however, for the red color, or the pink or pinkish gray. In fact, it doesn't actually explain the gray color, which cannot be due to exposure to temperatures between 649°C and 871°C. The loss of gilding, which is most complete in the gray examples, indicates that these pieces experienced temperatures of at least 1064°C over most of their surface. Chipped areas on several of the gray ivories show that their interior is white, which is consistent with the high temperatures needed to melt the gold. In these instances, the gray is a surface layer and must relate to some other phenomenon. An investigation of the red Pratt ivories may provide a solution to the mystery surrounding the ivories' color.

Colored ivories were highly valued in antiquity, as indicated by their mention in ancient texts. They appear in two of the Amarna letters, which record a request to the pharaoh Akhenaten from Burna-Buriyaš, king of Babylon [EA 11], and an inventory of gifts sent by Akhenaten to Burna-Buriyaš [EA 14]. Reference is made in these letters to "stained" or "colored" ivory animal paws, decorative attachments in the form of plants, boxes, and other items (Moran 1992, 21, 34). Hittite texts refer specifically to items of "red" ivory, although the kinds of objects listed are obscured by lacunae (Güterbock 1971, 2, 5; for the Anatolian practice of staining ivory red [φοίνικι], see also Hom. *Il.* 4.141–142). Egyptian stained or painted ivories are extant, exhibiting a wide range of color. The most stunning is the ivory box from the tomb of Tutankhamun that depicts the king and queen on the lid, framed in a garden setting (*Treasures of Tutankhamun* 1976, pls. 32, 33). Simpler objects were also colored, such as a set of game wands or casting sticks in the Metropolitan Museum that are now pinkish red, with the undersides left white (Hayes 1990, fig. 114).

By contrast, the deep red of the Pratt and Ankara ivories is more opaque than in the Egyptian examples, and the color can be found on all surfaces, including the tops and bottoms of the seated sphinxes and lion legs and the backs of the plaques. The red color of the Pratt ivories is due to the presence of iron oxides, as determined by tests conducted at the Metropolitan Museum (Koestler, Indictor, and Harneman 1990; de Lapérouse 2008, 85). The red coloring, which overlies the white interior, was found to be "extraneous to the ivories themselves" (Koestler, Indictor, and Harneman 1990, 73). The high iron content suggests an iron-bearing clay, such as might be used for a clay bole to form a base for the gilding. Such a clay base would have facilitated the burnishing of the gold and produced a brilliant and highly reflective surface. However, since the red coloration is found on all surfaces, including the bottoms and backs, which surely would not have been gilded, it seems unlikely that the coating is only a bole. Nonetheless, it may be a clay slip, as the intense red color of the darkest pieces recalls the fine red slip ware of the Assyrian Colony period (see T. Özgüç 2003, 142–229, for numerous examples). If so, the slip would have had a dual purpose—as a colorant for the ivories and as a base or bole for the gilded areas.

The Acemhöyük ivories may have been colored with such a slip, and then gilded, to produce

the kind of "red" ivories mentioned in the Hittite texts. During the burning of the palace, if the ivories were heated to high temperatures in an oxidizing atmosphere, the clay slip would have fired and turned a dense red, remaining red even through the loss of the gilding. Those ivories covered by falling debris, likely containing charcoal or burning timbers, would have been heated in a reducing atmosphere, without the presence of oxygen, turning the clay slip to gray. Some of the gray ivories belonged at the rear of the chair, notably the gray sphinx **P3** and the gray lion's leg **P6**, suggesting that the chair had been placed against a wall with the rear partially protected from open flames. The light red, pink, and grayish pink ivories would have experienced varying conditions that involved both burning in the open and heating beneath fallen debris. Open burning seems to have affected the front of the chair, particularly at the right (the dark red sphinx **P2** and fragmentary red lion's leg **P7**), as well as the right side of the chair back (the wing **AH1** and the gazelle **P7**). This thesis is consistent with most of the damage seen on the pieces, although it requires the migration of color into some of the cracks and across certain broken surfaces at the time of the fire (de Lapérouse 2008, 85). The reaction of iron-bearing clay to oxidizing and reducing conditions, when fired at temperatures in excess of 800°C, has been studied extensively with respect to Attic Greek pottery, which was decorated with black "glaze" that was actually a fine clay slip made from the same red clay as was used to make the pots (Noble 1988, 79–81, 167). Ancient ivory colored with a clay slip has not yet been studied with regard to the effect of high temperatures; further research is anticipated relating to the foregoing hypothesis.

If this theory is correct, the ivory chair may be envisioned in all its colorful detail. The frame was surely made of fine wood, ornamented with red ivory attachments enlivened with gilding, inlay, and other additions, likely in precious metal, such as the horns of the gazelles. The unusual legs of the chair, composed of lion legs standing on sphinxes, were joined to one another by wood stretchers at the level of the lion feet, and the tops of these legs supported the wooden frame of the seat. The falcon and gazelles were attached to the wooden chair back, and nine or more other plaques were associated with the chair. Ivory strips with incised decoration possibly sheathed parts of the wood. Finally, textiles of "royal quality," imported from Mesopotamia, may have cushioned the chair's seat (Veenhof 1972, 144–213). With the archaeological context of the Pratt ivories established with certainty, the site of Acemhöyük regains one of the most important artifacts to survive the destruction of its palaces. And the ivory attachments, which have existed so long as isolated museum objects, can be brought together to form a remarkable piece of ancient furniture.

Addenda: Additional Ivories in the Pratt Collection of The Metropolitan Museum of Art.

Small leg top, with calf's head, fragments, 36.70.9
Plain leg top, fragments, uncataloged
Pilaster with diagonal ridges, 36.70.10
Rampant lion, plaque, facing right, gray, 32.161.48
Rampant lion, plaque, facing right, pink, 36.152.5
Fragment with incised monkey, 36.152.9
Plaque with incised griffin, 36.152.7
Fragment with incised ducks, 36.152.6
Fragments with incised guilloche, 36.70.13; 37.143.11, 14, 26–32
Fragments with incised rosettes, 36.70.12, 37a, b; 37.143.13
Fragment with incised chevrons, 37.143.22
Figure of a kneeling man, 37.143.2
Figure of a bull-man, 36.70.3
Head of a man, 36.152.10
Carved attachment with monkey, 36.152.8
Miniature monkey, 36.152.11
Disk pinhead, 36.70.2
Fragments of ivory plates, with studs, 36.70.35, 36; and associated fragments
Miscellaneous ivory fragments, 36.70.37c–g; 37.143.8–10, 12, 15–21, 24, 25; and associated fragments

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Published by
INSTAP Academic Press
Philadelphia, Pennsylvania
2013