# The Goddess from Morgantina

by Clemente Marconi

Plates 1-13

## Introduction

The Goddess from Morgantina (pls. 1–11 figs. 1–6) represents one of the best examples of Greek stone statuary of the Classical period, thanks to both the quality of its workmanship and its remarkable state of preservation. This rather exceptional piece also represents one of the best examples, in sculpture, of the Rich Style of the late fifth century. Known to the public since 1988, and already subject to a variety of interpretations regarding its identification and style, so far the statue has not been the object of a detailed publication. In addition to supplying a rich photographic documentation of the statue, this study will provide readers with a full presentation of the sculpture and of the problems associated with it<sup>1</sup>.

Location: Aidone, Museo Archeologico Regionale inv. no. 192.

## Measurements

Max. pres. height: 2.14 m. – Width at shoulders: 0.54 m. – Max. pres. height of head: 0.26 m. – Height of face: 0.25 m. – Height from upper lip to hairline: 0.185 m. – Height from base of nose to hairline: 0.18 m. – Height from bridge of nose to hairline: 0.088 m. – Height from below chin to base of nose: 0.09 m. – Height from chin to base of nose: 0.083 m. – Distance between earlobes: 0.158 m. – Max. width of face: 0.17 m. – Max. pres. depth of head: 0.239 m. – Width of mouth: 0.057 m. – Distance between inner corners of eyes: 0.045 m. – Distance between outer corner of eyes: 0.125 m. – Width of right eye: 0.05 m. – Width of left eye: 0.05 m. – From right corner of mouth to right ear:

1 I would like to thank Adolf H. Borbein and Christian Kunze for inviting me to publish this study in Antike Plastik, and Karol Wight, Janet B. Grossman, and Kenneth D.S. Lapatin for their warm and generous help with this project at the Getty. I would also like to thank the following people for discussing with me the various problems associated with the statue: Malcolm Bell, Lucia Faedo, Caterina Greco, Olga Palagia, Rosalia Pumo, Salvatore Settis and Paul Zanker. Last but not least, I would like to thank Sonia Amaral Rohter for assisting me with the editing of the text.

Unless otherwise specified, dates are all B.C.

2 Formerly Malibu, The J. Paul Getty Museum, accession number 88.AA.76. In absence of new inventory numbers in Aidone, references for the fragments will be made to the Getty accession numbers. On July 31, 2007, the Italian Ministry of Culture and the Getty Trust reached an agreement in which the Getty agreed to return forty objects from the Museum's antiquities collection to Italy. Among these objects is the Goddess from Morgantina. This agreement was formally signed in Rome on September 25, 2007. Under the terms of the agreement, the statue remained on view at the Getty Villa until the end of 2010. The statue was returned to Italy and put on display in the Aidone Museum in march 2011.

0.119 m. - From left corner of mouth to left ear: 0.116 m.

- Length of nose: 0.085 m. Max. width of neck: 0.136 m.
- Max. pres. length of marble right forearm and hand:
   0.523 m. Max. pres. length of marble right hand:
   0.14 m.

#### State of Preservation

At the time of its acquisition by the Getty, the limestone body of the statue was broken into three large segments, which had been drilled and pinned to each other in the modern period. The first segment corresponds to the top section, from the shoulders down to the mid-chest. The second segment corresponds to the area between the midchest and the top of the knees. The last segment corresponds to the area from the top of the knees down to the termination of the statue. The fractures separating these three segments are roughly horizontal with respect to the vertical stance of the sculpture. In order to reassemble the body, a single 9.5 mm hole was drilled through each of the three segments in such a way that when the segments were assembled a single hole ran down the entire length of the statue along its central axis. After using an epoxy interface to regularize the joining surfaces (which exhibited limited weathering) between the segments a high-strength 9 mm cable was threaded through the hole that ran along the central axis of the three segments. The top of the cable terminated in a threaded insert, which was fitted into an anchor attached to the central hole of the socket for the marble tenon of the head. The lower terminus of the cable was fed through the top of the pedestal where it was connected to a tensioning block3.

The marble head, right arm, and right foot have been reattached to the limestone body. Three fragments of the marble left hand and one fragment of the marble left foot cannot be reattached to the statue. Similarly, a total of 103 drapery fragments, belonging for the most part to the himation, remain separate.

The statue is nearly complete and its surface is in remarkably good condition, with the edges of the sculpted forms well preserved. There are, however, some areas of loss, and several areas of damage to the surface.

Of the limestone body (pls. 1–9), the end of the himation at the left arm and the portion of the himation originally drawn upon the neck (and perhaps also over part of the head) are broken away. The following parts are damaged. On the front side: the right breast, the tip of the left breast, the left leg, the right knee, and the lower edge of the statue. On the proper right side: the right shoulder; the right arm, including the sleeve of the chiton; the section of the himation under the sleeve of the chiton; the folds of the himation wrapped around the right lower leg; and the lower edge of the statue. On the back side: the chiton and the himation, particularly in the upper torso, and, in the case of the himation, at the right buttock. On the proper left side: the folds of the himation and the lower edge of the statue.

Of the marble head (pls. 10–11), the nose is broken, particularly the proper left side and part of its middle. There are minor abrasions on the back of the neck, immediately behind the ears. The fingers of the marble right hand (fig. 1) are missing.

Of the marble left arm, the forearm is missing, while the corresponding hand is fragmentary. One fragment corresponds to the palm, and includes part of the wrist (fig. 3). Two smaller fragments correspond, respectively, to part of the little finger and part of the middle finger (fig. 4). These fragments are separate, but they can be rejoined with the main fragment of the left hand.

Of the marble right foot, the distal phalanx of the big toe is broken away. The tips of the fourth toe and the little toe are also broken away. The index toe and the middle toe have been rejoined to the rest of the foot. The marble left foot is missing, except for a fragment consisting of the index and middle toes (fig. 5).

# Description

The Goddess from Morgantina stands with its weight on the right leg and with the left leg placed laterally (pls. 1–8). The right foot is flat on the ground, while the left foot, which was positioned slightly behind the right foot, had

the heel raised off the ground. This stance affects the alignment of the hips, of which the right rises while the left dips. The alignment of the hips is counterbalanced by the position of the shoulders, of which the left one rises

**<sup>3</sup>** Part of the conservation treatment of the statue at the Getty is described in Minerva I 1, 1990, 13.

while the right one dips. The alignment of the shoulders is in keeping with the different positions of the arms. The right arm, which corresponds to the weight-bearing leg, is extended forward. The left arm, which corresponds to the bent, free leg, is bent at the elbow and slightly drawn back. The head is turned slightly to the proper right – the side of the weight-bearing leg – and the eyes do not meet those of an observer standing in front of the statue.

The face forms a regular oval (pl. 10). The contours of the facial features are fairly soft. The forehead is high and triangular and it is framed on both sides by wavy hair suggested in low relief above the temples. The bridge of the nose is somewhat wide. The contours of the eyebrows are sharp at the inner corners and softer towards the sides. The eyes are placed high up in their sockets and closely approach the eyebrows. The upper eyelids are thicker and are made to pass over the lower eyelids at the outer corners. The lacrimal caruncles are indicated at the inner corners, but they are not particularly marked. The eyeballs are slightly convex. The mouth is small and fleshy. The lips curve and the lower lip is shorter and thicker than the upper. A narrow groove between the lips gives the impression that the mouth is slightly parted. The chin is particularly strong and the jaw line is straight. The lobes of the ears are relatively small. The neck is rather tall and in comparison with the head it appears thick.

The marble head and neck are carved in the round (pl. 11). The head ends immediately above the hairline and the earlobes, which suggests the presence of an added section corresponding to the mass of hair. With this added section the head would appear in proportion to the rest of the body, rather than disproportionately small, as it looks now that the hair is missing (the ratio between the height of the face and the original height of the statue can be estimated as about 1:9, which is close to normal). Behind the triangular-shaped forehead, the head slopes back. The top of this part of the head has an ogival profile and its surface has been worked with a point and a chisel

so that the surface appears rough. There are three pinholes on this surface. One is located in the middle, behind the forehead. The other two are located at the sides, above the ears. The pinhole in the middle is vertical (0.018 m in diameter, 0.06 m in depth), while those at the sides are almost horizontal (left pinhole: 0.02 m in diameter, 0.06 m in depth; right pinhole: 0.017 m in diameter, 0.075 m in depth). These three pins must have served to fasten the section added on top of the marble head. Rolley has suggested that this added section would have been made of plaster4. The relative irregularity of the joining surface would seem to speak in favor of this possibility<sup>5</sup>. Plaster additions, however, were normally attached using glue or relatively small pins, pins smaller than those evidenced by the three large pinholes seen on the back of our head. There are, of course, exceptions, including a series of Ptolemaic portrait heads that must have originally been completed with plaster and which each preserve one large square pinhole on their backs6. However, the number and location of the pinholes on the back of our head suggest that the added section was of a material heavier than plaster. Metal, in particular gilt bronze should be considered first7. Pinholes comparable in size to those of our head are in fact often found on heads from akrolithic statues, on which they were probably meant to hold metal attachments8. However, the facts that our head slopes back behind the forehead and that the back portion is not fully rendered in marble, would seem to speak against a metal attachment. In Archaic and Classical Greek sculpture, when bronze was used to render the mass of hair covering the head, it was in the form of a wig. Bronze wigs were attached to heads whose crania were fully rendered in marble, including the backs9. For this reason, the fact that part of the back of our head was not rendered in marble would seem to speak against the possibility of gilt bronze for the attachment. Unlike bronze, stone is a good candidate. The fact that the joining surface on the back of our head has been worked rough and is irregular does not

- 4 Rolley 1994, 77; Rolley 1999, caption to figs. 183-184.
- 5 In general, on the use of plaster by Greek sculptors for completing heads see C. Blümel, Griechische Marmorköpfe mit Perücken, AA 1937, 51–59; V.M. Strocka, Aphroditekopf in Brescia, JdI 82, 1967, 120–137; C. Blümel, Stuckfrisuren an Köpfen griechischer Skulpturen das sechsten und fünften Jahrhunderts v. Chr., RA 1968, 11–24; Häger-Weigel 1997, 152; A. Laronde F. Queyrel, Un nouveau portrait de Ptolémée III à Apollonia de Cyrénaïque, CRAI 2001, 746–759, 773–782.
- 6 See esp. the head at the Louvre inv. Ma 3168: J. Charbonneaux, Portraits ptolémaïques au Musée du Louvre, MonPiot 47, 1953, 106–111 figs. 10–11 pl. IX; H. Kyrieleis, Bildnisse der Ptolemäer (Berlin 1975) 46–51. 171 no. D3 pls. 34–35; R.R.R. Smith, Hellenistic Royal Portraits (Oxford 1988) 165–166 no. 51 pl. 36; Laronde Queyrel (above n. 5) 746–759.
- 7 Giuliano 1993, 57 and Bell 2007, 14 and 17 have suggested that our statue had gilt bronze hair. The best parallel for the pinholes
- on our head is offered by the three holes above the temples of the akrolithic head in the Vatican inv. 905: Langlotz 1963, 76 pls. 86–87; Häger-Weigel 1997, 68–74. 147–165. 262 cat. no. 3 pls. 35,1–36,2; F. Sinn (ed.), Vatikanische Museen, Museo Gregoriano Profano ex Lateranense. Katalog der Skulpturen 3: Reliefgeschmückte Gattungen römischer Lebenskultur. Griechische Originalskulptur. Monumente orientalischer Kulte (Wiesbaden 2006) 17–20 pl. 2,1–4.
- 8 See Ch. Reusser, Der Fidestempel auf dem Kapitol in Rom und seine Ausstattung (Rome 1993) 173.
- 9 B.S. Ridgway, Metal Attachments in Greek Marble Sculpture, in: M. True J. Podany (eds.), Marble. Art Historical and Scientific Perspectives on Ancient Sculpture (Malibu 1990) 194–195; T. Schäfer, Gepickt und versteckt. Zur Bedeutung und Funktion aufgerauhter Oberflächen in der spätarchaischen und frühklassischen Plastik, JdI 111, 1996, 25–74; T. Schäfer, Marmor und Bronze: Materialluxus griechischer Plastik in spätarchaischer Zeit, AW 34, 2003, 575–584; Palagia 2006, 262.

represent a problem. One may mention, as a parallel for our statue, the metopes of the Heraion (Temple E) at Selinus, which were carved using the same pseudo-akrolithic technique. The heads belonging to the metopes of the east frieze (fig. 7) show a rendering of the back that is comparable to the head of our statue<sup>10</sup>. One may also mention Roman portraits with separately carved coiffures of the Late Antonine and Severan periods, whose backs are also rough and not very regular11. As for the type of stone, marble would hardly be expected, while limestone appears very likely, also in consideration of the fact that our statue was produced using the pseudo-akrolithic technique. Besides stone, wood, the material commonly used for the body of akrolithic statues, should be taken into consideration. The fact that the mass of hair of our statue is entirely missing might imply the use of some perishable material<sup>12</sup>. However, given the consistent use of limestone for the body of our statue, the use of this material for the section added to the head would seem the most likely of the three possibilities.

On the proper right side of the head, there are the remains of two additional pinholes, above and behind the earlobe, circa 0.03 m apart (pl. 11 a). These two additional pinholes, which were both vertical and of about the same size (0.018 m in diameter), were later recut, along with the rest of the upper edge of the head on this side. This later recutting was done with the help of a claw and a chisel, which have left their marks. One last pinhole is found on the proper right side of the nape of the neck. This pinhole is horizontal (0.013 m in diameter, 0.035 m in depth).

As already mentioned, wavy hair is suggested in low relief above the temples (pls. 10. 11 a-c). The relief is too shallow to reproduce the actual hair, and it probably served to mark the lower limit of the added section corresponding to the top of the head<sup>13</sup>. For this reason, two small incisions to the viewer's left, near the top of the forehead, should not be taken as an indication of the di-

vision of the hair into three strands, but rather should be understood as the result of an accident. We have some indication of the original arrangement of the hair on the back of the head. Of the ears, only the lobes are indicated. In addition, slight incisions above the nape of the neck allude to the hairline. One can conclude that the hair, which was parted in the middle above the forehead, was drawn back covering part of the ears, and was gathered in a chignon leaving the nape of the neck free.

Below, the marble neck ends in a tenon, which has an approximately hemispherical section (pl. 11). This tenon, which is not particularly big, sits in the concave socket located between the shoulders of the limestone torso. On the occasion of the conservation treatment of the statue at the Getty, it was noted that the tenon does not fit accurately in its socket, and that it only seats in three or four small spots. There is an ancient hole on the bottom of the tenon, towards the front. Since a modern hole has been drilled in the socket between the shoulders to secure the head, the existence of an ancient hole in this location, corresponding to the hole in the tenon, if any, can no longer be established.

The right arm is extended toward the viewer, and the palm of the hand is turned to the side. Although the fingers are in large part missing, enough remains to suggest that the hand was not entirely open, and that the thumb was bent forward, while the middle finger and the ring finger were slightly bent toward the palm (fig. 1). The turning of the hand to the side precludes the possibility that it held an object, such as a Nike, standing on its palm<sup>14</sup>. The hand, however, was clearly not relaxed but rather was holding an object that is now impossible to identify. A spear or a torch should be excluded, based on the position of the arm, the hand, and the fingers. A scepter or a phiale are both possibilities, although each has its problems. The fact that the arm is too low and the hand is not clenched would seem to speak against a scepter: compare it, by contrast, to the left hand of De-

**<sup>10</sup>** C. Marconi, Selinunte. Le metope dell'Heraion (Modena 1994) 88–91. 155–157 nos. 14–15.

<sup>11</sup> Cf. esp. K. Fittschen – P. Zanker, Katalog der römischen Porträts in den Capitolinischen Museen und den anderen kommunalen Sammlungen der Stadt Rom III. Kaiserinnen- und Prinzessinnenbildnisse, Frauenporträts (Mainz 1983) 99–100 no. 145 pls. 173–174 (Rome, Museo Capitolino inv. 462); cf. also ibid. 83 no. 113 pls. 142–143 (Rome, Museo Capitolino inv. 469). On this technique see in general J.R. Crawford, Capita Desecta and Marble Coiffures, MemAmAc 1, 1915/1916, 103–119; K. Schauenburg, Perückenträgerin im Blattkelch, StädelJb N. F. 1, 1967, 54–58; Strocka (above n. 5) 118–119 note 16; Fittschen – Zanker (above n. 11) 105 note 105.

<sup>12</sup> A parallel for our statue would be offered by the akrolithic head in Malibu, J. Paul Getty Museum inv. 74.AA.33: G. Olbrich, Ein großgriechischer Akrolith im J. Paul Getty Museum, GettyMus J. 1977, 21–32; Häger-Weigel 1997, 18. 68–74. 166–182. 262–263 cat. no. 4 pls. 37,1–38,2. Häger-Weigel plausibly restores the back of

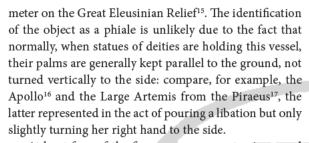
this head in wood. In the center of the back is a rectangular dowel

<sup>13</sup> A comparable indication of the hair in shallow relief above the forehead and the temples is visible on an akrolithic head from Cyrene at the British Museum (inv. 61 11-2787), dated to the 2nd century CE: R.M. Smith – E.A. Porcher, History of the Recent Discoveries at Cyrene (London 1864) 92 pl. 64; A.H. Smith, A Catalogue of Sculpture in the Department of Greek and Roman Antiquities. British Museum II (London 1900) 262 no. 1506 pl. 25 fig. 2; E. Paribeni, Volti, teste calve e parrucche, AttiMemMagnaGr n.s. II (1958) 64 no. 7 pl. 19 figs. 1–2; J. Huskinson, Roman Sculpture from Cyrenaica in the British Museum (London 1975) 66 no. 122 pl. 47; L. Beschi, Volti e acroliti cirenaici, in: M. Fano Santi (ed.), Studi di archeologia in onore di Gustavo Traversari, Archeologica 141 (Rome 2004) 86–87 figs. 9–10.

<sup>14</sup> As suggested by Giuliano 1993. Cf. below note 70.



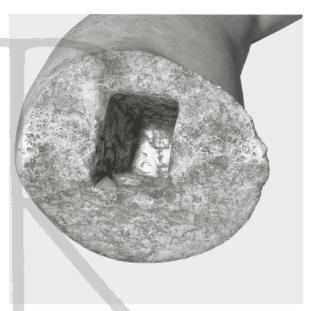
1 Goddess from Morgantina. Right Hand. Aidone, Museo Archeologico Regionale



At least four of the fingers were separate pieces and were joined to the right hand in antiquity (fig. 1). Mineralized iron pins are still in situ on the joining surfaces of the index finger and of the ring finger, and the corresponding holes are visible on the joining surfaces of the thumb and middle fingers. The joining surfaces are smooth and thoroughly executed, and the pinholes have been carefully centered. There is no pinhole corresponding to the little finger, which may or may not have been a separate piece. The joining of the fingers to the right hand could depend on limitations of the original marble block or it represents an ancient repair.

15 Athens, National Archaeological Museum inv. 126: L. Schneider, Das große Eleusinische Relief und seine Kopien, AntPl 12 (Berlin 1973) 103–122; Ridgway 1981, 138–141; Boardman 1985, 182 fig. 144; Beschi 1988, 875 no. 375 pl. 588; Güntner 1997, 962 no. 88; Rolley 1999, 157–160 fig. 141; Kaltsas 2002, 100–101 no. 180; K. Clinton – O. Palagia, The Boy in the Great Eleusinian Relief, AM 118, 2003, 263–280; Kreikenbom 2004, 214–215. 515 fig. 143, with further lit.

16 Piraeus, Museum inv. P 4645: J. Boardman, Greek Sculpture. The Archaic Period (London 1978) 85 fig. 150; LIMC II (1984) 239 no. 432 pl. 217 s. v. Apollon (W. Lambrinudakis et al.); G. Dontas, Ο χάλκινος Απόλλων του Πειραιά, in: H. Kyrieleis (ed.), Archaische und klassische griechische Plastik I (Mainz 1986) pls. 77–78; J. Floren, Die griechische Plastik I. Die geometrische und archaische Plastik,

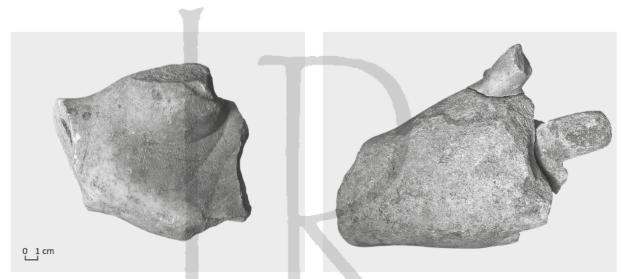


2 Goddess from Morgantina. Back of right arm with dowel hole

Of the right arm, the right hand, the forearm, and the beginning of the elbow are rendered in marble. The marble arm was attached to the limestone body at the elbow by a thick, rectangular dowel (fig. 2). This dowel was slotted into two sockets carved, respectively, into the backside of the marble arm and into the limestone body. A cross-pin running through the outer, proper right side of the forearm, helped to fasten this dowel and counter torsion. On the occasion of the conservation treatment of the statue at the Getty, the form and structure of the socket carved into the backside of the marble arm were carefully investigated. That investigation has suggested that a change to the position of the arm was made in antiquity. The arm was originally positioned roughly 90 degrees to the body and in a roughly straight projection from the body. The position of the arm after the change provided a more downward slope and inward angle to the body. This second position has been selected for the current reconstruction of the statue.

HdArch 5 (Munich 1987) 316 note 44 pl. 28, 4; Stewart 1990, 109 fig. 168; Rolley 1994, 398–399 fig. 431.

17 Piraeus, Museum inv. P 4647: G. Dontas, La grande Artémis du Pirée: une œuvre d'Euphranor, AntK 25, 1982, 15–34; D. Finn – C. Houser, Greek Monumental Bronze Sculpture (New York 1983) 62–65; LIMC II (1984) 638 no. 161 pl. 456 s. v. Artemis (L. Kahil); Stewart 1990, 179 fig. 569; L. Todisco, Scultura greca del IV secolo (Milan 1993) pl. 213; Boardman 1995, 71 fig. 47; B. S. Ridgway, Fourth-century Styles in Greek Sculpture (Madison 1997) 328; O. Palagia, Reflections on the Piraeus Bronzes, in: O. Palagia (ed.), Greek Offerings: Essays on Greek Art in Honour of John Boardman, Oxbow monograph 89 (Oxford 1997) 187–188 fig. 20; Rolley 1999, 286 fig. 292.



3-4 Goddess from Morgantina. Left hand and back of left hand with portions of the little and middle fingers reattached

The right arm, near the elbow, preserves a textile impression. The specific nature of this impression remains unknown, but it may be related to the use of some fabric to wrap up the marble arm after its modern discovery<sup>18</sup>.

The left arm is pulled back and bent at the elbow. The corresponding hand was extended forward with a slight downward slope. The forearm and hand of the left arm were rendered in marble. The forearm, now missing, was inserted into a circular socket carved into the limestone body at the elbow. The forearm was attached to the limestone body by a thick, rectangular dowel that was the same size as that used to attach the right forearm. This dowel was slotted, presumably, into two sockets carved, respectively, into the backside of the marble forearm and into the circular socket in the limestone body. This second socket is still partly preserved. The hole for a diagonal cross-pin running through the outer, proper left side of the forearm, is also partly preserved. The function of this cross-pin was to fasten the dowel into its socket and to prevent the marble forearm from falling out.

The largest fragment of the left hand (88.AA.76.2) preserves part of the wrist, the entire palm, and parts of the proximal phalanges of the thumb and index fingers (figs. 3–4). Two smaller fragments, which join with the rest of the hand but have not been reattached, consist of the proximal phalanx of the little finger (88.AA.76.4) and that of the middle finger (88.AA.76.3: rejoined from two

smaller fragments). These fragments indicate that the hand was neither clenched in a fist nor completely open (fig. 4). The thumb was held straight alongside the palm and the index finger, while the little finger was slightly pulled back. The hand may have held a thin object with the first four fingers, possibly a piece of drapery.

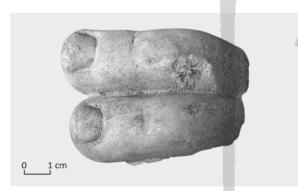
The right foot is flat on the ground. Only the front part of the foot, including the toes, is rendered in marble. The hem of the limestone chiton covers the rest of the foot, whose contours are visible through the cloth, on the proper right side. The join between the limestone body and the back of the marble foot is almost vertical, except for a modest sloping forward on the lateral, proper right side of the foot. The joining surface of the foot is worn and it does not preserve holes for pins or dowels: it was probably left rough, to facilitate the gluing of the marble foot to the limestone body. The sole was not polished, and shows the marks of a rasp.

There is some space between the marble right foot and the lower edge of the limestone body, which suggests that the statue originally wore sandals, whose soles were only a few centimeters thick. A narrow horizontal ridge seen in transparency behind the chiton, under the lateral malleolus, could be an indication of the back of that sole. The straps were presumably rendered with paint, since there is no indication of metal attachments.

Of the left foot, only the forepart was rendered in marble and glued to the limestone body. The only extant

18 Bell 2007, 20, who identifies our statue as Hera, has suggested that the textile impression is ancient, and should be understood as the remains of a belt of fabric held by the goddess in her extended right hand. Bell identifies this belt as the magic belt that Aphrodite presented to Hera as a gift in the Iliad (Iliad 14, 214, 219), and which Hera used to seduce Zeus on Mount Ida (Iliad 14, 292 ff.). Accord-

ingly, Bell suggests that our statue represents the epiphany of Hera before Zeus on Mount Ida. It may be noted, however, that the iconography of Hera extending the magic belt toward Zeus is not documented in ancient art (cf. Kossatz-Deissmann 1988, 683–685). In addition, the position of the fingers seems to exclude the possibility that the right hand of our statue held a small object like a belt.



5 Goddess from Morgantina. Fragment of left foot

fragment (88.AA.76.5) shows the index toe, the middle toe, and part of the depression between the middle toe and the fourth toe (fig. 5). This fragment confirms that the marble foot was raised at the heel and touched the ground only with the tips of the toes. Traces of blue are visible to the naked eye between the index and the middle toe. It is difficult to relate these traces of color to the straps of a sandal because of their position, which is neither between the big toe and the index toe, nor between the phalanx and the metatarsus, as one would expect.

The costume of our statue consists of a long-sleeved chiton and a himation<sup>19</sup>. A large part of the right sleeve of the chiton is broken away and the extant parts below the elbow and on the shoulder and upper arm are considerably worn. Still visible are some of the wavy lines radiating from the buttons of the sleeve, which are indicated by low ridges. The left sleeve of the chiton, on the shoulder and on the upper arm – where this cloth is not covered by the himation – is in a better state of preservation (fig. 6). A little round button holding the chiton is visible near the top of the upper arm. Delicate wavy lines, partly incised



6 Goddess from Morgantina. Left shoulder

and partly indicated by low ridges, radiate from this button. The other buttons on this side are worn, but the wavy lines radiating from two buttons originally located above the shoulder are still visible. These wavy lines are rendered with a series of ridges above the left breast.

In the area of the breasts, the drapery of the chiton is arranged in a series of narrow, tubular ridges with mod-

19 In the literature on our statue, there is little reference to its dress. Portale 2005, 91 has suggested that the goddess wears a chiton and himation while Bell 2007, 20 believes that the goddess is wearing a woolen peplos over a linen chiton, and a himation. This last combination is documented for late fifth-early fourth century sculpture (cf. e. g. the woman on the stele in New York, Metropolitan Museum of Art inv. 36.11.1, dated 400-390: G.M.A. Richter, Catalogue of Greek Sculptures in the Metropolitan Museum of Art (Cambridge, Mass. 1954) 54 no. 80 pl. 65; C.W. Clairmont, Classical Attic Tombstones, 9 Vols. (Kilchberg 1993-95) I, 437 no. 1.772; C.A. Picón et al., Art of the Classical World in the Metropolitan Museum of Art (New York 2007) fig. 151. In general, for the wearing of the chiton under the peplos in late fifth-early fourth century sculpture cf. M. Bieber, Griechische Kleidung (Berlin – Leipzig 1928) pl. 16.1; L. Jones Roccos, Athena from a House on the Areopagus, Hesperia 60, 1991, 401; L. Jones Roccos, Back-Mantle and Peplos: The Special Costume of Greek Maidens in 4th-Century Funerary and Votive Reliefs, Hesperia 69, 2000, 247-248). However, this combination of a woolen peplos over a linen chiton, and a himation should be excluded in the case of our statue for three main reasons. The first is the thinness of

the cloth, which is best seen at the overfold on both sides. The second is that on the left side, on the shoulder and on the upper arm, one does not see the sharp differentiation between the thick peplos and the thin chiton endymon that one would expect if the statue were wearing these two distinct pieces of cloth (in contrast to, for example, the girls on the southern side of the east side of the Parthenon frieze, who wear chitons under their peploi: cf. F. Brommer, Der Parthenonfries (Mainz 1977) pls. 168 and 170). The last reason is that on the left side, rather than the thick, lateral edge characteristic of a peplos, one sees a transition from the wavy lines radiating from the buttons of the sleeve to the drapery clinging to the left breast. I may add that in my opinion, the drapery seen on the front between the feet, along the lower edge of the statue, does not belong to an undergarment, but is part of the same cloth seen on the torso, on the lower left leg, and above the right foot. Near the right foot, this drapery consists of a small, compressed double-edged fold, and near the left foot the drapery consists of a bunch of small, crimped folds. Similarly crimped folds are seen on the back of the statue, along the lower edge, in correspondence to the left foot. In my opinion, these folds belong to the lower end of the chiton, and not to an undergarment.

erate projection (pls. 1-3. 8 a). These ridges form three catenaries between the breasts and long S-curves at their sides. In addition, a series of drapery ridges forms a long S-curve from the right side across the left breast. The ridges often show bifurcations, and they alternate, particularly on the front, with wide, shallow, flat-bottomed areas. In the area of the lower chest, the chiton clings more closely to the body. Above the right thigh, a series of six flat ridges curves slightly in the direction of the upper body framing the central area of the abdomen. In this area, the thin chiton clings to the body to the point of being almost fully transparent. The area around the navel is damaged, but the navel itself may have been indicated with a depression. The chiton has a long overfold, which reaches below the waist and overlaps the upper edge of the himation above the left thigh and on the proper right side20. On this side, three strongly projecting ridges separated by deep, flat-bottomed furrows characterize the surface of the overfold. Above the left thigh, the overfold of the chiton is so filmy, that it nearly merges with the himation beneath. Folds here are very thin and they are rendered with shallow ridges.

In the lower body, the contours of the back of the right foot and the lower left leg are visible through the chiton. On the lower left leg, up-curving folds characterize the rendering of the chiton. These folds are rendered with widely spaced tubular ridges rising vertically from shallow and smoothly worked intervals.

The himation, which covers a large part of the back of the statue, was originally pulled up over the neck and perhaps part of the head as well (pls. 1-7. 8 b. 9 a-b fig. 6)21. This portion of the cloth, which was originally added and attached by glue, is no longer in place, except for the raised edge on the back of the left shoulder. That the himation covered at least the lower portion of the neck is indicated by a piece of drapery carved in relief near the top of the right shoulder. This piece of drapery is clearly different from the sleeve of the chiton beneath, and it should be understood as belonging to the portion of the himation hanging down the neck on that side. The surface of the nape of the marble neck was worked rough by a rasp in its lower portion to create a rough surface to assist in the gluing of this limestone addition. Likewise, the horizontal pinhole noted on the proper right side of the

20 The Syon House-Munich type, which is thought to represent either Aphrodite or Persephone and whose prototype is dated to about 430–420 and generally attributed to Agorakritos, offers a good parallel for this detail of the overfold of the chiton overlapping the himation at both sides: Despinis 1971, 178–182; B. Vierneisel-Schlörb, Klassische Skulpturen des 5. und 4. Jahrhunderts v. Chr., Katalog der Skulpturen, Glyptothek München 2 (Munich 1979) 163–177 no. 15 figs. 74–79; E.B. Harrison, Two Pheidian Heads: Nike and Amazon, in: D. Kurtz – B. Sparkes (eds.), The Eye of Greece: Studies in the Art of Athens (Cambridge – New York 1982) 50; A. Delivorrias,



7 Marble Head from the East Metopes of the Heraion (Temple E) at Selinus. Palermo, Museo Archeologico Regionale »Antonino Salinas« Inv. 3926

nape of the neck may have assisted in fastening this addition. The fact that the neck is carved in the round would seem to speak against the idea that the head was fully covered by the himation.

The himation is folded double at the top in passing from the back to the proper right side, and it crosses the body on the front (pls. 1–5. 8 a. 9 c–d). On the proper left side, it remains unclear whether the himation was thrown over the left arm at the elbow, or whether it was held in place at the armpit by the lowered left arm. This side of the statue has suffered considerable damage and this part of the cloth has broken away.

Long S-curved drapery lines characterize the rendering of the himation. Echoing with their calligraphic swing the sweeping lines of the pose of the statue, they contribute to its effect of arrested motion (pls. 8 a. 9 d). On the proper right side, the S-curved lines behind the lower leg

Problèmes de conséquence méthodologique et d'ambiguïté iconographique, MEFRA 103, 1991, 145; C. Valeri, Marmora phlegraea: sculture dal Rione Terra di Pozzuoli (Rome 2005) 85–98 figs. 79–91. Cf. also the Leaning Aphrodite type, on which see below note 67. 21 Cf. Bieber (above n. 19) pl. 27,2–3. In the literature on the statue, it has often been remarked that the himation would have originally been pulled up over the head: cf. Acquisitions 1989, 110 no. 11; Boardman 1993, 135; Boardman 1995, 166; Handbook of the Antiquities Collection, J. Paul Getty Museum (Los Angeles 2002) 104; Bell 2007, 19–20.

convey the impression of wind-blown drapery. In comparison with the chiton beneath, the himation is treated as a heavier piece of fabric, and its carving is marked by sharp cuttings and strong plays of light and shade. On the upper back, the drapery of the himation is arranged in several thick, tubular ridges with narrow, shallow, intervening furrows. Some of these ridges bifurcate. In the areas of the left elbow and lower back the ridges are thicker and often strongly undercut. The intervening furrows have been given further depth by carving shallow grooves on their bottoms. In addition, several ridges have been re-furrowed and bifurcate. On the lower back, the drapery of the himation is characterized by four long folds that bend and widen towards the hem, ending in two large double-edged (so-called omega) folds right above the hem of the chiton. On the proper right side, great emphasis has been accorded by the sculptor to the folding up of the himation at the waist. Here, the drapery of the himation clings more closely to the body and it loses the arrangement in thick tubular ridges seen on the back. Narrow ridges, shallow in the middle and rising vertically towards the edges, characterize the rendering of the himation on this side, particularly in the upper, folded up part. A mannerism of our sculptor that is particularly noticeable in this area is his carving of shallow ridges re-furrowed and often bifurcating at both ends. Behind the right leg, the drapery forms a series of S-curves, which are separated by a deep, shell-like hollow. These motion lines end in a series of strongly projecting folds, two of which are double-edged. On the front, the contrast found on the proper right side between shallow ridges in the middle and ridges rising vertically towards the edges is further enhanced. On this side, there is also some emphasis on the bunching of the folds of the himation around the waist. Finally, on the proper left side, the drapery of the himation is characterized by a series of S-curved, compressed folds behind the leg (pl. 5). These folds are rendered through a series of narrow ridges and intervening furrows, which are in some places deeply undercut.

## Materials and Technique

The Goddess from Morgantina has been produced using the so-called pseudo-akrolithic technique. The clothed body is made from limestone. The exposed parts, namely the head, the forearms, and the foreparts of the feet, are made from marble. The attachment of the marble extremities to the limestone body was done with some difficulty. I have noted that the tenon of the head does not fit accurately into its socket. In addition, as we shall see, the left elbow was damaged during the carving of the circular socket and the dowel hole for attaching the forearm to the limestone body. On the previously mentioned chronologically earlier metopes of the temple of Hera at Selinus (460-450), which were produced using the same pseudo-akrolithic technique, the attachment of the marble parts appears to have been handled more successfully. During the conservation treatment of our statue at the Getty it was suggested that the irregular fit of the head may have been due to the marble parts having originally been used for another statue and later used for our sculpture. The recutting of the upper right section of the head may seem to lend further support to this suggestion. This

is, however, only one possibility. The irregularities could also have been caused by the sculpting of the marble parts by a different sculptor than the limestone body, or by a third, less competent person being put in charge of assembling the various pieces. It is also possible that the sculptor of the statue was simply not familiar with the pseudo-akrolithic technique.

The material of the body is a wackestone limestone, rich in micritic calcite and containing circa 30 % allochems, including foraminifiera and echinoid fragments. Petrographic analysis has concluded that this limestone was procured from the Early Miocene Irminio Member of the Ragusa Formation in the Hyblean Plateau of southeastern Sicily<sup>22</sup>.

The head, forearms, and foot segments are all made of the same white, medium to large grain marble. Isotopic analysis has concluded that the most probable provenance of the marble is Paros<sup>23</sup>.

As for the carving process, there are no traces of marks made by a point on the limestone body. Marks of both a claw chisel and of a flat chisel are visible on the less

**<sup>22</sup>** R. Alaimo – R. Giarrusso – G. Montana – P. Quinn, Petrographic and Micropaleontological Data in Support of a Sicilian Origin for the Statue of Aphrodite, in: Cult Statue of a Goddess. Summary of Proceedings from a Workshop Held at the Getty Villa May 9, 2007 (Los Angeles 2007) 23–28.

**<sup>23</sup>** The analysis was carried out by Dr. Stanley Margolis of the University of California at Davis and by The Getty Conservation Institute.

finished areas, especially between the folds and under the hanging segments of the drapery. On one of the unrestored drapery fragments (88.AA.139.35) are the cuttings produced by a knife or scraping blade (the width of the blade was circa 3-5 mm). This instrument was used for the carving of the drapery, and it has left other traces in the deep undercuttings between the folds of the statue. Another unrestored drapery fragment (88.AA.139.39) shows the marks of a gouge with a concave blade. There is no definitive evidence for the use of a drill to carve the drapery. The use of this tool was probably limited to the drilling of pinholes. Several rasp marks are visible on large part of the surface of the limestone body and on the unrestored drapery fragments. Rasps of varying size and fineness were used, sometime even in the same area (this is best seen on the unrestored drapery fragment 88. AA.139.60). The rasp appears to have been essential for the treatment of the final surface of the limestone body, which was not polished. This may be due to the particular nature of the limestone, which was a kind that would not accept polish. Not coincidentally, the same lack of polish and abundance of traces of the rasp is found on the surface of a draped female statue from Morgantina (225-200), which petrographic analysis has shown was carved in a limestone similar to that used for our statue<sup>24</sup>.

The exposed surface of the marble extremities was carefully polished. The top of the marble head was worked with both a point and a chisel to create a rough surface. A claw and a flat chisel were used for the recutting of the upper right edge of the head. The marks of a rasp are visible on the nape of the neck and on the sole of the right foot

The majority of the body was carved from a single block of limestone. There are, however, a number of portions that were separately carved and attached. These portions consist for the most part of sections of the drapery, added because of restrictions in the block size. A case in point is the portion of the himation pulled up over the neck and perhaps pulled over part of the head as well. This section of drapery was rendered in one piece, which extended from near the top of the right shoulder to near the top of the left shoulder. On the left side, this section was attached to the limestone statue by some glue along a smooth joining surface, which is partly preserved (pls. 6. 8 b fig. 6). Another portion that may have been added due to restrictions in the block size concerns the part of the himation immediately below the forearm on the proper left side. A smooth joining surface and a pinhole indicate that a portion of the edge of the himation was originally

attached. Likewise, a portion of the edge of the himation on the proper right side, immediately behind the leg, was attached, as indicated by the smooth joining surface (pl. 9 d). The situation is different for the left elbow, which was separately carved and attached along a smooth, vertical joining surface (pl. 9 a-b). This portion of the arm could be attached to the rest of the body only after placing the left marble forearm into position. It seems unlikely that the elbow was separately carved and attached to the body in order to help with the attachment of the marble forearm or in order to hide that connection. It is more likely that in the process of cutting into the limestone body to create the circular socket and the dowel hole for the forearm, the left elbow was damaged and a replacement was needed. This new section, corresponding to the elbow, was attached to the body using glue, a small rectangular dowel, and possibly the end section of the same dowel used to attach the marble forearm.

A small rectangular socket carved in the back of the left elbow may have been the result of the insertion of a limestone patch, now missing (pl. 9 b). This patch may have been used to mend a flaw in the stone or a mistake in the carving<sup>25</sup>. A hole against the edge of the himation immediately below the left shoulder may have served a similar function.

On the lower back of our statue, immediately above the edge of the himation, one sees a depression behind the left foot, and a hole (0.03 m in diameter, 0.05 m in depth) behind the right foot (pl. 6). The depression and the hole are 0.21 m apart. The hole is located at a height of 0.195 m from the lower edge of the statue. While the depression may simply be due to an accidental break, the hole on the right appears intentional and ancient. It may have served to secure a clamp or a pin, which was used to hold the statue to its base or, less likely, to anchor it to a wall or a niche behind.

The lack of polish of the final surface of the limestone body of our statue was compensated for by the application of paint, which not only contributed to the polychrome effect of the statue, but also served to hide the final tool marks.

Pink, blue, and two shades of red – a deep red and a bright red – are documented for the limestone body. X-ray diffraction, X-ray fluorescence and polarized light microscopy carried out at the Getty Conservation Institute have provided the following information about the pigments. Cinnabar (HgS mercuric sulphide) was used for the deep red. Hematite (Fe<sub>2</sub>O<sub>3</sub>) was probably used for the bright red. Cinnabar mixed with calcium carbonate

L'ellenismo e la tradizione ellenistica, in: Sikanie. Storia e civiltà della Sicilia greca (Milan 1985) 297 fig. 365; Alaimo et al. (above n. 22) 28.

25 Similar patches are well documented on the metopes of the Heraion at Selinus: cf. Marconi (above n. 10) 193.

**<sup>24</sup>** Aidone, Museo Archeologico Regionale inv. 56-1749: R. Stillwell – E. Sjöqvist, Excavations at Serra Orlando. Preliminary Report, AJA 61, 1957, 159 pl. 60 fig. 32; M. Bell, Morgantina Studies, 1. The Terracottas (Princeton 1981) 47 pl. 147 fig. 16; N. Bonacasa – E. Joly,