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The Colossi from the Early Shrine at Coptos in Egypt

Barry Kemp
(with the assistance of Andrew Boyce
and a geological report on the stone by James Harrell)

For more than a hundred years the three colossal limestone figures from Coptos have challenged anyone wishing to write on the development of culture and society in early Egypt. Beginning from a fuller documentation of the three, a reconstruction of their original context is proposed, namely, an array of standing stones, a type of sacred structure of which a growing number of examples are known in the region. A study of the signs carved on their sides answers recent speculations that they record the names of early kings. Both the colossi and the system of symbols to which the signs belong represent a culture which, in consequence of a thoroughgoing ancient process of redefinition, was subsequently overlaid by the significantly different culture of Pharaonic Egypt.

A century ago, in the winter of 1893/4, pieces from three male limestone colossi were discovered by Flinders Petrie whilst excavating at the southern Egyptian temple site of Coptos. They had been carved in a style which was, in his own words, 'quite apart from anything known in Egyptian work' (Petrie 1896, 7; cf. Adams 1997). Petrie's readers, however, were spared the full impact of his discovery. On each of the three, a giant hand grasped at its root a colossal erect penis, something emphasized by the simplified shape of the colossi and the loss of the heads and lower legs. Petrie refrained from illustrating them, conveying their essential form to his readers with the coded statement: 'The left hand is in the usual attitude of Min', a reference to the, by then well-known, ithyphallic creator god of Coptos.

In the division of finds at the end of the digging season the Egyptian Museum in Cairo took one of the colossi; the remaining two, together with a head, Petrie donated to the Ashmolean Museum, Oxford. In time, photographs of the Ashmolean colossi appeared in sundry texts on early art in Egypt. Generally, though not universally, Petrie's presumption for a prehistoric date has been accepted, though not his fanciful identity of their makers, members of a foreign colony, perhaps from the land of Punt, residing for a long time at Coptos. In recent years the colossi have deservedly begun to attract more attention. A catalogue of early Egyptian material in the Ashmolean Museum has included a set of photographs of their two torsos and head (Payne 1993; other recent photographs are in Williams 1988 & Dreyer 1995). On the Cairo piece a number of carved or scratched motifs have been read by Bruce Williams (1988) as an actual early royal name, that of King Narmer from the beginning of the First Dynasty (*c.* 3050 BC). This surprising discovery, now regularly quoted, has seemed to place the dating of the colossi on much firmer ground than that provided by considerations of art history and technique of manufacture. It has also been developed further with the argument that other signs can also be read as royal names, to provide a veritable king list for a period prior to the First Dynasty (Dreyer 1995; 1998, where photographs of the Cairo colossus are also given, Taf. 43 & 44). Even so, without scale drawings it remains difficult to study the colossi as a group. Moreover, the copies of marks used by Williams to support his apparent breakthrough in dating are open to question, as is the whole king-list theory.

The initial intention was to put their study on a more secure basis by publishing a set of scale draw-

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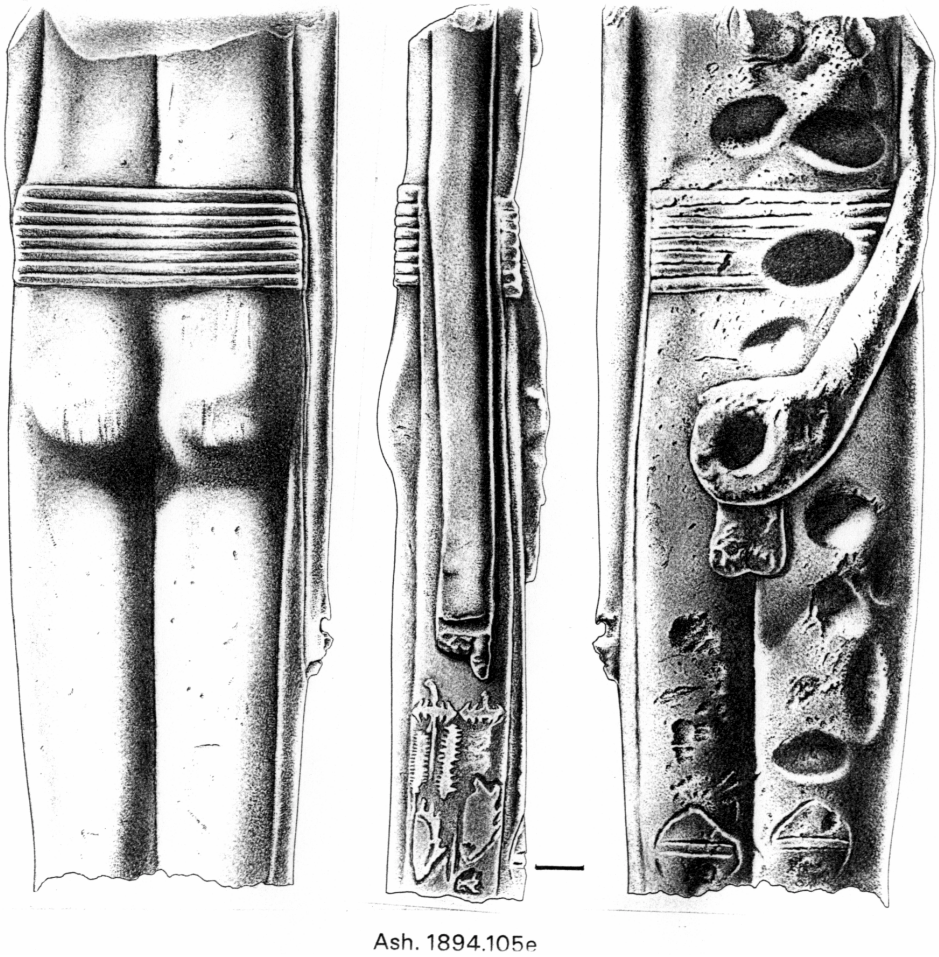


Figure 1. *Drawings of the Ashmolean colossus 1894.105e (Boyce). The scale bar represents a length of 10 cm.*

ings, made by Boyce (assisted by Fran Weatherhead) during a number of widely spaced visits to both the Egyptian Museum, Cairo and the Ashmolean Museum, Oxford. The descriptive part of the text also owes much to Boyce. From this exercise has developed a commentary on their significance as monuments of exaggerated scale and as encoders of meaning from a society which became an antecedent to Pharaonic Egypt yet supported, in its time, a set of cultural and intellectual achievements of a distinctive kind which deserve to be studied as something other than a mere formative stage of what was to come.

The size, complex surfaces, and (in the case of the Cairo colossus) conditions of museum display make any detailed visual rendering difficult. For the drawings, Boyce has used a pencil technique which aims to record the shapes of the sculptures and a range of surface features, but in a way that reduces the impact of the surface degradation which plays such a large part in the first impressions one has on seeing them (impressions which considerably undervalue their original quality as sculptures). It incorporates false or composite lighting to some extent. The fine photographs of the Ashmolean figures published in recent years made further photographic reproduction unnecessary. We have, however, included a photograph of the Cairo colossus (Fig. 4). In 1997 the Ashmolean Museum remounted the colossi in a new display which deservedly makes them a centre of attention and also much easier to see as a group (Kirby 1998). At the same time, a detailed study was made of the stone from which they and a number of related pieces were carved, by geologist James Harrell. He has kindly provided an appendixed report on his findings, which draws on his field research in Egypt.

The Ashmolean pieces all bear the same museum inventory number: 1894.105. Each piece is distinguished by a following lower-case letter: 105c, 105d, and 105e.

Documentation (by Boyce & Kemp)

Material and technique

The material is a distinctive limestone which, as Harrell's report documents, was also used for a colossal statue of a bird and for one of the lions from Petrie's same excavation at Coptos, as well as for a large standing figure from Hierakonpolis, all of them part of the Ashmolean collection. In our own opinion the Cairo colossus is another example, and the two Coptos lions in the Petrie Museum, University College London seem to be two more (see Appendix, and cf. Adams & Jaeschke 1984, 10–11, 18–19). Petrie also found a large-scale penis (20 cm long) carved separately from stone, which likewise passed

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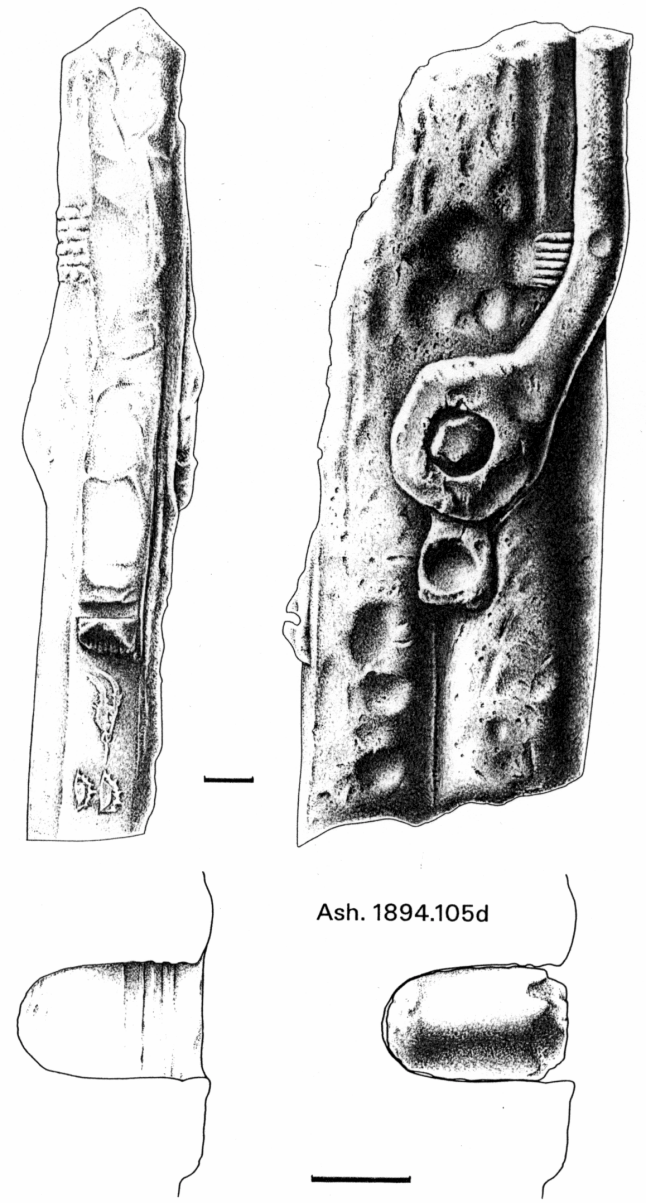


Figure 2. *Drawings of the Ashmolean colossus 1894.105d (Boyce). The scale bars represent a length of 10 cm.*

to the Ashmolean Museum (105f.; Payne 1993, pl. V). It is made from a fine-grained limestone which is different not only from the bodies of the colossi, but also from the stump of a penis which still remains in one of them (105d) and the material of which resembles that of the colossi themselves. It may not, therefore, have belonged to any of the three, but to one of which no other pieces survive and possibly of a different date altogether; it could even have been a votive piece on its own, not attached to a statue at all. It is not considered further here (and is not on

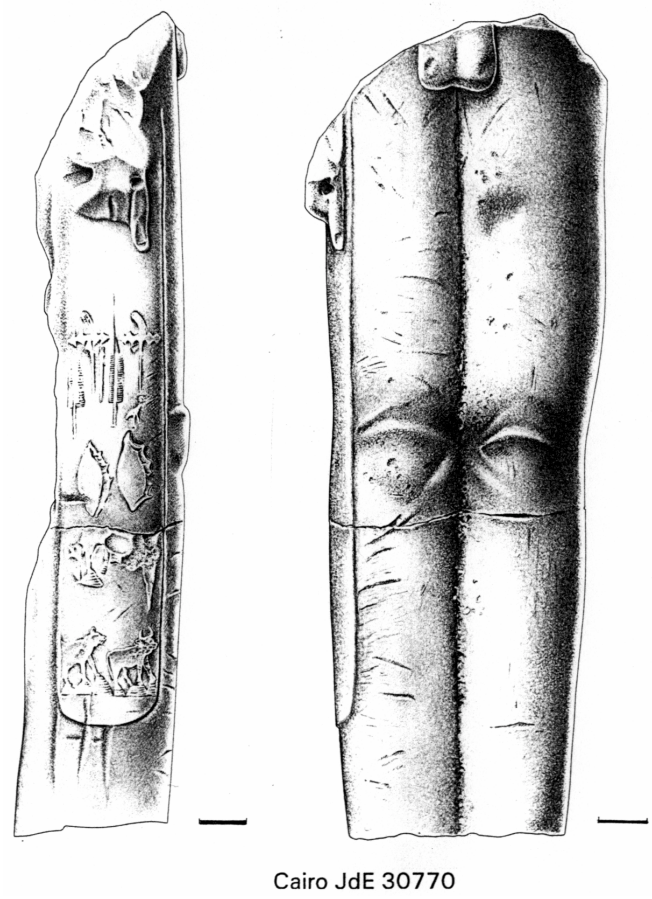


Figure 3. *Drawings of the Cairo colossus (Boyce). The scale bars represent a length of 10 cm.*

display in the Ashmolean).

Petrie observed (1896, 7) that the colossi had been made by hammering: 'an entirely different style or styles of stone-carving, quite apart from anything known in Egyptian work. The forming of these figures is entirely done by hammer-work, without any trace of chiselling or of metal tools'. The 'hammering' continues to be cited as a distinctive technique (e.g. Fischer 1980, 737; Williams 1988, 36, 37; Davis 1989, 172; Phillips 1995, 70, cat. 1.23, by Eaton-Krauss).

For the most part the surfaces of the colossi have either been lost or have been carefully smoothed so that it is not possible to tell how they were worked. Nonetheless, on all three the division between the legs has been emphasized by a line of circular holes. They are particularly prominent on the front of the Cairo colossus (Fig. 4). A metal point, hammered or twisted into the stone, would seem a likely instrument, or possibly a rotated narrow flint drill-bit. Where the use of percussion is definite is in the areas surrounding the petroglyphs on the side panels. The

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Figure 4. *Photograph of the Cairo colossus with (inset) a close-up of the area around the knees (Owen).*

history of transition from the use of hammer to chisel is inevitably not that well-documented in Egypt because final smoothing has usually obliterated tool marks from shaping. Part of a limestone lintel of the mid-1st Dynasty from a tomb at Saqqara, decorated with a procession of crouching lions in high relief, had been executed (according to the excavator: Emery 1958, 84, pl. 96b) by hammering and not by chisel.

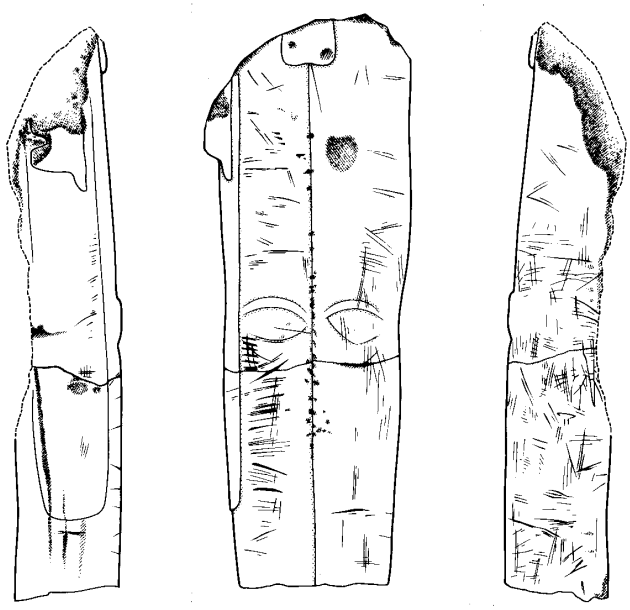


Figure 5. *Drawing of the Cairo colossus, showing the pattern of secondary marks (Boyce).*

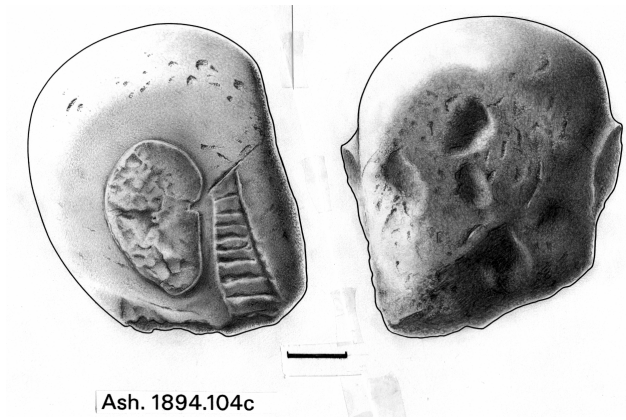


Figure 6. *Drawings of the Ashmolean colossal head 1894.105c (Boyce).*

The same is true for the unfinished statues of Menkaura of the 4th Dynasty, two of which are said (with a query) to have been of hard limestone (Reisner 1931, 108–18 & nos. 33, 52). In the case of two large unfinished limestone statues of Djoser at the Step Pyramid, however, an initial shaping by hammering had been followed up by finer work with a narrow chisel (Devaux 1998). The evidence for the use of a hammered or rotated point in dividing the legs on the Coptos colossi suggests that here, too, a hybrid technology was employed. It is not a means of assigning a particularly close date of manufacture.

In recent discussions the carving of the petro-

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glyph panels has attracted particular attention (Fig. 7). People claim to see evidence that the signs were not all carved at the same time, but contain a history of addition and replacement. Our view is that this is a case of over-interpretation. Before the carving of the petroglyphs was begun the convex surface of the band or sash was given a smooth finish. The signs were first outlined by chipping away a band of adjacent stone surface around each one, creating a sharp edge along the signs themselves but a shallow and poorly defined boundary away from them. Some modelling or incision of lines was added inside the signs. The sculptors then began to remove further areas of surface between signs, but to an inconsistent degree. This inconsistency of finish can create the impression of two styles (and thus 'periods') of carving, one approximating to true relief and the other to a crude sunk relief. Yet both styles intermingle across the whole panels and so fail to distinguish clearly the signs that might be considered additions. Our impression is that the carvings on the panels probably represent in each case a single phase of work and a single scheme of decoration, but one that was left unfinished. A particularly good example is the 'lion' on Ashmolean 105e, which is pecked out to be what looks at first like a crude afterthought, but is likely to be part of the original composition since the position of the shell above it has allowed for the space that the 'lion' occupies (and this has affected the length of pole on the Min-standard above), whilst the shell to the left descends further. If, in carving the 'lion', the right-hand shell had been cut back and made smaller, the surviving surface would have been bound to preserve traces of its original outline. The 'lion' stands out because the removal of the surrounding stone has not been finished. Moreover, the right edges of the right-hand shell and the right-hand Min-emblem look as though they were left in the same condition, although the surface is weathered. The signs 'read' from right to left, but a carver who was not the designer need not have completed his work in the same order and it is possible that he worked from left to right, but stopped before reaching the right-hand edge. The smaller scale of the 'lion' matches that of the bird on the Cairo colossus (which stands above rather than below the right-hand shell): both represent the same 'grammatical' element, a point taken up in a later section and illustrated in Figure 14.

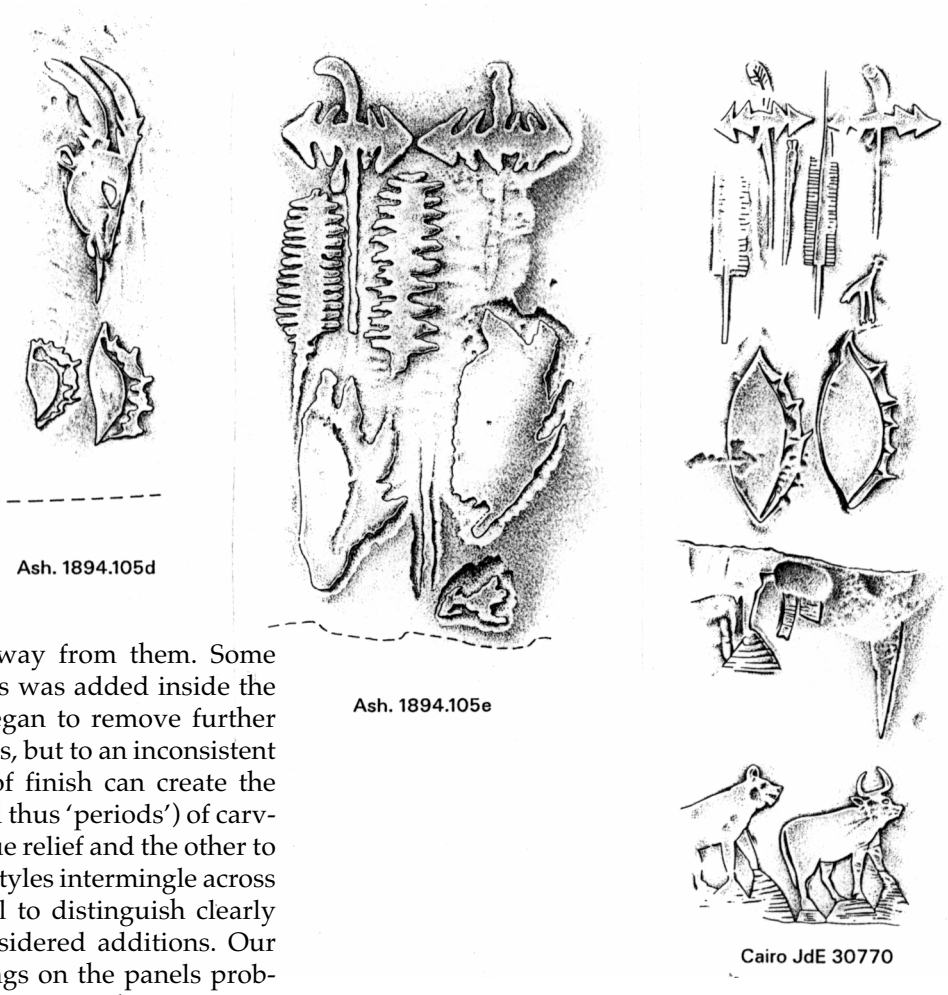


Figure 7. *The petroglyph panels compared (Boyce).*

In the following notes Ashmolean 1894.105e is presented before 1894.105d on account of its better preservation.

Ashmolean 1894.105e (Fig. 1)

Degree of preservation: from the mid-chest to just below the knees.

Dimensions: height: 193 cm; width (front): 72 cm; width (side): 36.5 cm. Phallus socket diameter: 12.4 cm; its depth: 8.8 cm.

Body proportions and modelling
The body was very slightly tapered inwards towards the waist. When seen from the side, the thighs originally might have gently swelled out, but this has been largely lost through subsequent abrasion of the surface. In the side view, the line of the body does

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not follow quite the same plane, but angles inwards by a small amount at the sash. At the knees, to judge from the short length of lower leg remaining, the plane followed the same change of angle as did the Cairo colossus, so returning to the plane of the upper part of the body. The result would have been to give a slightly hollow-chested appearance to the torso.

Front. At the centre of the top edge the stone swells outwards to mark the beginning of a beard. What remains suggests that it ended squared off with curving corners, and its shape would have therefore been much less pointed than is the case with the McGregor statue's beard (Fig. 8). Across the midriff runs a belt or waist-band of eight sections indicated by grooves cut by a relatively sharp instrument into a raised strip of stone. The right arm is one of the best-preserved parts. It hangs almost straight down, with a slight change of angle and contraction to represent the joint, at the back of which a faint bulge defines the position of the elbow. The upper part of the arm has an almost cylindrical section. The muscle, although unnaturally elongated, curves inwards slightly and smoothly to the crook of the arm; the section of the elongated forearm has a slightly flattened outer surface, the muscle being lightly modelled. The wrist-bone is indicated by means of a distinct swelling. Of the right hand, with fingers closed into a fist with the thumb pointing down, the knuckle area has been broken away but enough is preserved to show that the fingers had been individually separated and, to judge from the thumb (which is better preserved), so also had been the nails. A deep wedge-shaped notch cut into the thumb is presumably later damage. The hole pierced through the hand, to receive an inserted rod or stick (the handle of a flail?), is a slightly flaring near-cylinder, 2.35 cm in diameter at the back, 2.7 at the front. The working-marks in the interior have been smoothed away. The upper part of the left arm runs straight down against the body and shows slight modelling of the elbow. The forearm bends unnaturally as it follows the curvature of the body. The left hand has become, through damage, a roughly-shaped raised rim around the circular phallus socket. The top of this rim extends out a short way towards the figure's right side, representing the thumb, held straight. It is possible that stylized fingers were indicated around the socket but this is now hard to judge. Of the socket itself, with a depth of 8–9 cm, the inner wall is rounded at the rear. The surface of the scrotum has been chipped, but, towards the top, where it meets the fingers, some of the original surface is left. Its appearance suggests that originally the surface of the scrotum must have been virtually flat. The right testicle hangs a little lower than the left. This is the only one of the three colossi which preserves the top of the sash which falls down the right side, seemingly emerging from the top of the waist band. As it descends it closely hugs the contours of the leg, wrapping itself around the calf and so absorbing part of its thickness and emphasizing the asymmetry which arises from the placement of the division between the legs to the left of centre. The kneecaps are indicated by a swelling in the volume of the stone and by broad grooves of rounded section which create lozenge shapes with a horizontal division of two parallel lines. The left kneecap is higher than the right.

Back. The rear of the figure retains a smooth surface which captures the restrained modelling of the body: above the belt almost flat panels on either side of a groove which marks the position of the spine; below the belt a hollow to indicate the 'small' of the back, and buttocks very shallowly convex (the slight flattening of the crowns is probably the result of dragging, for they bear fairly pronounced linear abrasions). Across it runs the eight-stranded belt, following its own slightly convex course, its strands sharply defined.

Surfaces: manufacture and subsequent history
The front and back differ, the zone of difference running vertically and in front of the statue's right arm. The back surface is matt, has a fresh appearance, and the granular texture of the limestone is very apparent, as if a slight degree of natural wind-abrasion has taken place. It bears fine shallow scratches, with blurred edges, which could be from the final smoothing of the surface with a stone rubber. Some groups of more pronounced horizontal scratches might be abrasions from dragging the colossus over the ground. The front surface has a darker, browny colour, and a polish which extends over the original surfaces and the subsequent hollows, implying that it is a patina from long exposure to weathering. The different surface appearances of front and back merge into one another except on part of the right side where a sharper boundary occurs where dampness has caused the surface to disintegrate.

Front. The area below the left forearm and on the wrist and hand is chipped; there is a slightly battered area on the left leg and a small part of the original smoothed surface has been lost. The surface of the rim around the phallus and the surface of the scrotum are extensively chipped.

On the chest two large oval depressions or cup-marks have been ground into the surface. They have smoothed polished surfaces and seem to have been formed by an abrading or grinding action. The action which formed the right depression had extended shallowly on to the belt. A further shallower oval depression has been formed in the belt itself, and again the action which formed it has worn away the belt detail in the area to the left. A fourth and smaller depression lies below the belt, five more on the front surface of the left upper leg, and a small one each above and below the kneecap of the right leg (although the latter has a rough interior; it is not smoothed like the others).

Above both knees and in the groove between the legs a little lower down are three patches where holes have been filled with plaster plugs which have been smeared over the surrounding stone. These repairs are modern and are part of an earlier installation in the museum, in which three copper dowels were inserted from the bottom and secured with lead bedding. The surplus plaster has since been removed.

Back. The legs are separated by a channel marked by a discontinuous line of generally circular depressions, which were not subsequently smoothed away, mostly just below the buttocks but also lower down and on average 0.8 cm in diameter. Hammering with a sharply pointed tool is a likely technique, but drilling cannot be excluded.

The petroglyphs (Fig. 7)
The condition of the surface and the nature of the original finish vary considerably across the surface. At the top comes a pair of Min-standards (McFarlane 1995, 162–5) and branched poles (variously interpreted as trees, plants and swordfish-saws: Dreyer 1995, 51; 1998, 175), the pole of the right-hand standard having been largely lost through decay of the stone. Below comes a pair of *Lambis truncata* (formerly *Pteroceras*) shells of Red-Sea habitat (Dreyer 1998, 59) and a couchant quadruped (lion or dog). Between the two shells is a long narrow vertical pole which erosion has affected towards the top. Whilst it is possible that it represents an unfinished attempt by the carver to remove unwanted surface stone, it might also be the same as the long slightly tapering object (a serpent?) which appears in the upper row on the Cairo colossus. The discernible differences in the carving of the signs can be seen as evidence for sequential carving over a period of time, and even that an earlier design was present, now represented by the vertical bar between the two shells. It is possi-

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ble that more than one craftsman has been at work, but our view is that all the signs belong to a unitary composition and were put in place at more or less the same time, but that the carver or carvers left their work unfinished along the right margin. It should be noted that Petrie's paper squeeze of the surface, which formed the basis of the professional engraving which was also used to illustrate the excavation report, had not been pressed into the 'lion' and the surface thus appears blank at this point. It appears in the catalogue photograph (Payne 1993, pl. IV) and its presence is noted by Dreyer (1995, 51; 1998, 141, 176–7, Abb. 104).

Ashmolean 1894.105d (Fig. 2)

Degree of preservation: from the lower chest to the knees, the kneecaps being missing.

Dimensions: height: 168 cm; width (front): 66.4 cm; width (side): 35.5 cm. Phallus socket diameter: 13.4 cm (max.); its depth: 19.0 cm. Phallus base: length (to broken end): 18.5 cm; diameter: 12.0 cm.

Body proportions and modelling
The body, when viewed from the front, shows the same slight tapering inwards towards the waist as is present on 105e. Loss of much of the surface across the chest makes comparison with the profile of 105e difficult, but it seems to have stood straighter.

The left arm is more undercut than is the case on 105e and a greater degree of naturalism has been achieved. The wrist-bone is faintly modelled, although there are fewer signs of the presence of knuckles. Damage has left only a trace of the left thumb above the phallus socket. The belt is generally narrower than on 105e (being also narrower at the front than at the back) and with only six sub-divisions which are more rounded in outline. Of the right arm only the clenched fist with socket-hole survives to any degree. The thumb is at a more modest scale than on 105e and Cairo, and the finger divisions have survived better. The right arm largely covered the upper part of a sash which descended from the belt. In being narrower than on 105e and Cairo the place where it emerges from the belt lay behind the arm. During manufacture, the sculptor made it narrower and the front edge more obvious by cutting back the leading edge at the expense of the leg. As a result the petroglyphs occupied a narrower space and the pair of shells are smaller than on the other two sashes. The socket for the phallus still contains a circular plug of identical limestone. It can be removed, and then exhibits a rounded rear end which seems to fit snugly the profile of the hole made for it.

Despite the loss of much of the original surface, the back has a similar appearance to that of 105e, with indented spinal line and flattish planes on either side, although the buttocks are angled outwards more.

Surfaces: manufacture and subsequent history
Again the front and back differ, but not in the same fashion as 105e. The back is very rough indeed. Comparison with the left side shows clearly that this roughness is several millimetres below the original finished surface, and thus that an outer layer of the surface has disintegrated or spalled off. This is consistent with the colossus having lain in damp earth which has led to loss of the original surface. A less severe decay which has led to a blurring of surface features, including hollows, spreads over the front of the figure and its right side. The right arm has been broken away leaving large slightly curving fractures. The parts of the surface which have been relatively unaffected by damage are the left side of the front, the left arm and flank, and the petroglyph panel beneath the right arm.

On the rear we formed the view that the vertical division between the legs was partly indicated by a line of circular tool marks, as on 105e, but the loss of most of the surface does make this a rather subjective judgement.

Three patches of plaster are present on the front: one below the scrotum, in the middle of the left thigh, and one in secondary hollows on the right leg. The last two are modern and derive from the museum mounting, as with those of 105e. The one on the scrotum is, however, different. A sample of the fine white layer has been shown by FTIR analysis to be 'very pure gypsum' (report, by C. Doherty, in the archives of the Dept. of Antiquities, Ashmolean Museum), and is therefore likely to derive from an ancient repair.

The front surface also bears a series of shallow rounded hollows or cup-marks, more on the right than the left side. They have the same oval outline but are less well defined than those on 105e, and are also more numerous. The lack of definition presumably came about through subsequent weathering. One of the hollows has been carefully centred over the scrotum. The part of the left side that is relatively well preserved bears several gouges, which are patinated, that could be deliberate scratching like that on the Cairo colossus or accidental damage suffered in antiquity.

The petroglyphs (Fig. 7)
The glyphs are not as clear as they are on 105e. At the top is a single design of a gazelle/oryx (?) head from which a tang descends, which could be the animal's tongue but could also represent a support pole as if it were a standard. Comparative material is now supplied by the labels from Abydos which show horned animals' heads (sheep/goat and ox) on poles (Dreyer 1998, 65–7, Abb. 46; 123–5, nos. 82–96; 141). It stands above a pair of *Lambis* shells. They have been carved in very shallow relief. There are no signs of Min-standards. Williams (1988, 43; also Dreyer 1998, 176) suggests that the animal head has been recut from or over a 'frond' or swordfish-saw (i.e. branched pole). Payne's catalogue entry (1993, 13) gives the suggestion a sympathetic reception. In her view the animal head occupies sufficient space to mask original paired Min-standards and swordfish-saws, a suggestion which would bring this petroglyph group more into line with the other two. The surface is unusually rough, but we were unable to find convincing traces of other earlier designs. The animal head, especially the mouth, is at the same level as the pole, possibly marginally higher, whereas the area to the left and above is at the pre-cutting level. Bearing in mind the way that the cuttings which have been claimed to be 'later' were done on 105e, the absence of indications of incision into the stone around the animal head is an argument that it is original. Given that the head is in relief it is hard to see how it could have been fashioned from earlier designs which had very different outlines.

Egyptian Museum, Cairo (JdE 30770) (Figs. 3–5)

The colossus stands in a poorly lit alcove outside room 53, on the first floor of the Egyptian Museum, Cairo. It is difficult to examine and to photograph; in particular, because of the close proximity of the alcove, the back is inaccessible.

Degree of preservation: Only the legs have survived, from midway across the scrotum to mid-calf, including the full length of the petroglyph sash. Most of the right fist, through which a hole has been bored, survives. Photographs taken of Petrie's excavation (prints of which are in the Griffith Institute) show that the colossus was found in one piece. Subsequently it has broken into two parts just below the knees and been repaired, occasioning some damage to the petroglyphs.

Dimensions: height: 175.5 cm; width (front): 63.6 cm; width (side):

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32.3 cm (taken at the lower legs; it was not measurable higher up).

Body proportions and modelling
Front. Only the bottom part of the scrotum is left below the shear-plane of the break. The sack is divided evenly and has the same flat front surface as the Ashmolean statues. Nothing remains of the left hand, and of the right hand only the knuckles and thumb, but of all three colossi the right hand is nevertheless the best preserved, for the outer part has not been knocked away, so leaving the knuckles and the hole for the inserted rod intact. The thumb is elongated but retains its proper undulating profile into which a thumbnail is carved. On the knuckles the finger divisions were originally indicated but the surface has been partly lost.

As the side drawings show, there is a general change in the plane of the colossus at the top of the knees. Above, the front of the thighs descends vertically and parallel to the edge of the sash; at the knee-caps the surface steps outwards and then continues its descent at a slight inward angle, which the rear of the calves seems to follow as well. This would have given the figure a posture of slightly flexed knees. The knee-caps are indicated in a more pronounced fashion than on those of the Ashmolean statues. They are lozenge-shaped areas of raised modelling, separated from the legs partly by the stepping-out at the top and partly by smoothed and nearly straight valleys. Smooth and curving linear muscular ridges have also been modelled across the top of each cap. The sides of the legs have been drawn in beside the knee-caps to create the impression of slight swelling of the sides of the calves, although the sash largely disguises this on the right side. At the level of the knees the Cairo colossus must have been about four cm thicker than either of the Ashmolean pieces, and this is reflected in the sash being broader, too. Although the upper part of the sash is lost the lower part is completely preserved, showing a plain rounded end. It has a clear raised leading edge, as on Ashmolean 105e. A centre line divides the legs, made as a groove marked with circular peck-like marks from a small pick or chisel (or drill?), as on the Ashmolean statues (clear in Fig. 4).

Back. This area is hard to examine because of the positioning of the colossus in the museum, but it is clear that much of the original surface is missing. The upper part of the statue broke off well below the level of the belt.

Surfaces: manufacture and subsequent history (Fig. 5)
The surfaces generally are in good condition except for an area at the back, behind the knees, where a good deal of stone has been lost. A brownish patina covers most of the original surface of the colossus.

Front. The surface remains in good condition and displays a difference in subsequent treatment to those of the Ashmolean statues. There are no proper cup-marks, although in the middle of the left thigh a rounded area has been pecked out (not worn by rubbing). A linear rubbing action has, however, been applied to produce a series of straight deep grooves, mostly on the right leg and crossing from side to side. The front and left side are also covered with many much shallower straight grooves and scratches, sometimes in parallel groups. They mostly run from side to side, but some are also from top to bottom and can cross the sideways grooves. Not all the scratches are distinct (and for this reason most have not been shown on the realistic larger-scale drawing, Fig. 3). It is highly likely that these scratches derive simply from less intense versions of the behaviour that has produced the deeper grooves. It is amongst this plethora of scratches that Williams has sought to recognize the name of Narmer (mistakenly, in our opinion, see below). The fact that the scratches run quite a long way around the left side of the statue, more or less on to the back, suggests that, unlike the cup-marks on the Ashmolean statues, they were formed when the statue was still upright. It is noticeable that, although a few scratches run on to the sash panel, they carefully avoid the petroglyphs themselves.

Back. The damaged area seems to be a large smoothed undulating concavity as if the stone has been rubbed away, although not in a manner to produce regular cup-marks, as on the Ashmolean statues.

The petroglyphs
Because the sash panel is complete, we have the full set of petroglyphs from this statue. The signs do not show any distinct re-cutting. The signs are arranged in four rows (Dreyer 1995, 51; 1998, 175). Row 1: two Min-standards, and to the left of each a branched pole. The ends of these descend much further than the bottoms of the standards. Below the right-hand standard is a long-legged bird (stork/ostrich?); beside the right of the left-hand standard is a long thin tapering object which Boyce, in his copy, sees as divided at the top (cf. the photograph in Dreyer 1998, Taf. 44a). This introduces the possibility that it depicts a serpent (cf. the vertical examples on the Davis comb, also associated with a bird sign: Bénédite 1918, pl. XXXIII; Asselberghs 1961, pl. XXVIII). A possible counterpart is between the shells on Ashmolean 105e. Row 2: a pair of *Lambis* shells. Row 3 (some original damage, made worse by the post-discovery breaking of the statue): to the right (Figs. 9 & 10) came a major component, vertically aligned, of which only the lower part is present. It has a narrow triangular outline slightly stepped along its left side. Petrie's drawing makes it clear that much of the damage above had occurred in ancient times. To the left of the damage and almost joining the elephant's trunk is a roughly rectangular raised area crossed horizontally by four incised lines. It seems to have a right-hand vertical boundary and to stand as a distinct area, separated from the damage above the triangular object, but this might be an illusion. Petrie saw it as possibly the tail of a flying bird. An attempt by Williams to read the catfish glyph (as part of the name of King Narmer) into this group will be discussed below, as will our own interpretation that it was a falcon. On the left is an elephant standing on 'mountains'. In Petrie's drawing the head with tusks and the line of the back were complete, and the beginning of a second mountain was shown. Row 4: two quadrupeds, a bull and a lion or hyaena, stand on mountains.

Williams (1988, 43) has suggested that the composition that we see has at least partly replaced an earlier one, citing specifically the vertical object to the right of the left-hand Min-standard as the remnants of a previous standard. It is possible, however, to resolve this into a separate object (as Petrie himself did). The general roughness of the surface (the result of decay rather than an original attribute) does make evaluation difficult, but our impression is that all signs are probably the product of a single period of carving, including the bird in the first row which might be seen as an insert but is carved in very shallow relief, like much of the composition as a whole.

The Ashmolean head, 1894: 105c (Fig. 6)

Dimensions: height: 54.2 cm; width (front): 49.0 cm; width (side): 42.5 cm.

The shape and proportions of the head are very distinctive. The cranial vault, when seen from the front, has a low curve, which makes the head seem very broad. In profile a continuous curve, becoming flatter down the back of the head, runs from the brow

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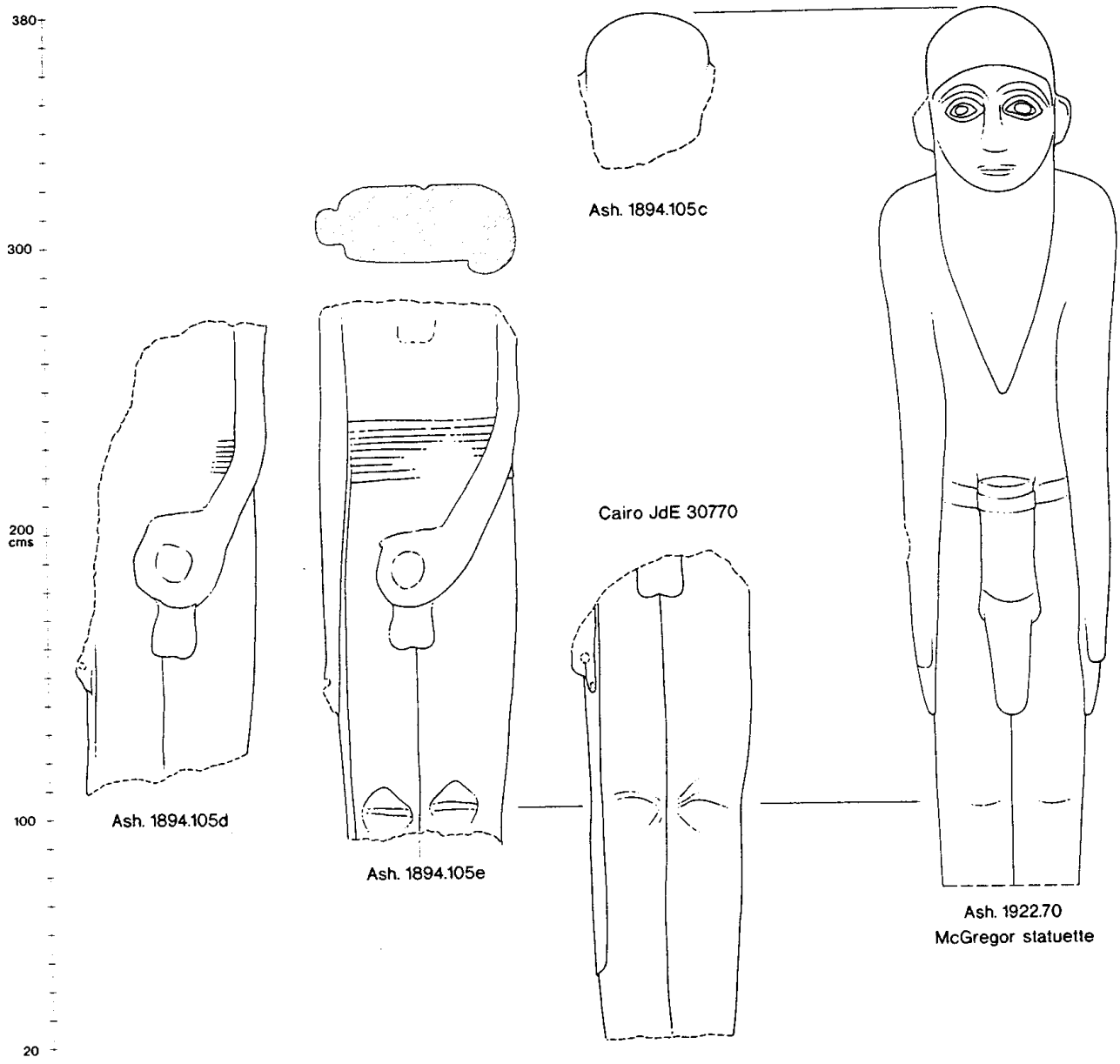


Figure 8. *Outline drawings of the three colossi at the same scale (Boyce & Kemp). The vertical scale is set on the assumption that the ground line (but not the bottom of the stone) was 20 cm lower; it could have been lower still. The outline of the far smaller McGregor statuette in the Ashmolean Museum has been added to illustrate its comparable proportions.*

to the point where the neck should begin. The sense of burly solidity is emphasized by the large size of the ears. There is scope for varying the angle at which the head was originally set. In the new display in the museum it is tilted back more than, for example, how it is illustrated in the catalogue (Payne 1993, pl. I). This does make it look more naturalistic and we have followed this in the drawing (Fig. 6).

The face, if ever present, has been lost. The surface is now nearly flat, and bears three shallow hollows, which are not oval in outline like those on the bodies. Petrie suggested (1896, 8) that a wooden face might have been attached but, in that case, one might have expected more distinct drill-holes for attachment by means of dowelling. The flattened rough surface, as well as the holes, could be a sign of keying to hold plaster in place, for a face which would have been moulded, but the keying seems insufficient. Straightforward obliteration of a carved face seems the most likely solution for the present appearance.

Although no detailed markings for hair were made, in front of the ears on both sides comes an angled line which represents the edge of a cap, presumably a stylized head of hair. Down the right side of the face, in front of the ear and below this line, descends a flat broadening raised band across which parallel grooves have been incised. This represents the top of a beard, without moustache, which framed the face.

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Figure 9. *Photograph of the middle part of the petroglyph panel on the Cairo colossus (Owen).*

The head appears to have a less-finished surface than the torsos, slight irregularities suggesting incomplete smoothing. The back of the head has an area of damage in the form of a rounded concave scar, and both of the ears have lost their detailing. The right side is more pitted than the left. To what extent the head is proportional to any one of the three colossi is hard to say. It is possible that it belonged to a fourth of which nothing else remains, but it was found close to the Cairo colossus (Fig. 11).

The colossi as a group (Fig. 8)

If one judges by those few areas which are close to the original condition, a much more favourable view of the colossi emerges than is given by first impressions which are bound to be heavily influenced by the various kinds of damage that have affected much of the surfaces. Within the framework of the basic shape which the sculptors have chosen, the human form has been streamlined, yet with the retention of an impressive degree of subdued modelling in surfaces which were carefully smoothed. This is best appreciated from the shape of muscle and bone on the right arm of 105e, and also from the faint modelling of the wrist-bone on 105d and the shape of the thumb on the Cairo colossus. The latter also shows a greater degree of plastic rendering of body form on the thighs and knees.

The colossi present a solid grouping of volumes along a single vertical axis, in a more or less bilaterally symmetrical composition. The arms have been partially retained within the immobility of the total form, yet keep their identity as separate body parts through their roundness and modelling. The colossi give a different impression of their form between front/rear and side views on account of the flattening of the torso. From the front and back the sense of immobile mass predominates, whilst from the sides the succession of sweeping uninterrupted vertical planes takes over. The equal care devoted to the back and sides, and the placing of the petroglyphs on one side, is entirely consistent with the interpretation advanced below, that the colossi were free-standing sculptures which were readily viewable from all sides.

They have been shaped according to a conceptual schema which elongated the torso, legs and arms, yet aimed to retain a set of natural internal proportions. This is most obvious in the correct placing, relative to the body, of the divisions of the arms, although the elongation subtly enables the left forearm to reach the base of the penis whilst keeping the upper arm vertical. The exception is the enlarged size of the penis and of the hand that grasps it. This and the diagonal line of the left forearm, which breaks the otherwise axial rigidity, directs attention to this part of the anatomy. Nonetheless, the relative proportions of the colossi do vary from one to another. The distance between the base of the testes and the centre of the knee is the only significant measured comparison that is possible between two of the colossi (Cairo and Ashmolean 105e). On the Cairo colossus it is about 1.3 times larger, although the widths of the figures are similar. It is evident that the sculptors did not keep to a fixed set of proportions which they marked on the stone as they progressed.

On both Ashmolean colossi the vertical division between the legs on the front runs not down the centre but to one side, favouring in thickness the left leg. Kate Spence, in an annotation to a draft of Figure 8, has suggested that the sculptor might have begun by laying out a true central line but then cut more away from the right side in order to model the right arm. This appears to have been the case even

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with the Cairo colossus, although lower down the legs the asymmetry is resolved. On the other hand, when viewed from the rear the central line is much closer to the body's true axis. The fact that this idiosyncracy is shared points to a similar sequence in working the stone in all three. A major step in carving would have been the cutting and drilling of the penis socket, which might have been done at a very early stage with the maximum amount of stone present, reducing the danger of splitting the block in two. It seems to have been difficult to control the positioning of the socket in relation to how the statue was to be finished, with the result that, whereas on 105d it is centrally placed, with the leg division to one side, on 105e both are in line with one another, the penis socket itself being off-centre.

It remains uncertain how they continued downwards and terminated. Previous reconstructions have given them feet and a heavy pedestal (Kemp 1989, 81, fig. 28; Williams 1988, 42, fig. 5), under the influence of later Pharaonic statuary. For reasons given below, however, I now consider this to be mistaken and that the legs continued straight downwards, eventually becoming a probably unsculpted extension which was sunk into the ground. If the colossi kept the elongated body parts roughly proportional to the subdivisions of the human body, the distance from penis to kneecap should have been the same as from kneecap to the base of the lower leg. This would mean that, in the case of the Cairo colossus, only about 10 cm is missing from the ground line, and the bottom of the petroglyph sash would have reached to within about 40 cm of the ground. If we then use the vertical proportions of the McGregor figure (see below, p. 223) (which are also more or less naturally correct, although, unlike the colossi, the shoulders are broad in comparison to the rest of the body) for the upper part, the full height of the Cairo colossus from the ground line would have been about 3.70 metres. In the reconstruction drawing (Fig. 13) the colossi have been made a little taller, to take the petroglyph sash 10 cm or so higher. An additional length of stonework would have been sunk into the ground, say 70 cm, to give a complete length for the colossi of nearly 4.5 metres. The head has been placed above the Cairo colossus, reflecting the fact that it was found close by (Fig. 11).

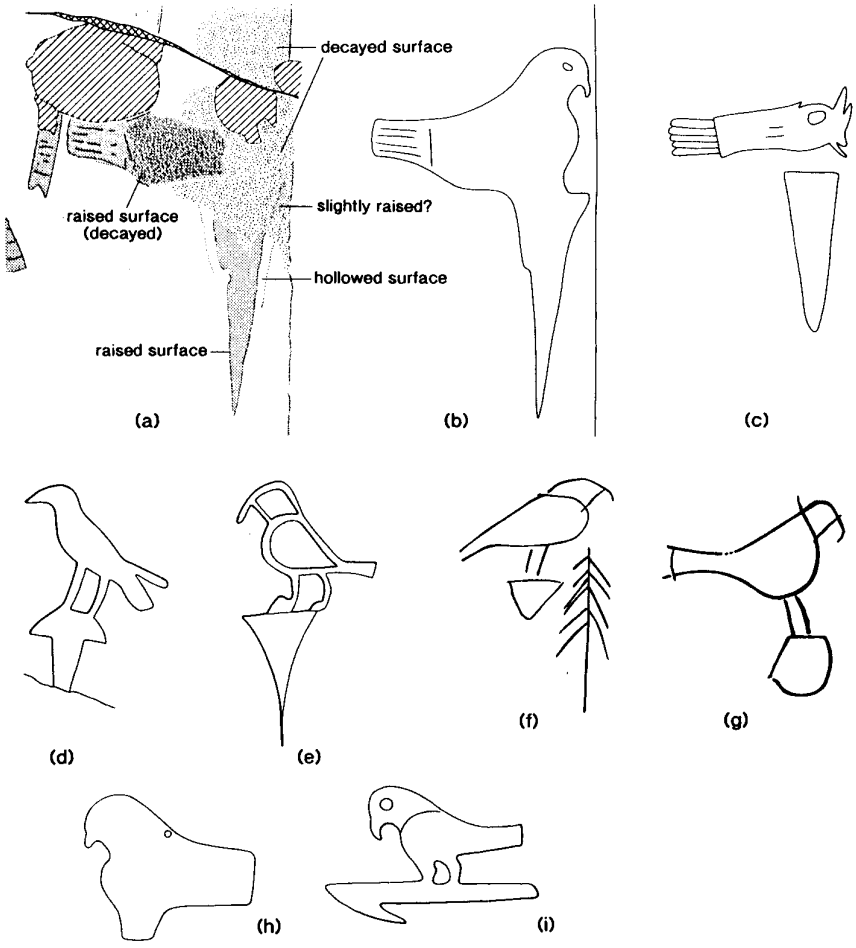


Figure 10. *(a) Copy of the middle part of the petroglyph panel on the Cairo colossus; (b) suggested reconstruction of the original design; (c) the same, as reconstructed by Williams (1988, 39, Fig. 3a); (d)–(i) bird-of-prey figures of the 1st Dynasty or just before (after Petrie 1901, pl. XI.1; Petrie 1900, pls. XIV.12, XLIV.8, 9); (h) is a slate palette, Cairo CG14237 (own sketch); (i) is from the Narmer Palette.*

Petrie himself (1896, 9) voiced the idea that the statues might not be wholly contemporaneous with one another: 'the presence of three such colossi, so large that any one would be a notable centre for worship, makes it unlikely that all were used at once; they rather seem to have been each substituted in succession, as the earlier ones became injured'. This

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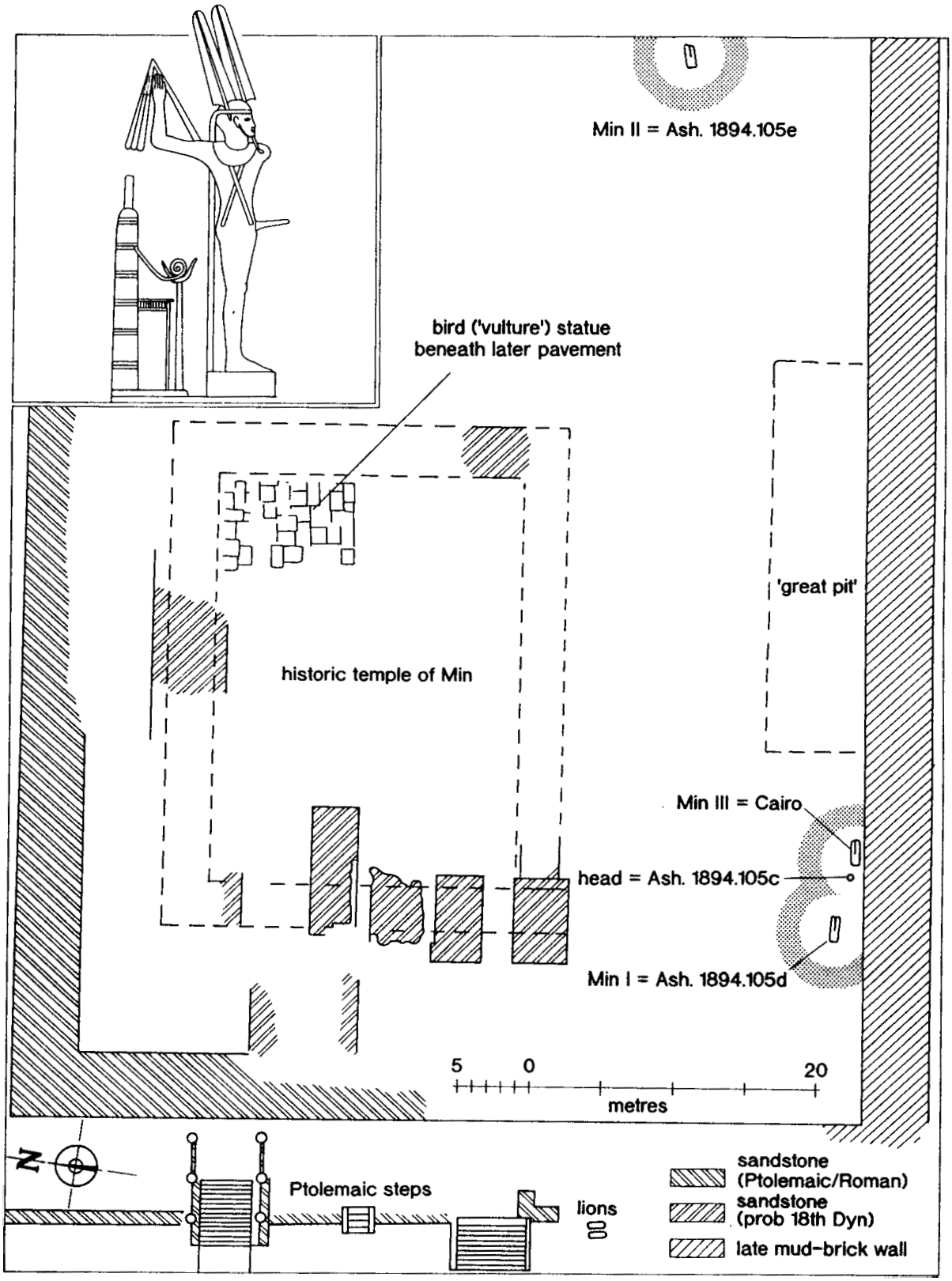


Figure 11. *Plan of the temple site at Coptos, with the early material highlighted (after Petrie 1896, pl. I); inset is a Middle Kingdom representation of the god Min standing in front of the stylized rendering of his archaic hut-shrine (after Smith 1998, 92, fig. 162, Karnak pavilion of Senusret I).*

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is not, however, a necessary conclusion. For different reasons, both the reconstruction proposed by Williams (1988, figs. 8, 9) and the one put forward here (Fig. 13) display them simultaneously. Differences in time of manufacture would have been only delays in completing a monument in which all were displayed together though probably widely separated (see below). That said, many years could have passed between starting and finishing the project as a whole (always assuming that it was completed). There are perhaps some signs as to the order in which they were made. On Ashmolean 105e the knee-caps are rendered as pairs of triangles outlined by broad incised lines. On the Cairo piece they are more realistically modelled and the asymmetry problem has been better resolved. Was this the last of the three to be carved? The content of the Cairo petroglyph panel is closely similar to that on Ashmolean 105e, whereas that on 105d, in so far as it is preserved, shows a greater difference (Fig. 7). The order of carving was thus perhaps as shown in Figure 8: 105d first, Cairo last. This is the order which Petrie put forward, too (implied in Petrie 1896, 7–8; explicit in his field notebook, UCL Petrie notebook no. 52).

Seen as statues they have been subject to a certain amount of art-historical commentary (summarized in Williams 1988; also McFarlane 1995, 164–6). The closest parallel in shape and style is the small basalt statue (also in the Ashmolean Museum) originally purchased in Egypt and part of the McGregor Collection (Payne 1993, 13–14, pl. VI; Phillips 1995, 68–9, cat. 1.22, by Baines and Whitehouse). We have included its shape in Figure 8. Other comparisons have been made with the numerous category of ivory statues from the Predynastic period (Phillips 1995, 68, cat. 1.21, by Baines and Whitehouse). The elongated cylindrical form of many of them can be said to have been influenced by the shape of the raw material. Some of the bearded heads on earlier stone and ivory 'tags' also invite comparison. An important aspect of the colossi is that not only are they unnaturally elongated, but their front and back surfaces are also distinctly flat. They are, in fact, like modifications into human shape of huge standing slabs or stelae. This aspect is emphasized by the petroglyphs, which invite the viewing of the colossi from the side. The significance of the vastly smaller-scale pieces of statuary which are cited as comparable is that they illustrate the models which their creators, at Coptos itself or in the quarry, might have had in their minds when they progressed from carving plain standing stones to colossal human figures.

In historic times the ithyphallic image of Min became a stock figure of religious iconography, in time extended to anthropomorphic representations of Amun-Ra and even of Osiris. The degree of visual emphasis upon the phallus is unusual in the ancient world, and can be presented as a cult of the phallus in ancient Egypt (Hare 1999; cf. also Pinch 1993, 238–45; for ithyphallic figures in the Predynastic, see McFarlane 1995, 157–60). Yet the grasping of a rod of some kind (which in historic depictions became the handle of a flail) is almost equally striking, and has given rise to a somewhat different interpretation of the basic character of Min: that he was an apotropaic, threatening deity, expressing 'phallic intimidation' (Ogdon 1985/6; also Wilkinson 1991/2). Ogdon's view that the Coptos colossi were 'guardian-statues' (Ogdon 1985/6, 53) actually fits well the reconstruction of their original locations developed below. In the colossi there might already be more than one layer of meaning (cf. a much later form of Min: 'who massacres his enemies': Coenen 1998).

Their date of manufacture

Those who have commented upon the colossi have placed their date of manufacture within quite a wide band of time, from the end of the Predynastic and the early part of the Dynastic periods (e.g. Smith 1946, 7; Ranke [1951], 7; Kantor 1974, 255, no. 221; Fischer 1980, 737; Malek 1986, 25; Davis 1989, 172–3; Quirke 1992, 46; Smith 1998, 10), to the 3rd Dynasty (Hornung 1983, 108, with other references) and even later still (Baumgartel 1948, now a near-untenable position). Williams examined the Cairo colossus in 1987 and came to the startling conclusion that, in the third line of petroglyphs, the block of horizontal lines beside the upper left-hand area of damage is amenable to 'only one reconstruction (that) fits the remaining shapes exactly, in a manner consistent with Egyptian iconography', namely, the tail of a catfish. Its combination with the triangular shape below (which then becomes a chisel) forms the hieroglyphic group which reads the name Narmer, the king who was perhaps the first of the 1st Dynasty (Williams 1988, 37, fig. 3a; our Fig. 10c). He supported this interpretation with copies of three groups of scratches elsewhere on the body, one of which he read as a separate catfish, another as a *serekh* (a design which normally accompanied early royal names) with a curved top, 'a type that ceased to be made in the reign of Aha', and a harpoon.

When Petrie's copy of the traces of this group of signs is taken on its own, Williams' reading flows logically from it, such that it seems surprising that

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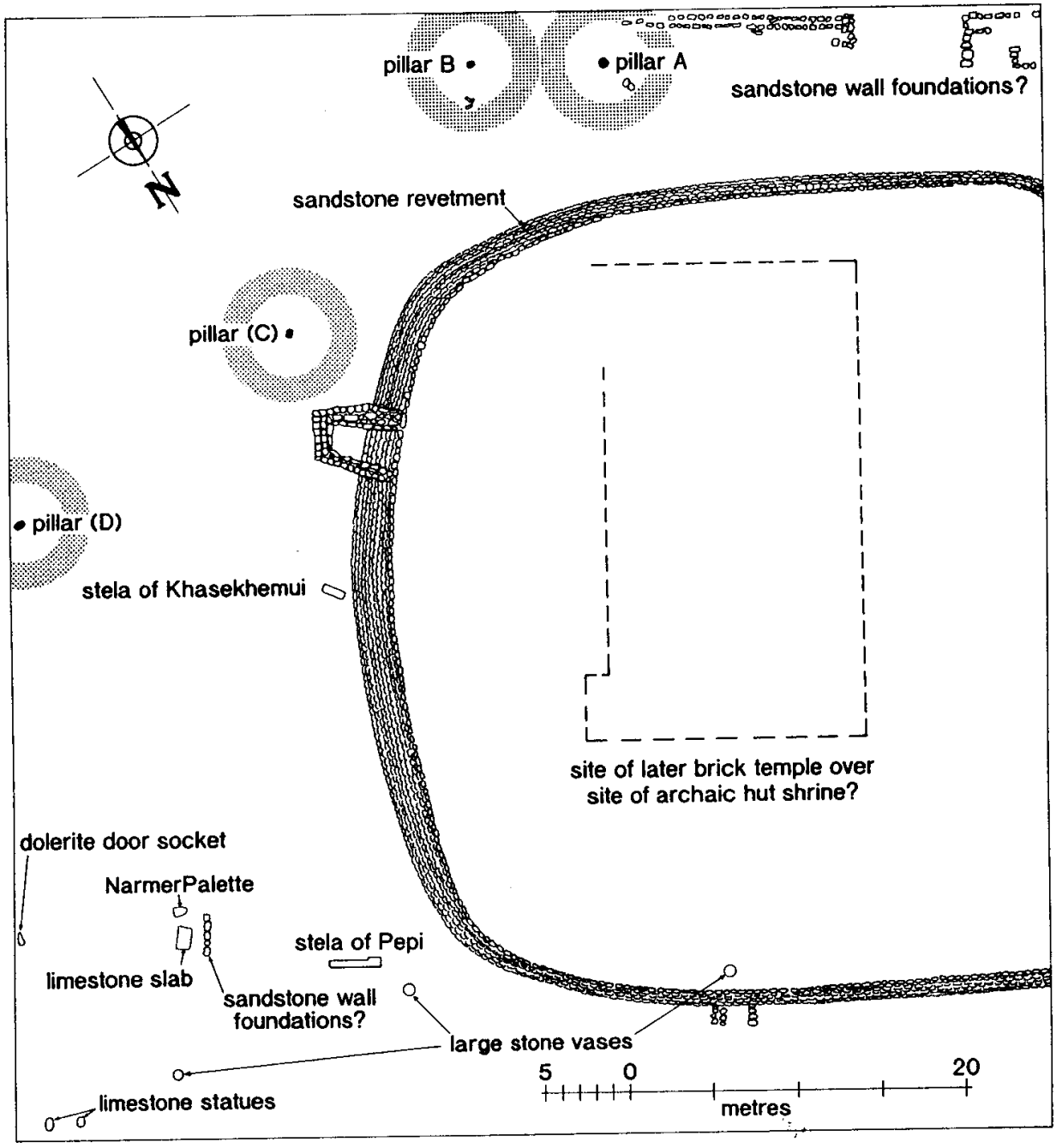


Figure 12. *Plan of the early temple mound at Hierakonpolis, with the positions of the four standing stones highlighted (after Quibell & Green 1902, pl. LXXII).*

no one had made it before. When set in the context of the petroglyph panel as a whole, however, the reading becomes less comfortable. In view of the care and formality shown in the making of the panel it is surprising that the name was not part of a *serekh* itself, although there are examples of Narmer's name without one. The group, however one reconstructs it, violates the linear arrangement of the adjacent figures. When read as the name Narmer, the violation occurs not because the group is larger (and hence, perhaps, more important) but simply because it has been set much lower down than the elephant group, the narrow form of the catfish leaving empty space above for a degree of upwards adjustment. It there-

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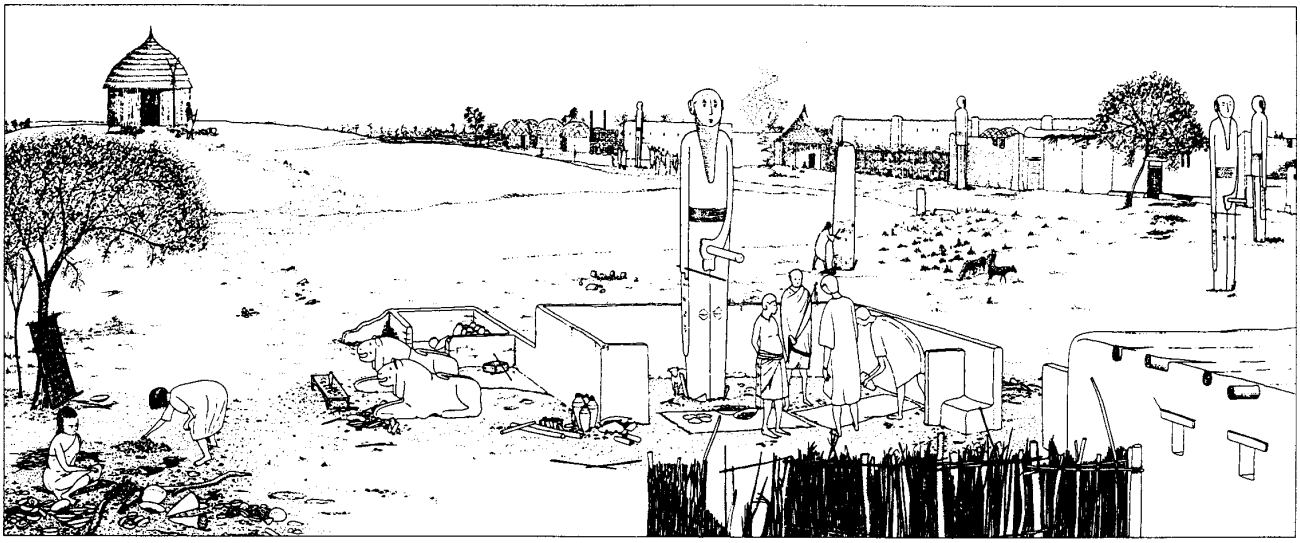


Figure 13. *Reconstruction of the original setting of the Coptos colossi (Kemp).*

fore breaks the linear arrangement unnecessarily.

It is unfortunate that this is the one part of the colossus that has suffered damage since discovery. For the key area we are to some extent obliged to rely upon the published photograph of the paper squeeze made at the time. We ourselves have, on more than one occasion, compared this with the present surface appearance, both directly and by photographs (Fig. 9). An attempt is made in Figure 10a to capture various characteristics of this damaged area, although any such attempt is bound to be somewhat flawed since so much depends on the angle of light. But even though the damage and general surface roughness put much of the area at or beyond the limits of legibility, some clues can nevertheless be extracted. The most important is the area occupied by stone which, despite its rough and decayed surface, seems to be at the raised level of relief areas. This exceeds, in an upwards direction, the area that the body of the catfish should occupy. If a catfish had been here, the line of its back ought to be visible. Instead, at one point this area runs to what is possibly a short length of straight-cut edge which angles upwards towards the right. This coincides with a longer upwardly sweeping line in Petrie's illustration. The same is true lower down: the raised area extends downwards beyond the line that one would have expected from the shape of the catfish.

Petrie himself took the 'tail' group of lines as the tail of a 'flying bird (?)'. I think that one can improve on this suggestion and find an appropriate design which matches the surviving traces and is more in the spirit of the other signs than a royal name. The design is that of a falcon which is perching rather than flying and is doing so above an object which looks like a spike. Clear examples occur on two early 1st-Dynasty labels from Abydos (Petrie 1901, pls. III.2, XI.1; cf. also Petrie 1900, pls. XI.5, XIV.12). It is possible that these examples belong to a wider set in which the falcon grasps or rests above other objects. One is on the Narmer Palette, where the object is a horizontally-lying harpoon (Petrie 1953, pls. J, K; Asselberghs 1961, pl. XCV). In the other cases, because of the simple outlines used, it is hard to tell what the objects are and even whether they have the same significance. Some are rounded, some are elongated (Petrie 1900, pl. XLIV.2-9; Dreyer 1998, 121–3, nos. 73, 78–9; 126–8, nos. 110–26; 141–2, interpreted by him as the sign for vulva=feminity=royal harim), some have been read as the name of a king, Iri-hor (challenged by Wilkinson 1993; 1999, 55, 234). One might see the shape reflected in a few Predynastic slate palettes (e.g. Quibell 1905, 232, pl. 48, no. 14237, our Fig. 10h). In the writing of the name of the early 1st Dynasty king Aha, a latecomer in this sequence, the falcon grasps mace and shield and so becomes an integral part of the hieroglyph 'fighter' (Aha). Are they all different ways of expressing the same violent aspect of heavenly power? (One might compare the Middle Kingdom composite deity Min-Horus-the-Victorious: Spiegel 1973, 66–77; Quirke 1992, 46). A short 'spike' is also shown beneath the scorpion before the king on a ceremonial macehead in the Ashmolean Museum (Malek 1986, 29).

Since we are all bound to be much less sure of

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the rules governing the layout and content of sign groups and early inscriptions of this period than we are of later hieroglyphs, it does not do to be too strident in rejecting any one reconstruction of this key group. Williams' reading does remain a possibility. We consider it, nevertheless, to be a very unlikely one which ought to be set on one side. The graffiti, it should be noted, offer no support to the Narmer reading. The copies that Williams uses are not wholly correct and gain significance in being shown on their own, whereas they are actually selections from many more scratched lines which derive from subsequent attention to the surface of the statue. The drawing of the catfish-design has been given a 'tail' where in actuality it passes into an area where the original surface of the stone has been lost.

Just prior to Williams' Narmer reading becoming available, I had set out some of the dating arguments, concluding, with some hesitation, that a date of creation towards the beginning of the Early Dynastic Period was most likely (Kemp 1989, 80–82). This was perhaps too conservative a view, influenced by a reluctance to separate the making of the colossi from the general history of stone-working in Egypt. One of the points developed later in this article is that it is possible to see the colossi as representatives of a practice of setting up standing stones, sometimes with human attributes, with wide occurrence in neighbouring regions and extending back much further in time than the Late Predynastic period in Egypt. It includes examples from Upper Mesopotamia (the sites of Nevali Çor and Göbekli, see Beile-Bohn *et al*. 1998), from the ninth and tenth millennia BC. They illustrate that accomplished stone-working can be one of the first industries that a society develops, and make it easier to accept that the Coptos colossi might have been a precocious product of an earlier period.

One is still left, for ascertaining the date, primarily with the petroglyphs carved on the sides. Parallels for individual motifs from much better dated contexts have become available from recent excavations at the royal tombs of Abydos, in particular from labels found in tomb U-j. These use as motifs the elephant on mountain peak, and gazelle head on a post, in what is hailed as an early stage in the development of writing (Dreyer 1995; 1998). The tomb has been dated to stage IIIa2 of Kaiser's Naqada system, *c.* 3150 BC, thought to be between a century and a century and a half before the beginning of the 1st Dynasty (discussion in Wilkinson 1996, 14–15; cf. the spacing of dates in the C14-chart in Görsdorf *et al*. 1998). It also contained fragments of an obsidian bowl shaped as if held by a human hand, the knuckles of which have been indicated in a linear style reminiscent of the treatment of the knees on Ashmolean 105e (Dreyer 1998, 167–8, Taf. 41). Even this evidence leaves the colossi as latecomers compared to some of the related material from other societies in the region.

Before leaving this subject it is curious that the ancient annals on the Palermo Stone record the 'Birth of Min' on at least three occasions, spread across the 1st and 2nd Dynasties (Schäfer 1902, 17, 28; Gauthier 1915; also Wilkinson 1999, 291), there being a strong possibility that the term 'birth' means here (as it not infrequently does in later inscriptions) 'creating' an image of a god (as with Sethe 1914). It is perhaps surprising that none of those who have sought a date for the colossi in the 2nd and 3rd Dynasties have turned to the Palermo Stone for support.

Surface marks subsequent to manufacture

Over a period of time the surfaces of the statues were worn away by very localized rounded patches of abrasion to produce hollows or cup-marks. Very similar hollows are found on an early statue from Hierakonpolis (Ashmolean E3925; Phillips 1995, 70, cat. 1.23, by Eaton-Krauss), and one probably on the lower part of a free-standing stone pillar found at Hierakonpolis (Quibell & Green 1902, 8). A plausible explanation is that they are unusually early examples of a practice widespread in much later times in Egypt of rubbing stone dust from sacred buildings, the dust so produced becoming an ingredient to be used in magic, a telling example being the light scraping of the penis on the ithyphallic images on the limestone shrine of Senusret I at Karnak which had been done prior to its demolition in the time of Amenhetep III (Lacau & Chevrier 1956, 166).

It is perfectly possible that this process began whilst the colossi were still upright, to judge from the case of the still-standing pillar stump found at Hierakonpolis (see below). As noted above, the scratches on the Cairo colossus, because they extend around front and sides and part of the way into the back (much of the back itself is now lost), are likely to have been incised whilst it was upright, and the same could apply to those on the left side of Ashmolean 105d. Some of the marks on the Ashmolean colossi are, however, too high up to have been made when they were standing. This is likely to apply to anything much above two metres (Fig. 5). Most, too, are almost perfectly round. The likelihood is, therefore, that they were ground into the surface whilst these two colossi lay face upwards. Since there are

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more hollows on the right side of Ashmolean 105d, and more on the left side of 105e, they did not perhaps lie completely flat but partly on one side, presumably because the surface on which they lay was irregular. It would be useful to know in what position Petrie found them all. On his site plan they are conventionally drawn at a small scale so that one cannot answer the question. The photographs which he took at the time, a set of which are in the Griffith Institute, Oxford, are also less than authoritative. They show all three lying on their backs, including the Cairo example. But whilst one of the photographs (K.5) shows Cairo and Ashmolean 105d lying side by side, the plan (Fig. 11) places them more than three metres apart with the head in between. Ashmolean 105e also lies supported on pieces of stone. One has to conclude that the photographs were taken after the colossi had been moved from their original positions. Petrie's description of the discovery of the Cairo colossus in his manuscript journal (quoted below) shows that it was not until he had turned it over that he realized what it was. This implies that it was lying face downwards, and this is also the figure whose front surfaces might not have been worked after it had fallen and whose back is so badly damaged. Neither the journal nor the published text comments on how the other two lay when first seen.

The archaeological context of the colossi

For the archaeology of Coptos we are still largely dependent upon Petrie's brief account. His excavations were confined to the foundations of the main temple (of Min and Isis), which lay inside a much larger temple precinct of the Graeco-Roman period, itself part of an even larger archaeological site (general map and description in Weill 1911; Traunecker 1992, 3–15, 21–3; Musée des Beaux-Arts 2000). Temple rebuilding over the centuries in Egypt tended to involve the replacement of existing structures at the same floor level or even the digging out of earlier levels to create a sand bed for the new construction. At Coptos, as at other similar sites, the results played havoc with stratigraphy and left only fragments of early material. The site had also, prior to Petrie's arrival, been dug over quite thoroughly by the townspeople in the combined search for treasure and for enriched soil (*sebakh*) to spread on their fields. Amidst this stratigraphic chaos Petrie reached the natural underlying soil, probably by means of a series of irregular holes rather than by full area clearance (cf. Adams 1997, 12). It was 'tenacious yellow clay' that he compared to London clay, and was part of a wadi outwash fan of fine sediment that must once have jutted out from the desert into the alluvial valley. Petrie observed that much of this must have been eroded by later drainage; 'but a mass of it remained high above the Nile deposits, and formed a knoll which projected through the flat expanse of black Nile mud around it'. Coptos, or at least its temple site, was thus a classic high place, an impression reinforced by his description of one specific part:

> Along the west of the clay island it was found to slope down very steeply, and over the slope was thrown out a bed of at least five feet thick of fine black ashes. From the steepness of the slope, which indicated rapid water-wearing, and the throwing of rubbish which suggested that there was no occupant of the ground below, it seems likely that the river-bed ran then close to the island of clay (Petrie 1896, 3).

He supplies no note as to the date of this deposit.

The earliest structures that Petrie recognized were 'dwellings' or 'habitations', of which he gave no further details except of a floor of mud (perhaps of bricks) laid over rows of inverted cylindrical pots, evidently placed on the basal clay. The associated pottery of this phase was of the Old Kingdom and it occupied the ground of the later temple forecourt. Despite the important rôle which Min played in the religion of historic times, his temple never attracted the resources to make it into a truly monumental building, at least prior to the Ptolemaic Period (Fig. 11). In the 18th Dynasty when, probably for the first time, it was made into a wholly stone building, the foundations that Petrie found look as though they covered an area of about 27 × 35 metres, perhaps for a building of peripteral design (Traunecker 1992, 23). Beneath a part of the stone pavement from this he found 'a bed of about four feet thickness of dark earth and fragments of pottery'. Some of it appears to have been of the Old Kingdom but there were also Predynastic sherds, black-topped red (B-ware) and white crossed-line (C-ware), the latter characteristic of the earlier Predynastic period, the Amratian. Whether they derived from an undisturbed Predynastic layer or had become incorporated into a mixed layer of debris one cannot judge, though the latter seems more likely. It must have been within this material that the limestone bird sculpture, now also in the Ashmolean Museum, was found (Petrie 1896, 7).

Combining Petrie's sparse descriptions with the general picture that one gets from other sites, Coptos emerges as one of the natural mounds (the Arabic term *gezira*, 'island', is useful here), which protruded through the alluvial floodplain and which are likely to have played a key rôle in the establishment of

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early settled life in Egypt. How large the Coptos *gezira* was cannot be estimated on available evidence. In Figure 13 I have envisaged a Predynastic settlement to one side or on its flanks, a precursor to a larger brick town of the Old Kingdom which encroached on or surrounded the site of the shrine.

Reconstructing how the colossi stood

Five years after Petrie was at Coptos came what is still, despite much fieldwork in recent decades devoted to early settlement sites, the most important and revealing discovery of an actual early temple, at Hierakonpolis (Quibell & Green 1902; Adams 1974; Adams 1995, 4–17; our Fig. 12). Almost lost within another all-too-concise excavation report is the best explanation for how the Coptos colossi had been displayed.

The principal feature of the temple was an artificial mound, carefully revetted with small sandstone blocks, which measured about fifty metres across and stood at least three metres high. There is a temptation to wonder if Petrie failed to see in the knoll of clay on which the Coptos temple stood an artificial mound like this one at Hierakonpolis (where, in subsequent years, local people wholly quarried away the principal evidence, namely, the sandstone revetment: Adams 1995, 59). On the other hand, if the Hierakonpolis mound was an attempt to create a *gezira* where none had stood naturally, it seems quite legitimate (until and unless fresh fieldwork suggests otherwise) to accept that a geological mound at Coptos provided a perfect setting for a shrine. Indeed, the primacy which the colossi give to Coptos as a sacred site at this time raises the possibility that at Hierakonpolis the mound-builders were actually imitating the natural hill at Coptos.

Around the foot of the artificial mound patches of the surface of the contemporary ground had been preserved, or rather of the ground at more than one phase of the temple-mound's life since they were not all at the same level. Here and there the archaeologist F.W. Green observed that it had been paved with pieces of sandstone. These he carefully included in his plan but they seem to follow lines that are more regular than the random spread that one might expect from a broad pavement. Green himself saw this and wondered if they might mark pathways (Quibell & Green 1902, 7), but they could perhaps have been the footings for brick walls, which were noted by a later expedition in part of the adjacent town (Garstang 1907, 134–5, pl. II.1). Beside pillar 'A', for example, the alignment could mark the line of an enclosure wall with gateway. Somewhere in the vicinity there must have been a building in which were deposited votive offerings and stonework, including two life-sized limestone statues of a kneeling man (and the famous Narmer Palette, and the mass of ivory carvings, the famous 'Main Deposit'). I have, in the past, been inclined to assume that this material was originally placed in a sanctuary on the top of the mound, and was buried where it was found only when the temple was rebuilt. But it could just as well have been housed in a building on the site where it was actually discovered, beside the foot of the mound (as suggested by Adams 1995, 72). The remarkable early door-socket in the form of a captive head could even have been *in situ*, and marked an important entrance. Green himself speculated that the adjacent line of stones 'may have formed part of some structure since destroyed' (Quibell & Green 1902, 7).

What distinguished the ancient ground surface especially was that, in the words of the excavator: 'At certain places, rude pillars, or perhaps statues, were set up' (Quibell & Green 1902, 8). Green went on to describe the lower parts of two pillars of limestone, found standing vertically in holes in the ground with support provided by packing-stones. One measured, in cross-section, 26 × 33 cm (and stood to a height of 1.1 m), the other 38 × 40 cm (with a height of 1.25 m). Their original heights are unknown. Green noted that, on the latter, 70 cm up:

> is a mark that may have been produced by abrasion such as may be seen on ancient buildings like the temple of Edfu, or may have been produced by a blow from an axe, or other sharp instrument, the cut produced having been altered by the action of the surrounding damp soil (Quibell & Greeen 1902, 8; Adams 1974, 29 for the 70 cm).

This sounds very much like a description of one of the cup-like marks on the Coptos colossi. Green himself made the connection: 'It may be that these pillars are the lower portions of rude statues, such as were found by Professor Petrie at Kuft (Coptos), and at the northern gateway of the town during the present excavations'. The last mentioned, found re-used in front of one of the town doorways, is reminiscent of the Coptos colossi, except that it is clothed, the left arm was angled upwards across the chest, and the left leg was advanced (Quibell & Green 1902, pl. LVII; Phillips 1995, 70, cat. 1.23). It, too, had cup-marks worn into its surface down one side and, as Harrell's geological report demonstrates (see below), it probably derives from the same quarry as do the colossi.

It is likely that there were more than two stand-

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ing stones at the Hierakonpolis temple. Green noted that, in the previous year, Quibell had found two others in a different sector around the temple mound (Quibell & Green 1902; their positions marked on pl. LXXII, also our Fig. 12, where they have been labelled 'C' and 'D'), though he was not able to say how they compared in dimensions and cross-section with Green's own pair, found *in situ*. It is disconcerting that Quibell himself omits them from his brief account, leaving one wondering if similar pieces have been found on other sites and allowed to go unreported. The pillar bases described and illustrated by Green evidently showed no trace of leg divisions, so ruling out the possibility that the statue from the town gateway belonged with either. It must have stood in yet another location. This evidence leads directly to the conclusion that the Hierakonpolis temple mound was, at least in part, surrounded by an informal array of limestone pillars. It is also a reasonable inference that at least one tall narrow pillar-like human male statue formed part of it. The layout would have been unlike that of Egyptian temples of later times, and would have possessed a major characteristic not represented in the rather copious iconographic depictions of early religious buildings (Badawy 1948, 10–27, 31–5, 46–50; Kuhlmann 1996), a reminder that iconography can be quite selective.

The surrounding array of standing stones at Hierakonpolis is a matter of direct archaeological observation. One of them probably bore cup-marks, as did the male statue. The pillars have not survived so we cannot check their provenance, although since Hierakonpolis lies in the sandstone belt of Egypt they must have been brought in from outside. Harrell's report demonstrates that the Hierakonpolis statue and the Coptos colossi most likely came from the same quarry, implying some common involvement in their manufacture, and this could well have embraced the pillars, too. These circumstances create a good case for arguing that Hierakonpolis provides a model for how we should reconstruct Coptos. By this view the colossi would have stood more or less where Petrie found them.

The way that the temple site at Coptos had been disturbed and the sparseness of Petrie's account leave little basis for stratigraphic control of how the colossi lay. The limestone lions Petrie found lying 'on the hard yellow clay several feet lower than the steps of the Ptolemaic temple' (MS Journal, cited by Adams 1997, 10; also Petrie 1896, 7). They thus lay on the buried surface of the *gezira*. The colossi were also found at a deep level. Petrie's account, in his manuscript journal (pp. 20–21; also quoted in Adams 1997, 11), makes this clear:

> Then in a hole against the south wall of the temple area I saw a long block *of limestone*, lying deep down in some sand bed of foundations. I thought it was a piece of a clustered pillar. At last when it was cleared I found some carving, & on turning it I saw it to be the legs of *a statue* of Khem (or Min as we should now write).

His subsequent description shows it to have been the Cairo colossus. The photographs he took at the time (K.5 in particular) seem to show the wall looming behind the colossi as if descending to their level. The wall in question is part of an inner temple enclosure built in a late period. At other sites where late temple enclosure walls were built on long-occupied ground, they were set in deep foundation trenches (perhaps measured in metres) and this might have applied here. On the other hand, Petrie also talks about the colossi lying 'beneath the thick sand bed of the Ptolemaic temple' (1896, 7), as if a part of the site, at that time low-lying and perhaps an area of the original *gezira* surface, had been re-exposed at this late date and then covered again with sand. Whether the 'great pit' (Fig. 11) was part of this activity is not clear. What is reasonably certain is that the ground level of the Ptolemaic temple, and before that of the New Kingdom temple, was substantially above the level at which the colossi lay, which latter cannot have been far from, and might have been the same as, the *gezira* surface. This does not preclude the colossi having been moved from their original positions, and had it not been for the situation at Hierakonpolis I would have hesitated much more before suggesting that they had originally stood widely spaced and free-standing.

In Figure 13 I have attempted to portray how I envisage the placing of the colossi at Coptos, using the Hierakonpolis analogy. In the background rises the low knoll of clay around which the village of Coptos has developed. On its summit stands a circular hut-shrine and a wooden post supporting a symbol. The shape of the hut-shrine I have taken directly from the later standard images of the ideal shrine of Min (Badawy 1948, 159–60; Munro 1983), though I have reinterpreted the symbol on the pole as the skull of a gazelle, as carved on the sides of the colossi. The hut-shrine could have contained an image or could have been kept empty, like those of some traditional Upper Nile societies (e.g. Jedrej 1995, 99–115). Around the base of the mound the colossi have been set up in a rough arc, its size given by the locations in which Petrie found the three survivors. This is perhaps too neat a solution, since the four

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Hierakonpolis pillars were not actually in an arc but were laid out either more irregularly or, supposing that there were others now lost, in a different and unrecoverable pattern. Kirby (pers. comm.) has made the pertinent observation that the Cairo example, the most artistically developed, lay closest to the proposed earliest of the three. This is indeed awkward if the colossi were set up progressively to form a circle; but if the arrangement was less regular (as at Hierakonpolis) there might have been greater choice as to where new pillars/colossi should be placed.

When I first reconstructed the shape of the Coptos colossi (Kemp 1989, 81, fig. 28), I gave them feet and a heavy pedestal, but in this I was allowing myself to be too strongly influenced by the tradition of Pharaonic statuary. The Hierakonpolis parallel points to them having ended in a long plain stump which would have been sunk in the ground, with extra support provided by pieces of stone hammered down alongside. As a way of suggesting the thinking that might have lain behind them I have imagined an earlier stage when the sacred area was surrounded by smaller plain pillars like those at Hierakonpolis, on which cup-marks and grooves were scratched (a woman is shown actually doing this). The pair of lions is not far from where Petrie found them. I have omitted the large bird statue, which Petrie found beneath the later temple pavement. In the foreground I have drawn the edge of a brick building, to represent a depository for votive offerings similar to the one which probably existed beside the mound at Hierakonpolis. This, and the colossi themselves, represent early steps in investing more than token resources in cult.

In the background lies part of the 'town' of Coptos. I have made it into an open settlement but possessing a fortified residence or citadel. This, it seems to me, corresponds better with the available evidence for settlements of this period than the reconstruction by Williams (1994) which sets them entirely inside a fortified enclosing wall. Unlike Hierakonpolis, which was largely abandoned after the Old Kingdom, Coptos remained a town of importance. A build-up of town debris over three millennia would have gradually left the mound as a low-lying place surrounded by streets and houses at higher levels. Even so, in the period of Hellenistic rule by the Ptolemies flights of stairs were still needed at the front of the temple, although by then the temple pavement itself stood on layers of earlier debris (cf. Musée des Beaux-Arts 2000, 62, fig. 28).

Influenced by Petrie's comments on the proximity of early settlement debris, which seems to have been the case at Hierakonpolis as well, I have also allowed some of the casualness of normal life to intrude. Although the ring of colossi designate the precinct it is not an exclusive zone. It is the centre of a religion for the community, a place for ceremonies related to the agricultural year and to other events in the life of the community and in the lives of individuals, and perhaps for the commemoration of important ancestral figures. By contrast, the early temple as restored by Williams (which coincides with the views of O'Connor 1992 and Baines 1997, 219–20, 225 on the rôle and shapes of early temples in Egypt) already represents the style of Dynastic Egypt, where the temple was exclusive, formally laid out and tending towards the large in scale. At the heart of our divergence in views is not just architecture but a view of what Late Predynastic society was like.

Architectural traditions

This is not the first attempt to visualize the early Coptos temple. Williams (1988) has followed this path but with a different result. He has taken as a model an Early Dynastic representation of what appears to be a shrine set within a courtyard, all constructed of timber and matting, and has scaled it up to be commensurate with the colossi. These he places in a row across the courtyard in front of a rectangular shrine, the whole surrounded by the fenced enclosure. Its enclosed aspect and formal, symmetrical, rectilinear arrangement make it an obvious forerunner of classic Egyptian religious architecture. It helps to cement the link between Predynastic and Dynastic practice, and so to affirm the historic truth of later tradition. My own reconstruction, which relies much more on the field evidence, emphasizes the diversity of early traditions.

The characteristic approach of Pharaonic Egypt to designing sacred spaces was the sacred box: the enclosed and largely roofed space in which the sacred images stood and where priests performed a prescribed offering-ritual. By contrast, for many cultures, from the East and West Mediterranean and Europe, sacred space was predominantly open and attention was primarily arrested by standing posts or pillars or slabs. The greatest expressions are to be found in the megalithic monuments of the western Mediterranean and northwest Europe, but in recent years it has become apparent that one does not have to look so far outside the Nile Valley for early examples; no further, in fact, than bordering desert regions. To the northeast, open shrines with standing stones, set up singly or in groups, have been discov-

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ered in the Negev and Sinai (including the Uvda Valley), the individual stones ranging in height from several metres to a mere 10 cm (Avner 1984; Avner 1990). They cover a substantial spread of time but seem to have peaked in the fourth and third millennia. In the opposite corner of a map of Egypt, in the southwestern desert, a small-scale example (of the seventh millennium BC) has been found at Nabta Playa (Davies & Friedman 1998, 20–21; Wilkinson 2000, 16). Not far away, a huge sculpted stone lay buried in a pit beneath a mound. Closer still to the Nile Valley, the people of the early C-group culture of Lower Nubia, living near the end of the Old Kingdom (*c.* 2200 BC), also marked out sacred spaces on the desert by means of flat standing stones, with a wide rounded top and slender stem. At the best preserved site, Aniba, they seem to have formed deep lines running northwest to southeast, although they quickly attracted burials and became rather lost and discontinuous within a dense spread of stone tumuli (Steindorff 1935, 38–40, Taf. 8–15 & Blatt 5, where their careful orientation is clear; also Bietak 1968, 24–5, fig. 6; 94).

As a widespread form of construction, standing stones have attracted a diverse range of explanations, the scope made particularly broad by the fact that mostly they belong to prehistory. One favoured direction is towards astronomical significance. Already a calendrical interpretation has been placed on the Nabta example, and it has been seen as significant that the stones of the Negev circles face generally towards the east , 'usually toward the winter sunrise' (Avner 1990, 133). By contrast, where the Near Eastern tradition survived into historic times and written records become available, the astronomical hypothesis vanishes. The constructions in Sinai and the Negev have been seen as early manifestations of the *masseboth*, sacred standing stones of Palestine, much discussed over the years on account of statements about them in the Old Testament (Graessa 1972; Mettinger 1995; Lewis 1998). Biblical references reveal quite a range of meanings for the term *masseboth*, some of them really equivalent to the modern use of the word 'stela' in ancient Egyptian contexts; for example, where tombstones and boundary markers are meant. Two passages, however, specifically refer to 'the *massebah* of Baal' and so seem to designate them as symbols of a named divinity. In other contexts they can be interpreted as representing ancestors (de Moor 1995). Amongst these usages, which are largely defined by ancient texts and are the subject of study by a very different world of scholarship, it is disconcerting to find that the astronomical discussions so favoured by prehistorians seem to have no place at all.

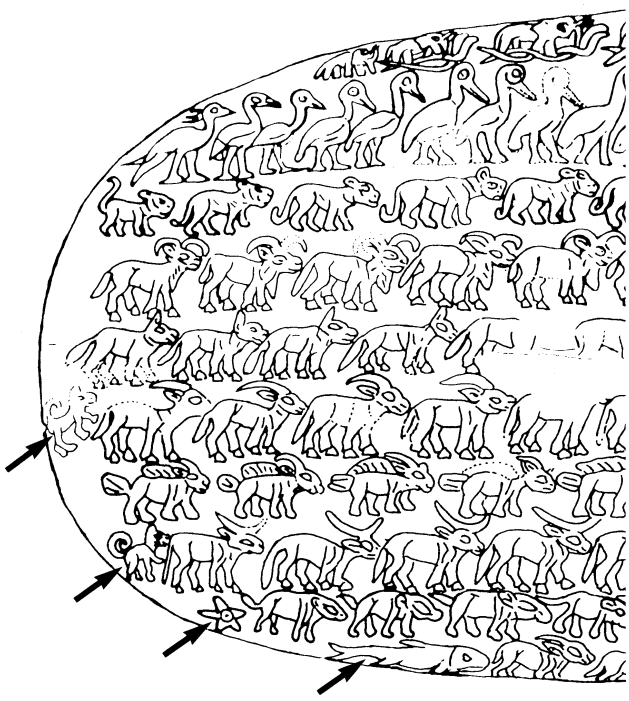


Figure 14. *An example of rows of animals: part of the Abu Zedan ivory knife handle, after Churcher 1984 (cf. Asselberghs 1961, pl. XXIX). The arrows point to the 'control' signs.*

The tradition of standing stones was not actually abandoned by the Egyptians, but absorbed into the vocabulary of forms as it developed in subsequent centuries. At Hierakonpolis it is probably represented by two later examples, but now the form is that of flat slabs, the characteristic shape of the Egyptian stela. One was plain and not datable, the other bore scenes and hieroglyphic text of King Pepi II (Quibell & Green 1902, 10, 53, pl. LXVII; Adams 1974, frontis.; Adams 1995, 77). The tombs of the Early Dynastic kings at Abydos were each provided with one or two pillars or slabs, inscribed with the king's name and given varying degrees of geometric treatment, one of the last (of Peribsen) retaining something of the character of a rounded natural pillar (Petrie 1901, pl. XXXI; cf. Fischer 1963, 41–3). The merging of *masseboth* with the Egyptian stela tradition is perfectly illustrated at Sinai, at the Egyptian temple of Hathor at Serabit el-Khadem, where standing slabs bearing hieroglyphic texts and some Egyptian representations dotted the stony landscape and were, in some cases, gathered into separate shrines (Valbelle & Bonnet 1996).

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At this point it can be objected that I am grouping together different things, and that there is a considerable difference between standing stones when they are plain and when they have human shape and become statues. Does not the different relationship which springs up between viewer and statue affect the likely placing of the latter, making it a focus of attention rather than an adjunct to a space in which the focus is elsewhere? Thus arranging the colossi at Coptos into an arc is implausible. Part of the answer that I would make is that we do not really know what range of interpretations the creators of the standing stones of the ancient world put upon their creations, although we might suspect that if was often many-layered. In the case of the ancient Near East one has to allow for a tradition of aniconic allusion to divinity, which hinders us from knowing what meaning was attached to individual stones at the time. The pillars erected in a line at the centre of the 'high place' at Gezer, for example, for which 'a cultic interpretation still seems best' (Dever 1993, 501), are clearly there to focus the attention yet have no sculpted form. But the possibility of giving stone pillars attributes of humanity was, in fact, realized explicitly in the pre-pottery Neolithic sites of Nevali Çori and Göbekli in Upper Mesopotamia (Beile-Bohn *et al*. 1998) mentioned above. It is perhaps present in the free-standing stelae at Aniba, the stones of which have been selected (and modified, too?) to conform to a particular profile, one broader at the top (and fully rounded) than at the bottom. When seen from a distance it would have presented a vaguely human outline, and many of the stelae were of approximately human height. The fact that they stood in a cemetery points to the possibility that they represented ancestors, or possibly guardians, an idea already put forward to explain the Coptos colossi (Ogdon 1985/6, 53).

The other part of the answer is that, from different times and places, societies have found it acceptable to place statues in open arrangements where one purpose seems to have been that they should act as guardians. At San Agustín in Colombia, free-standing statues and pillars given varying degrees of anthropomorphic treatment were placed singly, or in groups, on hilltops, on slopes, or in underground constructions (Reichel-Dolmatoff 1972). The embankment of a rainwater reservoir at Basa in the Sudan was guarded by lion statues (Crowfoot & Griffith 1911, 14–15). Returning to Nevali Çori and Göbekli, the standing anthropomorphic pillars there did not actually mark the perimeter of an open space. Although they were erected on hilltop sites, they seem to have stood either singly or in groups within small architecturally defined spaces. At Hierakonpolis, as noted, there are signs, in the form of sandstone foundations, of possible structures within the vicinity of the pillars. Petrie's plan of Coptos, to judge from his text, must omit a good deal of detail so that one cannot judge whether there was anything comparable near where the colossi were found. But the option is there, to add to the reconstruction of Figure 13 some degree of enclosure around each of the colossi and so to modify the impression that they formed a perimeter ring. I have done this around the nearest colossus but left the others without one. A neat illustration from Dynastic Egypt of the interchangeability of statue and stela as a focus for veneration comes from Abydos where, around a free-standing granite stela of the Middle Kingdom which fixed the limits of a sacred area (and guarded it by means of threats of fearsome punishment for transgression), private people had placed offering-tables, a naos, small stelae and ushabti-figures (Randall-Maciver & Mace 1902, 64, and pl. XXIII for location).

The petroglyphs and other early image sequences from Egypt

The petroglyphs on the sides of the colossi have been carved on a raised 'sash' which, on each one, emerges from the belt and must have hung very low, to within a short distance of the ground if the colossi are reconstructed without feet and pedestal. All three colossi have broken at a very similar place, close to the knees, the breakage on the Cairo example having taken place subsequent to Petrie's discovery. Only this one preserves part of the continuation below the break, which, in this case, occurred in the middle of the petroglyph panel. It is thus likely that petroglyphs continued below the breaks on both of the Ashmolean colossi and that, with these two, we have only the top half. In Figure 7 the remains of all three are presented together. For reasons given already, I accept that each set represents a single original group, and not an accumulated series of alterations and additions.

A powerful line of argument that has been developed is that the signs are the names of rulers. It began with Williams' reading of the name of King Narmer on the Cairo colossus (a reading which I see as probably incorrect), and has been developed by Dreyer (1995; 1998, 140–41, 173–80). As an important part of the argument Dreyer cites a range of labels, seal impressions, and ink and incised potmarks from the Late Predynastic period to the reign of Narmer,

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in which a recurring group occurs: a branched pole followed by one of a number of signs from a repertoire which is also represented on the Coptos colossi: shell, gazelle-head on pole, canid, elephant on mountain, lion and falcon-plus-another-sign. Some of the labels also bear numerals and, in any case, their basic nature implies that they are part of an administrative process. From this aspect he concludes that the branched-pole sign has a specific reading: it means 'plantation', and the following sign designates the owner of the plantation which has supplied the commodities. Thus some of the accompanying signs are the names of kings, despite the fact that so many of them occur in the same tomb (tomb U-j) rather than being evenly spread through the necropolis. It follows that the sash panels on the Coptos colossi record the names of kings, too, commemorated perhaps for their donations, building works or cultic acts. (The model of how Dynastic temples functioned is here very evident.) The supposed alterations to signs and inconsistencies in their placings on the colossi illustrate the history of later rulers seeking to add a record of themselves. In Dreyer's view, by the beginning of the 1st Dynasty, the colossi could have been two centuries old, as could the idea of writing.

According to this interpretation, the signs represent an example of a practice known from other societies in which writing has barely developed or not developed at all: the graphic representation of proper names. In considering the existence of a king 'Elephant/Elephant-mountain', for example, one is in the same cultural territory as the naming practice of native North Americans (Spotted-horse, Caught-the-enemy) who also exploited the graphic potential of names of this kind (Baron 1981, 188–200). For the Coptos colossi the interpretation flows logically from seeing the name of king Narmer at the head of the list. But remove Narmer and the case loses its most attractive support. The explanation is, moreover, only partial, for the variety of contexts in which these and related signs and groupings occur is wider. As an explanation it is thus suspect on the grounds of economy: it explains only some of the evidence.

The Late Predynastic period is notable for a repertoire of mostly animal designs that was used to decorate objects, often prestige items, as if they were an art form, yet in formal ways which imply rules of combination (syntax) but not sufficiently varied and densely applied as to indicate a proper writing system. Sometimes the predators amongst them attack victims, at other times all move in peaceful processions. Amongst the figures are animals on hills or mountain tops, an important link with the Coptos carvings (e.g. Quibell 1900, pls. XII.3, XVI.4; Baumgartel 1948, 543, fig. 3; 551, fig. 9). The Coptos designs can be read as a narrow version of this bestiary, much reduced in width by the shape of the sash panel. In the 'king-list' hypothesis, the position occupied by the signs is secondary; they could have been placed somewhere else, perhaps on a more conspicuous part of the colossi. But they could also be an integral part of the sash design, even perhaps a rendering into stone of painted signs on a length of textile (like the painted piece of Predynastic linen from Gebelein: Kantor 1974, 255, Taf. XXXIII; Petrie 1896, 7, suggested embroidery) worn on a special occasion, a prestige item like the combs, knife- and ceremonial mace-handles and even ceremonial ivory sickle on which a great many of the animal carvings appear.

The creatures shown are not domesticates and, as a broad group, belong far more to the desert than to the Nile valley. A few are imagined creatures. There is only a limited overlap with the animals which later, in historic times, emerge as sacred and were an important feature of the historic pantheon and which were very much rooted in the Nile valley. There is perhaps a parallel here with a Mesopotamian case cited by Postgate (1994) to illustrate mismatches of evidence. It concerns animal-combat scenes on cylinder seals of the Early Dynastic period which 'agree with nothing that has survived into the written literature of later Mesopotamia'. In Egypt they do perhaps actually survive, though in a very different and now marginal context, in desert hunting scenes in tombs of the early Middle Kingdom (*c.* 2000 BC) at Beni Hasan (Newberry 1893a, pl. XXX; 1893b, pls. IV & XIII) and el-Bersheh (Griffith & Newberry [1895], pl. XVI). Here, a group of mythological beasts (and in some instances given names) is hunted alongside conventional wild animals. They presumably personify the barely knowable forces that lay on the periphery of the world and which, in even later times, became the means for depicting the dark chaotic region through which the sun-god had to make his way during the night, and which were also associated with foreign enemies (Ritner 1993, 160, note 743). Another of the aspects of Min in later times was lord of the desert region, and therefore of the threatening forces which had their home there and which perhaps lie behind the carvings on the sash. This reinforces the view of Min's character referred to above, that he was basically a threatening guardian figure.

Returning to the Predynastic material, the fig-

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ures do not all have the same value or rôle. A number of 'rules', or at least regularities, in the way that they are arranged were explored long ago in a fine analytical study by Bénédite (1918; also Ciałowicz 1992). I would like to single out two distinctive elements. One is the way that, often added to one end of a row or group, is a discordant figure which, in various ways, seems to be controlling that particular row or group: by direct attack, by a seemingly threatening presence, or (in the unique case of the 'Two-dog Palette': Petrie 1953, pl. F; Asselberghs 1961, pl. LXXI) by playing a pair of pipes. These control signs are a more heterogeneous group than the rest. They comprise the hunting-dog and lion, catfish, a star or rosette sign, and (with some doubt attached) a stork and a serpent. The pipe-playing figure is anthropomorphic. At the transition to the 1st Dynasty the catfish and star/rosette are closely associated with the king, to the point that the catfish becomes one of the signs making up the name of King Narmer, whilst the star/rosette can be read as giving the key sound values of the royal god Horus (Loprieno 1995, 20; Kahl 1994, 55–6, 147; cf. Monnet Saleh 1990, 276; Smith 1992, 241–4; McFarlane 1995, 197). From this one could argue that previously the control signs as a group referred to kingship, but one cannot escape the possibility that Narmer and others were adapting to themselves signs and meanings which earlier had been used to signify something different, or at least of wider context. Control signs of this kind are present on two of the Coptos colossi: the dog/lion and possible serpent on Ashmolean 105e and the stork on the Cairo example. Both lead the groups rather than drive them. The second distinctive feature is that some of the signs are composites. The elephant tramples on serpents or on mountains; mountains are placed beneath or beside other animals and birds; the branched tree or pole likewise stands beside animals and birds; the falcon stands above a variety of shapes, elongated and rounded, whether with identical significance or not is hard to tell.

At the very least it should be recognized that this Late Predynastic material represents a structured and coded view of the world which transcended administration. As a system it manifested a direction of thought which seems to come very naturally to societies which have not developed writing. The markedly differentiated shapes of animals, which an artist can capture in profile renderings, and the fact that they are alive and manifest different ways of behaving provide a ready-made set of symbols which can be used both to depict their own world and as metaphors for abstract ideas, with or without an element of narrative myth. In a classic formulation of anthropology: animals are good to think with. Comparative studies caution against straightforward inferences, however. Drouin (1989) cites the curious and cautionary case of the Tuareg of the Saharo-Sahelian area of the Niger who, although remote from the habitat of elephants, retain them within oral traditions but with inconsistent characteristics. In proverbs and riddles the elephant is the 'metaphor for that which is the biggest, the heaviest, the most cumbersome of all, the least easily hidden, and which creates irresolvable situations . . . In tales, the elephant is generally as stupid and naïve as it is big; it is abused now by the crafty jackal, now by the tiny squirrel'. In a different context, however, a mythical narrative, a female elephant becomes the ultimate object of desire of a giant culture hero of great intelligence and sexual appetite. Part of the interest here is that in Saharan rock art of a much earlier period the elephant is often associated with sexual demonstrations involving ithyphallic characters.

With suitable caution, we need to look for an explanation which takes account of the variety of contexts, the fact that these images could appear as if symbols in prestige decorative compositions (including the colossi) and as commodity sources in administrative process, could label aspects of kingship (e.g. the scorpion on a spike on the Scorpion macehead) and even, by the 1st Dynasty, become elements in royal names, and could survive in attenuated fashion in the desert-hunt scenes of the Middle Kingdom.

One explanation, which retains the breadth of context that is necessary, is to be found in Roth's study (1991) of 'phyles', a system by which certain areas of society (at least male society) were organized in ancient Egypt in the earlier periods. She takes them as survivals of an even earlier kinship-based clan or totemic classification of society which looked particularly to animal emblems of patron divinities as identifying symbols. One set of standards specifically identified as for phyles is depicted in an administrative archive (the Abusir papyri) of the 5th Dynasty, *c.* 2400 BC, and this comprises a series of paired standards bearing images of animals: falcon-headed griffins, cobras, scorpions, baboons and (probably) falcons (Roth 1991, 199–205). Part of her argument is that, in historic times, certain phyles (a group of five) because of long association with the kingship became far more prominent than others, which have largely been lost to sight as a result. Moreover, the emblems were not the actual names

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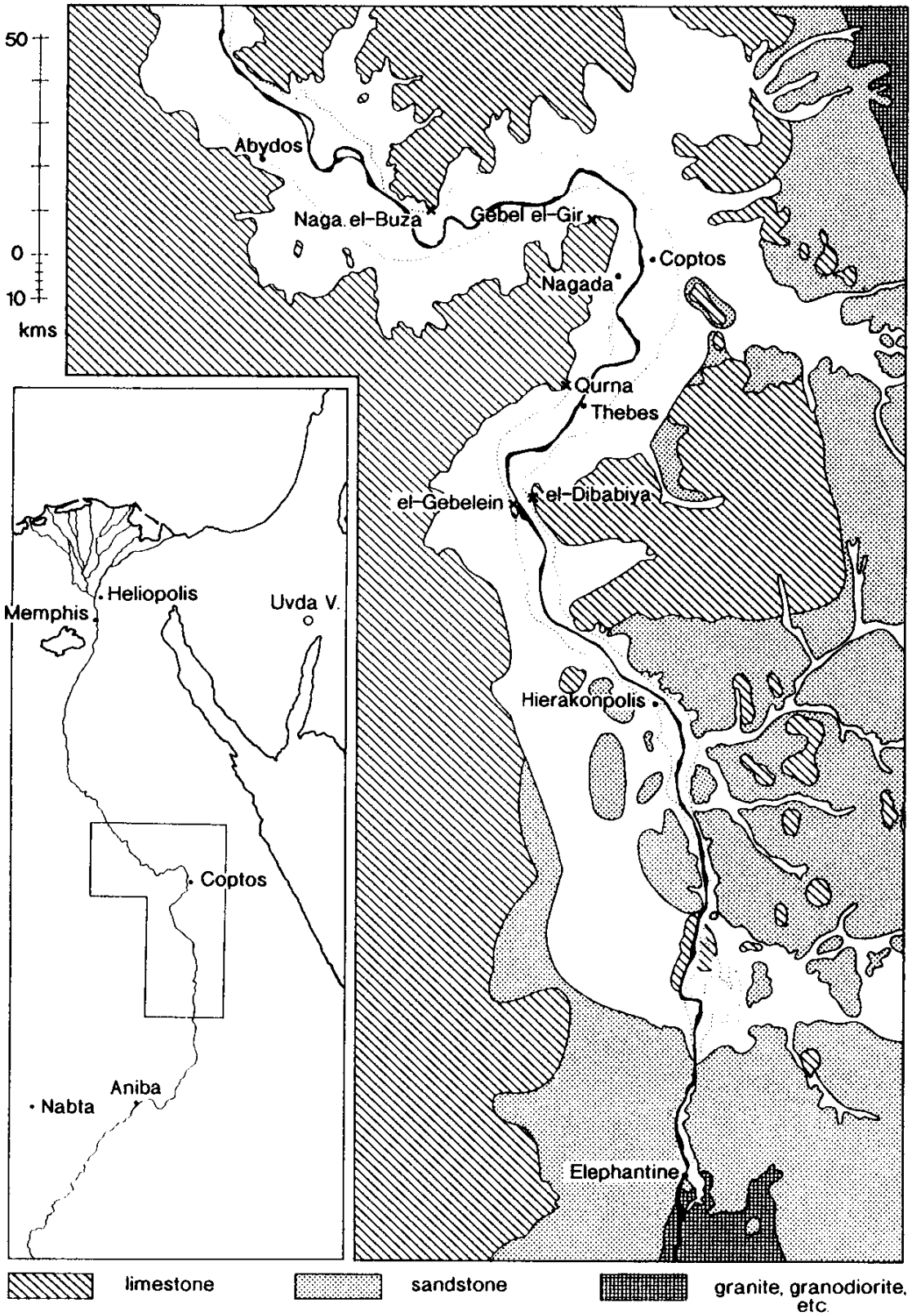


Figure 15. *Map showing key sites mentioned in the text and the bedrock geology of the region. The five crosses mark the sites of ancient quarries in the Serai and Tarawan Formations.*

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of the phyles; these seem to have been adjectival, and so one could add the comment that they could have gone through transformations as hieroglyphic writing was developed.

As a working hypothesis, more of the material is explained if we assume that the predynastic animals were emblems of spiritual forces which could also act as signifiers of groups of people. Some of the latter provided goods for the burial of the ruler in tomb U-j at Abydos, but it is to the former that we should look for the explanation of the signs on the colossi. This direction of argument has the merit of addressing the dual nature of the contexts, sacred and administrative, within which these symbols appear.

Concluding remarks

A glance at a map of Predynastic sites in Egypt (Fig. 15) will show that Coptos lies within the heartland of the Nagada culture, only ten kilometres across the river from the Predynastic town and huge cemetery of Nubt (Ombos, conventionally referred to as Nagada, a modern town some way away). The presence of a Predynastic 'royal' cemetery here, as well as the later rôle of the local god Seth in the mythology of kingship, point to this having been the centre of a Predynastic local kingdom. This being the case it is quite possible that Coptos in the Late Predynastic period lay within its territory. It is thus hard to decide if the considerable expenditure of effort and skill on carving and erecting the colossi was an act of pious display organized by someone from outside or from within the community of Coptos itself. This question of how developed a social and political organization was needed recurs whenever prehistoric megalithic monuments are discussed. The lesson of Nevali Çor and Göbekli, sites of a pre-pottery culture, is that the ability to carry out a task of this kind is not symptomatic of a particular 'stage' in the development of society.

The microscopic study of the stone and of likely matches with known ancient quarries, which is presented by Harrell in the Appendix, demonstrates that it is highly likely that the colossi and the animal statues from Coptos come from the same quarry, within a stratum of limestone represented by several ancient quarries in the region. Moreover, the same stone was used for the Hierakonpolis male statue. Hierakonpolis actually lies outside the limestone area of Egypt, within the area of Nubian sandstone instead, and on the other side of the river from Coptos. One is led to envisage a group of people able to extract large blocks of stone, sculpt them with considerable skill and imagination, and transport them by land and by water for at least 60 km, which is half the distance between Coptos and Hierakonpolis, the respective distances from the quarry area of el-Gebelein/el-Dibabiya being 70 and 50 km. The great danger in such an operation is that unevenly applied stresses will cause the stones to break in half. It is a fair assumption that, in order to avoid a mishap of this kind, they were lashed to wooden beams at least as long as the colossi, perhaps even made into a sledge. A suitable technology of handling and transportation is thus, almost of necessity, invoked.

The scale of the cultural and intellectual changes that took place as the familiar culture of Egypt of the Pharaohs emerged in the Nile Valley has been much remarked upon since early material started to come to attention in the late nineteenth century. For a while, one favoured explanation conjured up an élite minority of a superior Dynastic Race who entered Egypt just prior to the 1st Dynasty and brought with them the fresh knowledge from which the essence of Egyptian civilization developed. Although scholars have generally turned their backs on and scorned this interpretation (Trigger 1968, 76–86 reviews the literature and marshals the contrary arguments; cf. Wilkinson 1999, 14–15), we do well to remember it, for it highlights the magnitude of changes that we have to explain by other means, and as yet unsatisfactorily.

Nonetheless, what we see as the emergence of Egyptian civilization also took place against a background of considerable continuity in basic material culture, which was also reflecting society's growing prosperity. If evidence is needed for this we need look no further than the difficulties which arise when trying to decide, when the sequence of basic material culture is spread out, just where prehistory ended and the Dynastic sequence of ancient Egypt began. In what is essentially a continuum, this moment, so decisive for our perspective, seems to be virtually unmarked (Wilkinson 1996, 9–13, 63–4 reviews the evidence). The momentous developments which did occur seem primarily to have been in the realm of ideas, their expression in art and architecture, and in the related superstructure of social control, which together created the Great Tradition of ancient Egypt.

How does such a Great Tradition arise? The organizer of the 1995/6 exhibition *Africa: The Art of a Continent* introduced the Egyptian section with the following words:

> The civilisations of the Nile begin this expository tour with an explosion of artistic invention in

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> predynastic Egypt, one of the world's earliest laboratories of formal experiment, especially in the representation of the human figure. This is the Burgess Shale of art, a repertoire of figuration and abstraction that has scarcely been extended in modern times. (Phillips 1995, 13)

The Burgess Shale metaphor, referring to a geological formation of the Cambrian Period which seems to contain a proliferation of life-forms many of which were doomed to extinction, leaving evolution to build on a more narrowly selected basis, offers a suggestive metaphor. Lacking the constraints of an academic tradition of art and iconography — this was something which lay in future — the scope was there in Neolithic Egypt for local experiment leading to significant variation in style and, as the Coptos colossi show, in scale, too (the equivalent of the giant *Anomalocaris*, if one wishes to stay with the Burgess Shale). By this view Late Predynastic Egypt contained the potential for developing other styles. From the colossi and the type of sacred space they belonged to, and from many artefacts of approximately the same period and their animal-symbolic representation of the universe and society, different cultures could have arisen. What emerged in the Early Dynastic Period was one set of preferences selected and refined by a controlling group, accompanied by a loss of diversity.

Appendix: Petrology and provenance of limestone used for the Coptos-Hierakonpolis sculptures

by James A. Harrell

Petrology

Thin-section petrography

Drilled cores (between 1 and 2.2 cm in diameter, and 2 and 6 cm in length) were collected from each of the following six sculptures in the Ashmolean Museum: the Small Min (1894.105d), Large Min (1894.105e), Min Head (1894.105c), Lion (1896.105b) and Bird (1896.105a) from Coptos, and the Striding Man (E.3925) from Hierakonpolis. These cores were selected from a number obtained (together with stone dust) from the undersides of the sculptures, in the course of fixing them to new plinths. The cores were thin-sectioned and then examined under a polarizing microscope.

The samples are composed of essentially pure calcite and are richly fossiliferous with planktonic foraminifera, mainly Globoratalids with lesser amounts of Globigerinids. The foraminifera are mostly less than 0.25 mm across but range up to 0.5 mm. The foraminifer exoskeletons are partially recrystallized and infilled by sparry calcite. Trace amounts of fish bones and scales (composed of collophane, a cryptocrystalline phosphatic material) are present in all samples. Trace to scarce amounts of other fossil types are also present: (1) Turritellid gastropods (commonly 1–2 mm across) in the Small Min, Min Head, Lion and Bird; (2) benthic Miliotid foraminifera (up to 0.25 mm across) in the Min Head and Striding Man; and (3) benthic Nummulitid or Operculinid foraminifera (up to 2 mm across) in the Large Min. In the Min Head, Bird and Striding Man, there is also abundant skeletal hash consisting of thin-walled pelecypod or ostracod shell fragments (up to 0.02 mm thick but mostly less than 0.01 mm). In the Lion there are two calcite veins: one 0.05 mm wide and the other with a width of 0.02 mm. The micritic matrix surrounding the foraminifera in all samples has abundant irregular, minute (less than 0.05 mm across) particles that may be organic and of fecal origin. These particles give the matrix its generally cloudy, dark brownish-grey appearance.

The compositional differences among the thin sections are minor and may be nothing more than sampling artifacts of the kind observed when analyzing different parts of a single heterogeneous rock body. Conspicuous heterogeneity was seen, for example, in the Large Min statue during the author's megascopic examination: there were areas with abundant, easily seen fossil fragments interspersed among areas with few or no visible fossils.

The thin-section petrography is consistent with the megascopic appearance of the sculptures. The limestones are fine-grained and pale yellowish grey in colour with common, very thin black veins. The veins are probably white calcite that has been discolored at the surface. Portions of the sculptures, as previously mentioned, are quite fossiliferous with fragments of foraminifera and mollusca up to 1 cm across but mostly much smaller. The same type of limestone appears to have been used for the two 'Coptos lions' (accession no. UC 35294A, B) belonging to the Petrie Museum at University College London.

Other analyses

Christopher J. Doherty, of the Research Laboratory for Archaeology and the History of Art at the University of Oxford, described samples from the Small and Large Min statues and Min Head using thin-section petrography and scanning-electron microscopy, and analyzed all six sculptures by Fourier transform infrared analysis. His results are entirely consistent with those reported above with one exception. He

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found that the Small Min contains nine per cent silica and alumina (SiO_2 + Al_2O_3, mainly from illite/smectite clay but with some silica coming from quartz) and the other sculptures have trace amounts of clay and quartz (less than one per cent). No clay or quartz was seen in any of the thin sections; however, it is entirely possible that they are present in other parts of the sculptures. Egyptian limestone, including those in the geologic formations from which the Coptos-Hierakonpolis sculptures must come, contain silica in the forms of chert (megascopic nodules to microscopic patches of secondary microcrystalline quartz), detrital grains of quartz silt and sand, and clay minerals.

Conclusions

The limestones used for the Coptos-Hierakonpolis sculptures are all remarkably similar and almost certainly came from the same small quarry or the same part of a larger quarry. In the two standard limestone classification systems (Scoffin 1987, 8–11), the rock may be described as 'foraminiferal mudstone to wackestone with a micritic matrix' (i.e. matrix crystals less than 0.020 mm across; Dunham classification) or a 'sparse foraminiferal biomicrite' (Folk classification). A shorter rock name that is both meaningful and understandable to all geologists is 'foraminiferal micritic limestone'.

Provenance

Geologic formations

The limestones quarried 'anciently' in Egypt come from six geologic formations (Harrell 1992). These are, from south to north in the Nile Valley (and also, coincidentally, from geologically oldest to youngest): the Tarawan, Serai (lower Thebes Group), Drunka (upper Thebes Group), Minia, Samalut, and Mokattam. From their textures and fossil contents, it is evident that the limestone used for the sculptures represents carbonate deposition in deep, quiet marine waters. As such, the limestone could only have come from the Tarawan, Serai or Mokattam formations. The Tarawan and Serai are obviously the most likely candidates because their outcrops occur in the Coptos-Hierakonpolis region (or, more precisely, in the hills bordering the Nile River between Esna and Abydos) and also because the limestone used in the sculptures is more similar to these formations than to the Mokattam.

Photomicrographs of limestones seemingly identical to that of the sculptures have been published by Cuviller (1930, pl. II, from the Serai Formation at Gebel Qurna on the west bank opposite Luxor), Mansour *et al*. (1976, pl. I-4, from the Serai Formation at either Gebel Qurna or Gebel Kilabiya near Esna), and Klemm & Klemm (1993, fig. 207, from the Tarawan Formation at the el-Dibabiya quarry). From biostratigraphic studies of Palaeogene rocks in Upper Egypt (Krasheninnikov & Ponikarov 1965; Fahmy *et al*. 1969; Amer *et al*. 1970; Mansour *et al*. 1976; Snavely *et al*. 1978; and Said 1990), it is clear that micritic limestones rich in Globoratalid and Globigerinid foraminifera occur mainly in the Tarawan Formation and the lower part of the Serai Formation. One of these, then, must be the source of the material used for the sculptures. The sculpted limestone, however, does differ in a couple of respects from the 'typical' limestones coming from these formations in that it is not dolomitic and it lacks quartz silt/sand grains. Still, given the inherent heterogeneity of geologic formations, it would not be at all surprising to find a limestone like that used for the sculptures in the Tarawan or Serai.

Ancient quarries

There are five known ancient limestone quarries in the Coptos-Hierakonpolis region (Harrell *et al.* 1996; see Fig. 15). These are, from south to north: at el-Gebelein near el-Ghrera village (Serai Formation: Middle Kingdom to Ptolemaic?), near el-Dibabiya village (Tarawan Formation: 19th and 21st Dynasties, and Roman), near Qurna and Wadi el-Muluk (Serai Formation: 18th and 26th Dynasties, and Roman), near Dendara at Gebel el-Gir (Serai Formation: 30th Dynasty to Roman), and near Nag el-Buza village (either Tarawan or, more likely, Serai Formation: age unknown but probably late antiquity). With the exception of Dendara, the limestones in these quarries have been previously described by Harrell (1992, tables 3 & 4). The Dendara quarry has since been investigated by the author. Klemm & Klemm (1993, 183–7) describe samples from the Qurna/Wadi el-Muluk and el-Dibabiya quarries. Their descriptions are consistent with those of Harrell (1992) except for el-Dibabiya where they report less clay and more Globogerinid and Globoratalid foraminifera. As previously mentioned, the el-Dibabiya limestone shown in Fig. 207 of Klemm & Klemm (1993) looks remarkably similar to that in the Coptos-Hierakonpolis sculptures.

With the possible exception of el-Dibabiya, there is no reason to believe the limestone used for the sculptures came from any of the known ancient quarries in the Coptos-Hierakonpolis region. Current indications are that the el-Dibabiya quarry dates from

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the New Kingdom onwards but, of course, it is possible that it was also worked earlier and traces of this activity have not survived. It seems more likely, however, that the limestone came from another locality. If the quarry was very small, it may now be difficult to recognize and may not even still exist.

According to the best available geologic maps (Klitzsch *et al*. 1986–7: Asyut and Luxor sheets), outcrops of the Tarawan Formation occur only on the east bank of the Nile between Nag el-Himeidat and el-Shaghab (in the same general area as the el-Dibabiya quarry), in the hills on the west bank opposite of Qift, and in the hills on the east bank east and northwest of Qena. In contrast, outcrops of the Serai Formation are found throughout the Coptos-Hierakonpolis region, especially on the west bank and in the same areas where the Tarawan occurs, but are closest to the Nile River on the west bank at el-Gebelein, on the east bank opposite el-Gebelein near the el-Dibabiya quarry, at several places on the west bank between Qurna (opposite Luxor) and el-Ballas (opposite Qift), and on the east bank opposite Nag Hammadi.

Conclusions

The source of limestone used in the sculptures is almost certainly either in the Tarawan or the lower part of the Serai Formation, and is to be found somewhere in the cliffs and hills bordering the Nile Valley between Esna in the south and Nag Hammadi in the north. El-Gebelein is a particularly likely source because here the limestone outcrops come closer to the Nile River than anywhere else and there is a Late Predynastic-Early Dynastic cemetery. The el-Dibabiya area, across the Nile from el-Gebelein, is another good possibility for the source.

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