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An unfinished Achaemenid sculpture from Persepolis

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Summary During the conservation of an Achaemenid relief showing two grooms (British Museum 1825,0421.4: ME 118839) it was realized that the fragment had both a finished and an unfinished groom within the same carved panel. This relief is a fragment of part of the external façade of the north staircase of the monumental Apadana at Persepolis and dates from about 500–480 BC. A study of the carving marks on the finished and unfinished portions provided insights into the sequence in which the reliefs at Persepolis were carved and the tools used at each stage. The similarities and differences in the two figures illustrate the degree to which the individuality of the sculptor is evident in a scheme that was rigidly designed and laid out. The seemingly incomplete carving is also considered in the context of the vast scale of the carvings at the Apadana and the likelihood that the unfinished parts would have been masked, at least in part, by polychromy.

INTRODUCTION

Persepolis is one of the greatest sites of ancient Iran and was added to the Unesco list of World Heritage Sites in 1979. A great deal of research on Achaemenid stone-working and the sculptors and sculptures at the site has already been published by Nylander [1; pp. 22–72, 2], Tilia [3, 4] and Roaf [5] from the 1960s. The purpose of this contribution is to present a technical study of a partially completed sculpture in the British Museum collections and to compare these results with the observations of others made at the site. At the time of writing, the sculpture considered here forms part of the display in the Rahim Irvani Gallery for Ancient Iran, which opened in June 2007.

HISTORY

Sculpture 1825,0421.4 (ME 118839) is an Achaemenid relief showing two grooms that was found at Persepolis during excavations carried out in 1811 by Sir Gore Ouseley's mission to the Court of Persia, and was probably discovered during April or May of that year when his secretary James Morier initiated digging and "brought to light several beautiful sculptures" [6; p. 238]. It was published in illustration soon after its discovery by his elder brother, Sir William Ouseley [6; Plate XLVI (bottom centre)] and was presented by Sir Gore Ouseley to the British Museum in 1825 along

with three other sculptures. It was placed on display shortly afterwards in one of the west-facing recesses along the east wall of the Grand Central Saloon, immediately adjacent to the present doorway from the Great Court opposite the Rosetta Stone [7; p. 176]. The adjacent recesses were used to exhibit nine other sculptures from the same site that had been presented by the Earl of Aberdeen in 1818 and Sir Gore Ouseley in 1825. These recesses also displayed an early series of Persepolis casts that had been made in c.1825 by the British East India Company Resident in Bushehr, Lieutenant-Colonel Ephraim Gerrish Stannus, which had been presented to the British Museum in 1827 by his superior officer and Governor of Bombay, Mountstuart Elphinstone [8]. These pieces all remained here until a reorganization of the displays in 1865, after which they were redisplayed first at the west end of the Assyrian Transept (where the Balawat Gates are currently exhibited [9; p. 80]), and later in the refurbished upper gallery dedicated to ancient Iran.

The sculpture of the two grooms is well known in the modern literature connected with antiquarian researches at Persepolis and the early development of collections from ancient Iran in the British Museum [10; p. 60; Plates XV.1 and XVIII.2 (No. 1), 11; p. 52 and Plate XXIIe, 12; p. 69; Cat. 23]. Barnett was the first to reconstruct its original position by comparison with the more completely preserved east stairway of the Apadana and proved that it belonged to the uppermost register on the east wing of the north stairway of this building [10]. These two grooms were, therefore, part of a procession of grooms either carrying saddle cloths (as



FIGURE 1. Two grooms relief (British Museum 1825,0421.4: ME 118839)

here) or escorting horses and followed by two charioteers, and accompanied by ushers and guards.

Construction of the Apadana was initiated by Darius I (reigned 522–486 BC), probably in the early fifth century BC, and completed by his son and successor Xerxes I (reigned 486–465 BC); it remained an important integral part of the complex until the destruction of Persepolis by Alexander in 330 BC. The destruction of the wooden ceiling must have precipitated the collapse soon afterwards of the high mudbrick walls that framed this monumental columned hall, and this process buried the lowermost two-thirds of the north stairway and adjacent façade and entirely covered the equivalent east stairway. The latter was only revealed during excavations by the Oriental Institute, Chicago in the early 1930s, but the uncovering of the north stairway occurred over a longer period, beginning in the early nineteenth century [13].

The first records of the north stairway were published in the eighteenth century [14]. They prove that by this period the faces of the second register were already exposed and were not only rather weathered but also showed clear traces of systematic iconoclasm; furthermore, there were no *in situ* remains of the top register, which, unlike the lower sections of the terrace, had been constructed as a free-standing – and therefore proportionally more vulnerable – parapet. Most of the north façade was then cleared down to the waist level of the third register by the second quarter of the nineteenth century. It was during this activity that many fragments belonging to the uppermost register were recovered, but the lowermost section was only finally excavated in the 1930s when Schmidt refers to “the removal of a strip

of unsightly debris along the northern front of the Apadana” [15; p. 70]. Further fragments from this section were found during Schmidt’s excavations, together with glazed bricks deriving from the north east tower of the Apadana. These suggest that it was the collapse of the high mudbrick structure behind it that had brought down the parapet and thus created the local stratigraphy [15; pp. 70–71 and Figure 22, 16; Figure 16].

Closer visual examination of this stretch of façade confirms that there are three distinct zones of weathering. The uppermost corresponds to the weathered section of Ker Porter’s illustrations [17]. Below this there is a central and less weathered portion, and along the bottom a paler unweathered section that corresponds to the strip cleared by Schmidt. The uppermost section was never buried and its erosion reflects the passage of some two and a half millennia, whereas the central zone was first exposed during excavations carried out in 1811 by Sir Gore Ouseley’s mission and continued in July the same year by his attaché, Robert Gordon [18]. These differential horizontal weathering lines illustrate one of the major challenges to the present-day preservation of the *in situ* sculptures at the site and provide a useful dated timeline of the process of decay [19].

DISCUSSION: THE RELIEF

The fragment showing the two grooms currently measures 45 cm high, 78 cm across and is 12 cm deep: it weighs approximately 60 kg, Figure 1. One face is carved to repre-

sent the upper portions of a pair of grooms walking to the right and holding saddlecloths and whips. They are depicted in so-called 'Median dress' of a rounded cap and a knee-length belted tunic worn over trousers. There is a roughly vertical line running between the two figures, to the left of which the details are finished, whereas to the right only the outlines have been 'roughed out'. The line running between these two figures perhaps refers to a predetermined point of division between two sets of craftsmen.

The relief in question came to the Museum's stone conservation studios for conservation prior to its display in the 2005 temporary exhibition *Forgotten Empire* [12]. It was during this period of conservation that the opportunity arose to examine the relief in detail and to explore the techniques used in its carving. As well as important details concerning its execution, this also revealed that part of the carved sculpture was never completed. This phenomenon is not uncommon and at Persepolis unfinished areas of carving to the sculptures have been thoroughly documented [3]. However, the opportunity presented by this sculpture in the British Museum was for both curator and conservator to work together to examine the carving in close detail and document it meticulously.

The initial observation was a 'step' in the stone that divides the two grooms: this runs in a vertical line bisecting the figures; it has a depth of approximately 1 mm (and possibly more in some areas of the unfinished carving), Figure 2. The unfinished groom is located on the proper left side of the relief and the finished groom on the proper right. Further examination of the panel highlighted how the unfinished groom was part of an earlier phase of the carving that would finally produce the finished groom, Figures 3–6.



FIGURE 2. Detail of the 'step' in the stone indicating the division between the finished and unfinished grooms

A detailed study of the distribution of mason's marks along the different sculptures *in situ* indicates the organization of the workforce into separate teams, that different sections were carved simultaneously and that the same teams worked on both stairways at the Apadana [5; p. 64]. The team of carvers would remove the bulk material and rough out the shape of the figures, leaving the master carver to finish the important details such as the heads. It is also known that these teams left a reference to their work by scribing a mason's mark (a carved symbol or shape identifying the sculptor or carver) on the surface of the relief. This was not only a form of signature to their achievements as it additionally indicated where one team would follow on from another. However, the present relief lacks any mason's mark that might attribute it to a particular team or sculptor.

The stone used to construct Persepolis was sourced from local quarries close to the site, a pale grey limestone



FIGURE 3. The unfinished groom



FIGURE 4. The finished groom



FIGURE 5. The unfinished arm of the right groom



FIGURE 6. The finished arm of the left groom

from the Middle Cretaceous period and another darker grey denser limestone from the Upper Cretaceous period [3; p. 76]. Limestone fresh from the quarry is known as 'green', a terminology that has a parallel in fresh sapwood from a tree. When stone is first removed from the ground it retains more moisture within its structure and is thus easier to carve; as the stone matures and is exposed to the elements it becomes much harder and develops a patina, making it more difficult to carve.

Typical practice in preparing to carve a block of stone is to map the desired design onto the surface; at Persepolis it is thought that this task was carried out by a designer [1; p. 33, 3; p. 83]. Following a design of the figures and patterns set out and planned by the designer, a team of stone carvers would begin working on a section of the panel. So that each mason would have the space to work comfortably and uninhibited by neighbouring colleagues, it was necessary to carve the figures out of sequence. The selection of tool was governed by the depth of material to be removed and at Persepolis teams of carvers were employed to remove the bulk material; for this they would select and use either a point or punch. Following this process, a tool referred to as a claw chisel or toothed hammer would be employed to even out the surface to a roughly textured level. It was only after this stage that flat chisels of various diameters were used to give a smooth finish [1; p. 33, 5; p. 3]. In essence these techniques are still applicable today.

In the case of the British Museum relief, a wide, flat chisel or hammer has been used to rough out the unfinished groom. It was at this final stage of the work that the master carver or sculptor would have taken over using fine, flat chisels to carve the facial features and details of the relief. The desired smooth surface was attained by using a variety of methods and may have been achieved by polishing with an abrasive or stones [1; p. 32, 3; p. 83].

Some of these techniques can be seen on sculpture 118839, including the roughing out of the proper left figure (Figure 5); this phase of carving is described in



FIGURE 7. Detail of the chisel marks to surface of unfinished groom

depth by Tilia [3; p. 91]. The chisel marks on the unfinished surface are wide, flat and appear haphazard in their application. The upper proper left corner of the fragment shows evidence of a fine-toothed tool, possibly a hammer chisel, Figure 7 [3; p. 91]; the configuration of these tooth indents to the surface indicates a tapping action, striking the stone with a hammer at an obtuse angle. This would discount a claw chisel having been used to chase away the excess material, as a series of parallel 'tram lines' would then be evident. To the lower proper left edge there is an area of tool marks indicating the use of a point; the gouges in the stone here are long and parallel, the exact pattern left by a tool removing bulk material, Figure 8. The tool used to complete the facial features and details of the finished groom appears to be a small, fine chisel, and this tool has also been used to emphasize the outline of the details to the face and figure, Figures 4 and 6. The practice of cutting into the planes of the background was used to emphasize depth through creation of a shadow line. This

is commonplace in the execution of sculpted wall reliefs, and must have been particularly effective when these were placed in an external setting where bright sunlight cast strong shadows.

In exploring the finished groom it is worth examining details such as the precisely carved spiral curls that appear in neat, uniform diagonal rows. In comparison, on the unfinished groom a number of the curls have been set out in a blocked section by carving neat raised roundels that show the phase prior to completion, Figure 3. An additional contrast between the two figures can be found in the belt. The carving of the belt on the unfinished groom has been left incomplete in a manner that suggests some interruption in the process, Figures 7 and 9; Figure 6 shows the completed belt on the finished groom.

It is interesting to observe that although the stone carvers at Persepolis adhered rigidly to the designs that had been set out for the reliefs, there were still opportunities to apply their own touches and interpretations to the figures. In studying the Apadana reliefs these subtle differences can be seen in details such as the facial features and the hairstyles.

Finally, it might be added that the thickness of this relief is not original but reflects a deliberate attempt to thin the sculpture, probably for transport from the site in the nineteenth century. The same is true of other fallen sculptures removed from the site during this period [18; p. 49]. There is a vertical crack through the leading figure that had previously been crudely reinforced on the reverse, again probably in the nineteenth century, using a lead strip, brick fragments and plaster. There had also been extensive previous overpainting across the face, apparently to render the background similar to other fragments covered with iron staining and lichen. This overpainting continued across earlier lettering that commemorated the gift of this relief by Sir Gore Ouseley and, therefore, presumably derives from a later phase of display, perhaps in the 1930s. Some additional traces of light blue paint noted along the bottom edge are thought to derive from an earlier refurbishment of the galleries. Such traces are by no means uncommon on sculptures that have been on frequent display and, while they offer a glimpse into changing fashions and colour schemes within museums, they also illustrate the need for caution when attempting to interpret the original polychromy on sculptures [20].

CONCLUSIONS

The unfinished reliefs found at Persepolis are challenging and there are many scenarios to explain why the carvings remained incomplete. The simple answer may lie in the vastness of the site and the magnitude of the task of its construction; within the scale of Persepolis, these unfinished details would have been a minor element in the overall scheme, particularly as paint was extensively



FIGURE 8. Detail showing the use of a point chisel to rough out the surface of the stone



FIGURE 9. Detail of the incomplete belt of the unfinished groom

applied to the sculptures and would, therefore, have concealed missing carved details [4, 21, 22]. It is in its isolation from Persepolis that the irregularities in the sculpture of the two grooms have become apparent, highlighting the various phases of carving. The finished groom has been completed to a polished quality, the unfinished groom displays at least three or four stages in the execution of the carving: initial roughing out with a point; levelling of areas of the background with a toothed hammer; shaping of the groom with a flat tool; and finally carving the detail with a fine chisel. What has become clear in studying the information offered by the reliefs of the Apadana is that the sculptors were not of equal ability or dexterity and that the standard of carving is varied, yet this has not detracted from the overall vision left by the sculptors at Persepolis. It is not simply a matter of unfinished and finished areas, but also that within this enormous project there is a human element that manifests itself in the unfinished reliefs.

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