

# Excavation of the cemeteries at 4-F-6 and 4-F-38

## Site 4-F-6

This site was discovered and described during the 1999 survey (Welsby 2003, 24, pl. 2.25). The tomb monuments were arranged along the summit of the low, but narrow and steep-sided, ridge and also built up against the out-



Plate 1. Site 4-F-6. General view along the ridge from monument (3) to (1).

cropping rock along its southern side.<sup>1</sup> Fourteen features were noted in 1999 to which a further four were added during the excavations of 2002/3.<sup>2</sup> In the latter season all the tumuli were excavated. The tomb monuments were, with one exception, tumuli of Type FD02. Most were placed on their own but in a few cases they abutted their neighbour. The general form was that of a circular monument with walls formed of stone slabs arranged concentrically in rough courses, each one slightly overhanging that below until at the top the narrow circular opening was capped with one or more slabs. Frequently boulders and upstanding pieces of bedrock were utilised as part of



Plate 2. Site 4-F-6. Monuments (1) and (2).

<sup>1</sup> For a site plan see the 4-F gazetteer.

<sup>2</sup> Supervised by Piotr Osypiński.

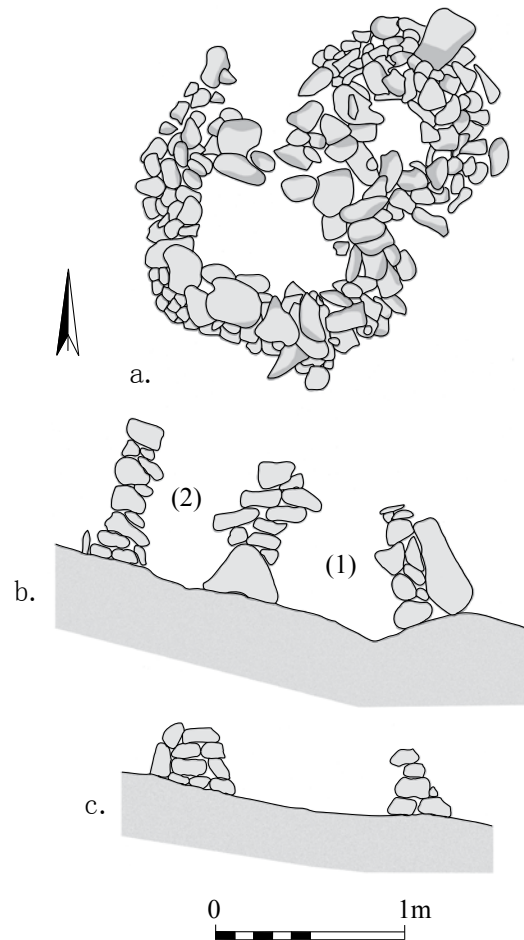


Figure 1. Site 4-F-6. Monuments (1) and (2). a, plan; b, section of both monuments NE-SW; c, section of (2) NW-SE (scale 1:40).

the structure. Tumulus (2) is a little different (Figure 1, Plate 2). At the base it is sub-rectangular tending towards an oval at a higher level. Some of the stones used in its construction are arranged radially and it is hence similar to a tumulus of type FM02. Tumuli (11), (15) and (16) were type FD03, built up against the bedrock and hence semicircular in shape. As the monuments were built on the outcropping bedrock little attempt was made to excavate a grave below the surface although in some cases the loose stones and thin layer of earth and gravel overlying the bedrock were removed. Elsewhere depressions in the bedrock resulted in the internal height of the chamber exceeding that of the superstructure enclosing it. Owing to the nature of the burials they were very vulnerable to robbing and this has happened in every case. Not one single bone appeared to be *in situ* and the amount of bone material was in any case very small. Most of the bodies were presumably dragged out of the chamber and have largely disappeared. In tumulus (7) however, parts of the skull and some ribs remain in the southern part of the chamber. Grave goods fared equally badly. Very little was recovered from within or adjacent to the tumuli. We thus have no indications as to how the bodies were placed in

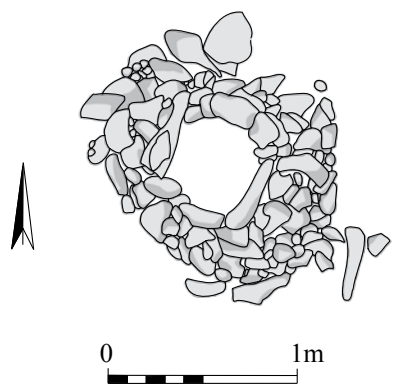


Figure 2. Site 4-F-6. Monument (3), plan (scale 1:40).

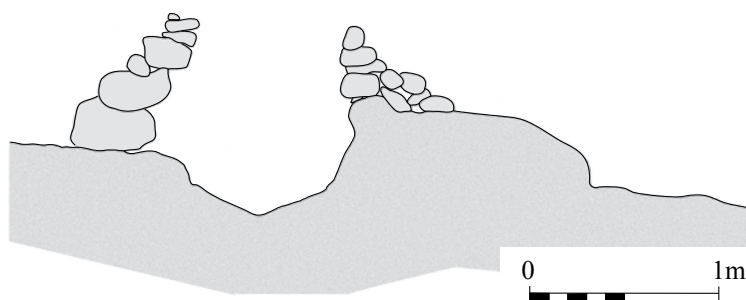


Figure 3. Site 4-F-6. Monument (3), section (scale 1:40).

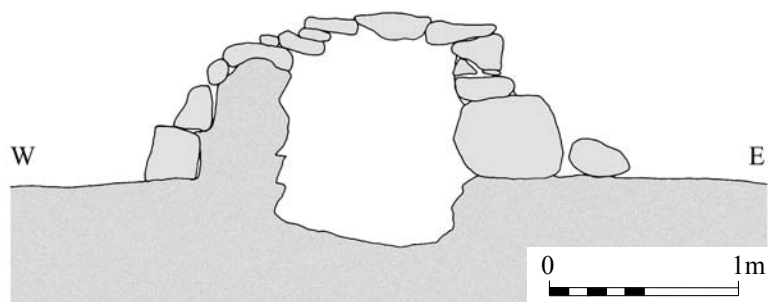


Figure 4. Site 4-F-6. Monument (10), section (scale 1:40).

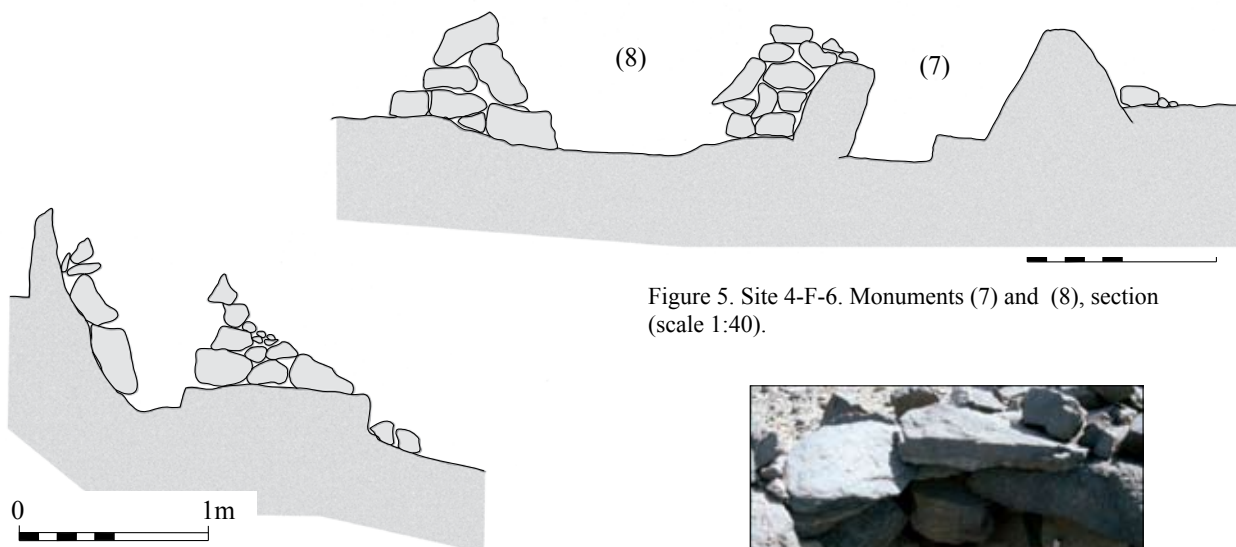


Figure 5. Site 4-F-6. Monuments (7) and (8), section (scale 1:40).

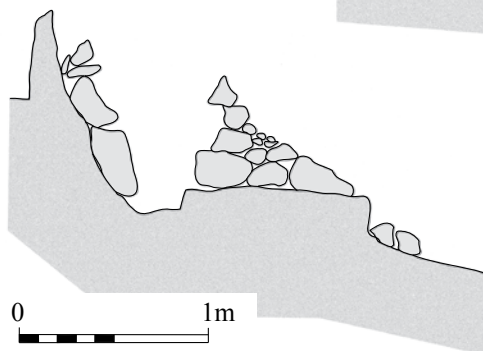


Figure 6. Site 4-F-6. Monument (4), section (scale 1:40).

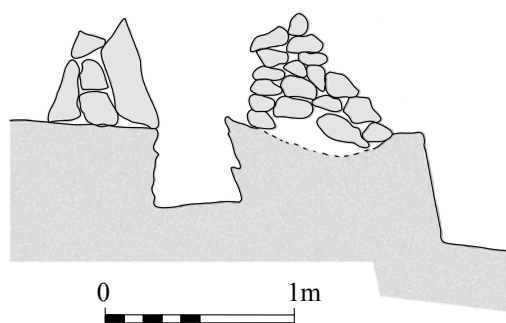


Figure 7. Site 4-F-6. Monument (5), section (scale 1:40).



Plate 3. Site 4-F-6. Monument (5), detail of the interior.

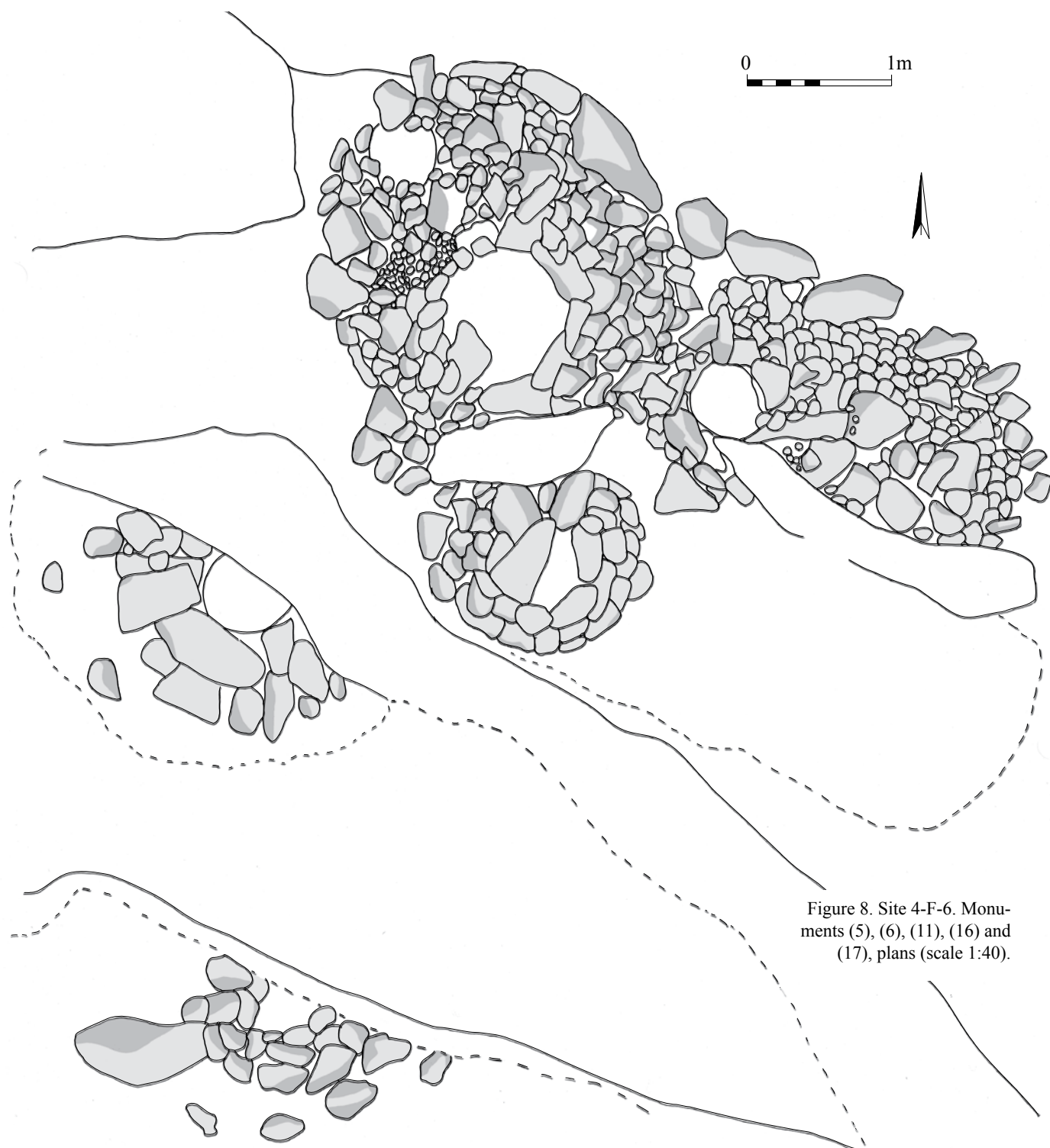


Figure 8. Site 4-F-6. Monuments (5), (6), (11), (16) and (17), plans (scale 1:40).

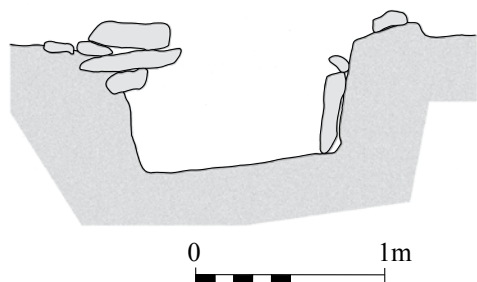


Figure 9. Site 4-F-6. Monument (14), section (scale 1:40).

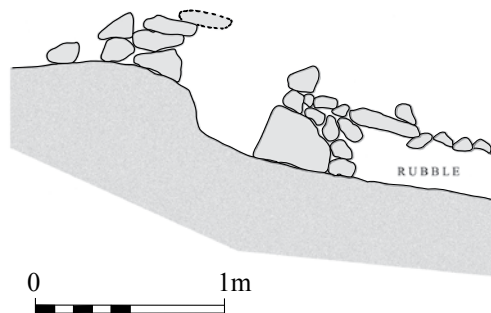


Figure 10. Site 4-F-6. Monument (6), section (scale 1:40).





Figure 12. Site 4-F-6. Monument (9), section (scale 1:40).

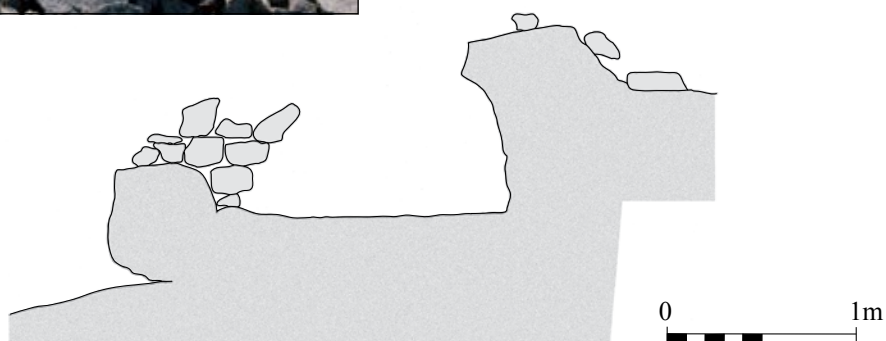




Figure 13. Site 4-F-6. Monuments (13)-(15), plan (scale 1:40).

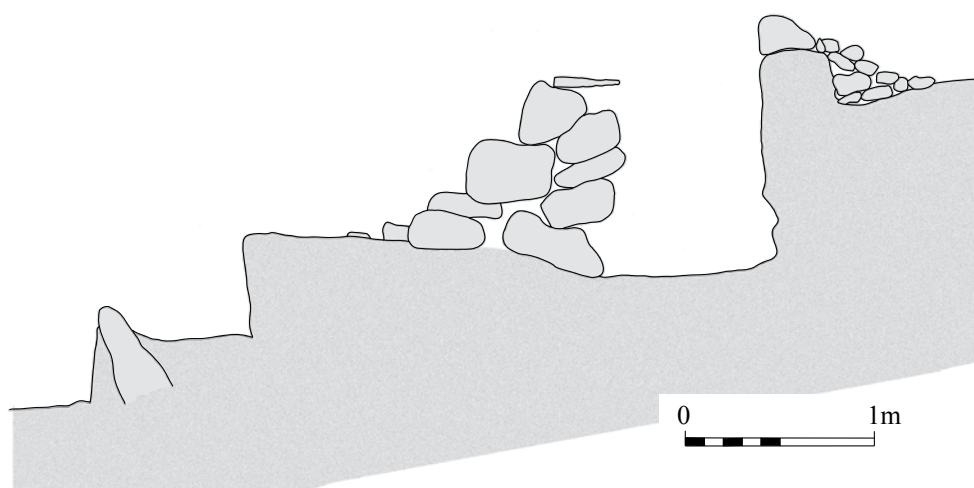


Figure 14. Site 4-F-6. Monument (12), section (scale 1:40).

TABLE 1. SITE 4-F-6: DETAILS OF THE TOMB MONUMENTS AND ASSOCIATED FINDS.

Feature	Excavated	Dia.	Length	Width	Height (int.)	Height (ext.)	Fill contained
(1)	Yes	2m	-	-	1m	900mm	Human bone, pottery sherds
(2)	Yes	-	3.2m	2.1m	900mm	900mm	Human bone, pottery sherds
(3)	Yes	-	3m	2.5m			
(4)	Yes	-	1.5m	1.4m	1m	800mm	Bone, pottery sherds, beads
(5)	Yes	-	1.7m	1.5m	1m	600mm	Human skull, pottery sherds, beads
(6)	Yes	1.4m	-	-	600mm	600mm	Mammalian long bone, other bone fragments, pottery sherds, beads
(7)	Yes	2m	-	-	700mm	500mm	Human bone, pottery sherds, bead
(8)	Yes	2.2m	-	-	700mm	600mm	Human bone, pottery sherds
(9)	Yes	-	2.8m	2.3m	1.4m	1.1m	
(10)	Yes	-					
(11)	No	-					
(12)	Yes	-	2.6m	2.4m			Pottery sherds
(13)	Yes	-	-	-			Natural depression in bedrock, bones and pottery sherds probably from (12), (14) or (15)
(14)	Yes	2m	-	-	1m	200mm	Many human bone, pottery sherds including one large wall sherd with bones on it
(15)	Partly	-	1.8m	1.3m		200mm	Human bone, pottery sherds
(16)	No	-					
(17)	No	-					
(18)	No	-					

the tomb chamber. If placed on the ground surface they must have been tightly contracted unless they were the bodies of very small children. They could however also have been placed in a sitting position. Little can be said about the grave furniture but personal jewellery appears to have been commonly included with the deceased. The pottery sherds from monument (6) come from amongst the rubble associated with the collapse/robbing of the tomb which lies a little down the slope.

The fill in the chambers consisted of wind-blown sand and rubble from the collapse/destruction of the super-structures.

### *The finds*

#### **SF:**

##### Monument (4)

beads, bone 294,296; glazed composition 298; ostrich eggshell 295; stone 297

##### Monument (5)

beads, glazed composition 291,292; stone 293

##### Monument (6)

beads, glazed composition 288; ostrich eggshell 289; stone 290

##### Monument (7)

bead, glazed composition 273

#### **Pottery forms:**



## Site 4-F-38

The site was discovered and surveyed in 1999 (Welsby 2003, 33-4, fig. 2.26, pl. 2.33). Ten Type FT04 tumuli were recorded of which the westernmost, (1), and (6) were excavated in 2002/3.<sup>3</sup>



Plate 5. Site 4-F-38. View across site with grave 3 beneath tumulus (1) under excavation, looking east.

Tumulus (1) [Grave 3 - Dia: 1.7m, Depth: 300-500mm. Monument - Dia: 5.1m, H: 450mm]

An excavation trench 6m square was laid out over the tumulus. The grave cut was roughly circular, vertically sided on the east side, elsewhere sloping down to the roughly flat bottom. (Figures 15 and 16) On its west side the cut was extended by a narrow trench 500mm wide of the same depth as the rest of the grave (Plate 5). No trace of the body or of grave goods remained *in situ*. Set into the top of the grave fill, and extending beyond the edge of the grave cut, was a number of large stones and gravel (Figure 16). On this layer, and sealed below the superstructure of the tumulus, was a small concentration, less than 100mm in diameter, of date stones burnt *in situ*.

The tumulus was constructed of stones up to 400 x 300mm in size forming a pile around the silt-filled centre 1.9m in diameter (Figure 17, Plate 6). Sand and gravel lay among the stones as well as bone fragments, pottery sherds, a metal object and broken grinding bases. The robber pit was dug in the centre of the tumulus causing little disturbance to the stone superstructure. Its fill contained bone fragments and pottery sherds.

Tumulus (6) [Grave 8 - Dia: 1.3m, Depth: 590mm. Monument - Dia: 4m, H: 300mm]

An excavation trench 5 x 5m square was laid out over the tumulus. The grave cut (Plate 7) was sub-triangular at the surface, roughly circular towards the bottom. The sides were steep or vertical but there was a broad 'shelf' half way down on the south side. The bottom was roughly flat (Figure 18). On its west side the cut was extended by a narrow trench 500mm wide, 600mm long and of the

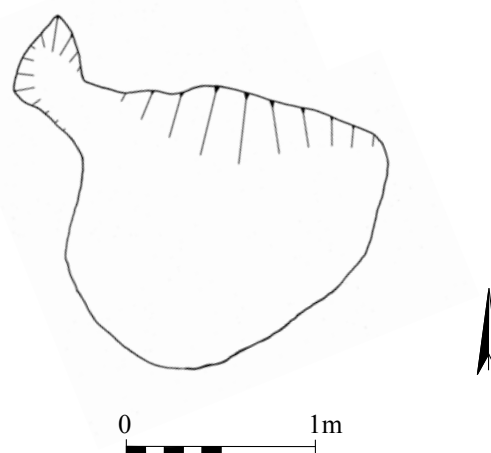


Figure 15. Site 4-F-38. Grave cut (scale 1:40).

same depth as the rest of the grave. No trace of the body or of grave goods remained *in situ* but a concentration of skull fragments on the western side of the cut may indicate the position of the head. Set into the top of the grave fill, and extending along the edge of the grave cut on its north side, was a row of large stones.



Plate 6. Site 4-F-38. Tumulus (1).

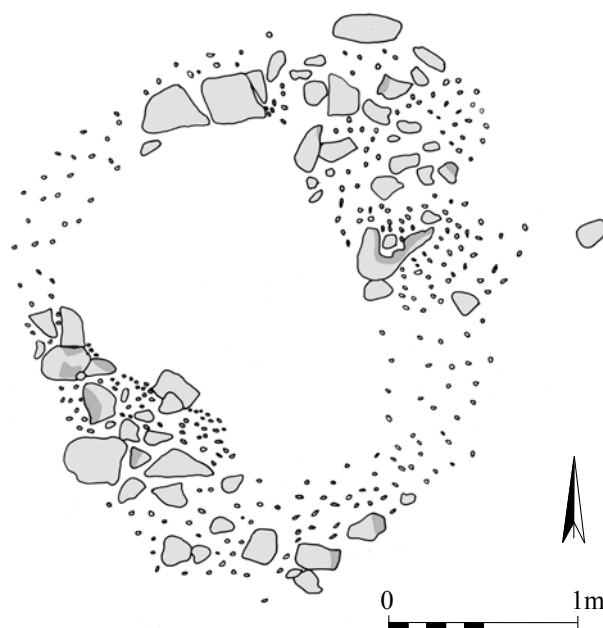


Figure 16. Site 4-F-38. Tumulus (1) stones and gravel which covered the grave fill and was sealed by the tumulus (scale 1:40).

<sup>3</sup> Supervised by Mahmoud Suleiman.

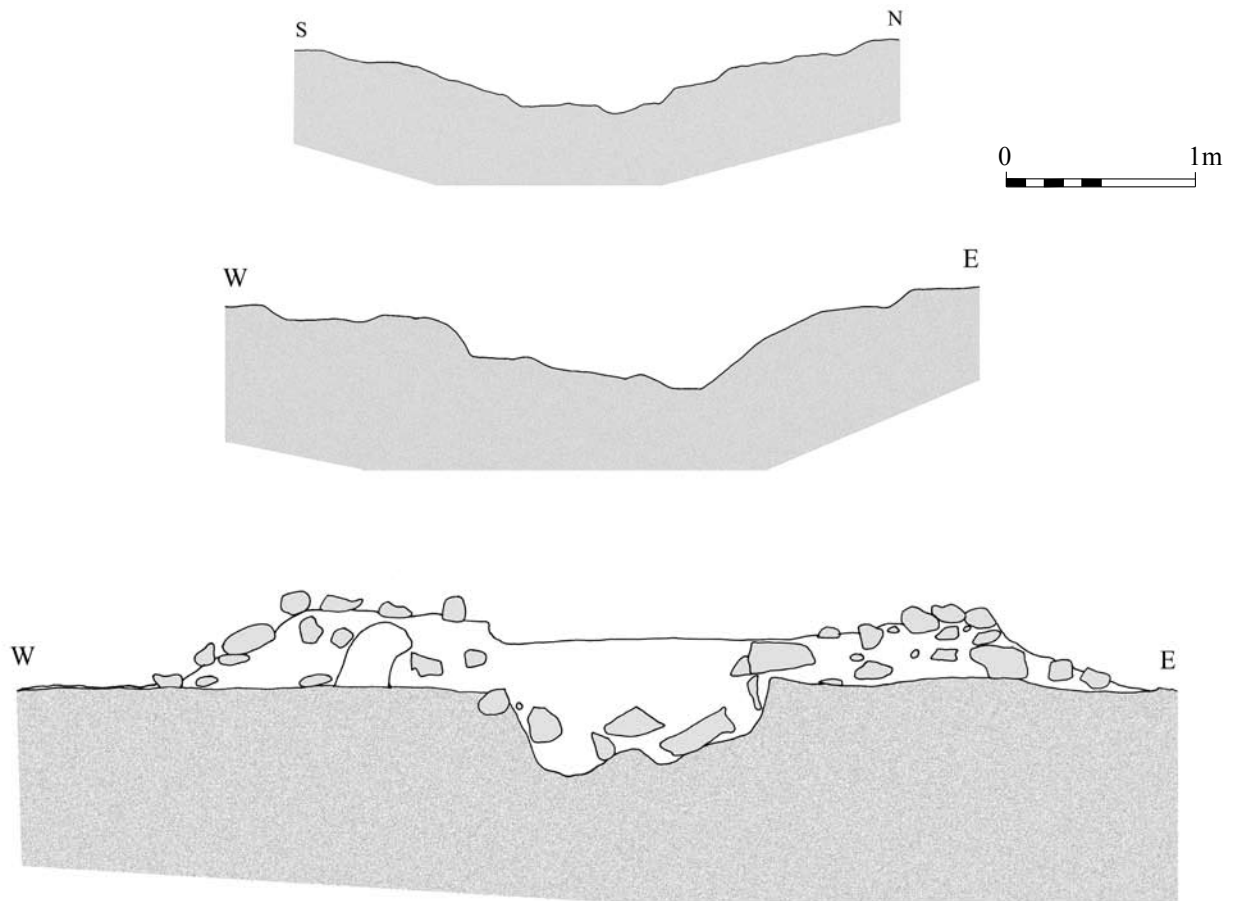


Figure 17. Site 4-F-38. North-south and east-west profiles of grave 3 and east-west section through tumulus (1) (scale 1:40).

The tumulus (Plate 8) was constructed of a single 'course' of stones up to 550 x 300mm in size, most being much smaller, forming a ring around the silt-filled centre 1.7m in diameter. Among the stones lay gravel and pottery sherds. The robber pit had been dug in the centre of the tumulus.



Plate 7. Site 4-F-38. Grave pit under tumulus (6).

### *The finds*

#### **SF:**

grinding base, stone 313,314,317,318

pin/awl, metal -copper alloy 1601

#### **Pottery forms:**



Plate .8 Site 4-F-38. Tumulus (6) with (7) and (8) in the background.



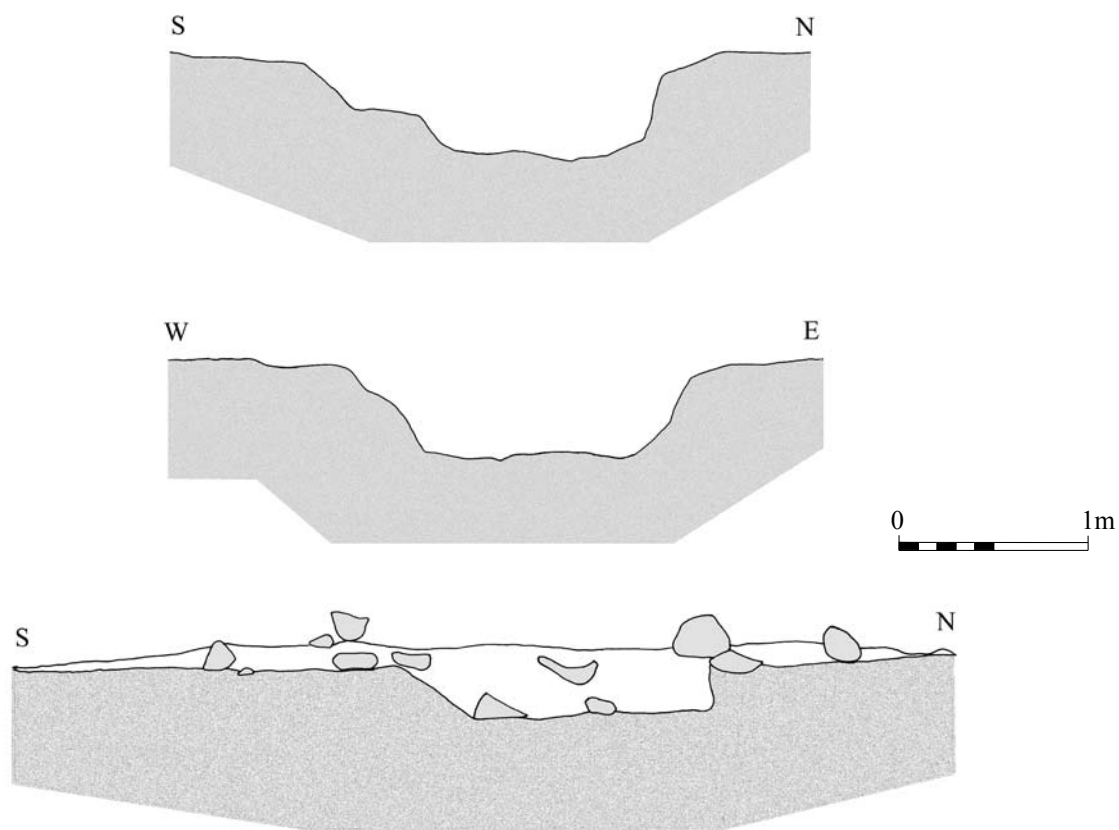


Figure 18. Site 4-F-38. North-south-and east-west profiles of grave 8 and east-west section through tumulus (6) (scale 1:40).

# Excavations within the Kushite cemeteries at sites 4-F-71 and 4-F-74

## Site 4-F-71

The site was noted at the very end of the 1999 survey season and was not recorded in detail at that time (Plate 1) (Welsby 1999, 44). The superstructure was excavated in January and February 2003 (Plate 2)<sup>1</sup> and the sub-surface features in December of that year.<sup>2</sup> During the excavation the major structural elements were not removed but in 2007 the monument was dismantled and transported to Merowe where it awaits re-erection in the museum devoted to the cultures of the Fourth Cataract to be built adjacent to and incorporating the old museum.

The features described here occupy a low rounded mound on the southern edge of a *wadi* (Plate 1). The

gravel, is cut into by a number of features which may all be broadly contemporary although this cannot be proven in many cases. It is however, likely that all belong to a single period of use associated either ritually and functionally with the burial in the subterranean grave or with the construction of a grave monument above ground.

### *Phase I*

The grave cut and its associated descendary appear to have been totally cleared out during the robbing phase and hence it is uncertain whether the cut, as it survived at the time of excavation, is the original grave cut or was



Plate 1. Site 4-F-71 when first discovered in 1999, looking south east towards site 4-K-204 some tumuli of which are visible on the skyline.



Plate 2. Site 4-F-71. The pyramid during excavation looking south west.

mound is formed of alluvium to a depth of well over 1m in contrast to the areas of similar elevation in the vicinity where the bedrock is close to the surface or outcrops. The original ground surface, of earth with some granite

<sup>1</sup> Supervised initially by Piotr Osypiński, thereafter by Andrew Ginns.

<sup>2</sup> Supervised by Derek Welsby, Isabella Welsby Sjöström and Hyder Mohammedein.



Plate 3. Site 4-F-71 the grave pit looking east along the descendary. The post-hole can be seen immediately beyond the scale.

modified by overcutting during the robbing phase. As it now survives the grave pit is an inverted conical shape rounding into the flat bottom, 1.07 x 0.89m in size, cut to a maximum of 270mm into the upper surface of the bedrock or utilising a depression in it (Plate 3). The bottom is pockmarked with small depressions, perhaps the result of removing the earth from the irregular surface of the bedrock. Leading into the pit from the east is a stepped descendary of irregular shape. The eastern edge of the descendary is formed by an oval slot [62] with almost vertical sides, 570mm long, 165mm wide and ranging in depth from 270 – 395mm. At its north end it is deepest terminating in a shallow circular depression 120mm in diameter (a post-pipe?). From the western edge of the slot the floor slopes down gently and then drops

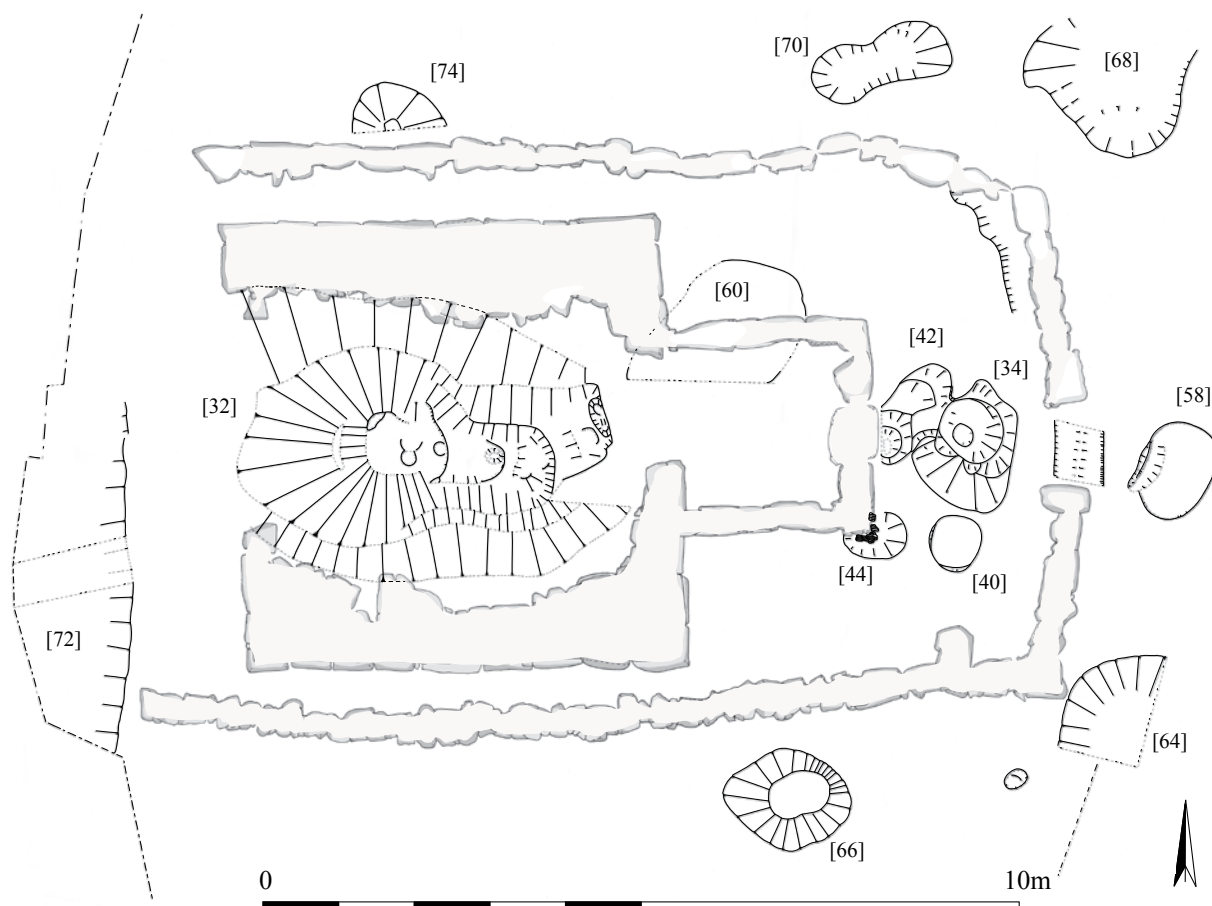


Figure 1. Site 4-F-71, grave and other pits on the site (scale 1:100).

almost vertically by 460mm to a flat 'D'-shaped step. At this point the orientation of the descender changes by 24° becoming aligned roughly east-west, the orientation subsequently followed by the tomb monument. Another vertical drop of 70mm gives access onto a second 'D'-

shaped step. Up against this vertical wall towards the centre of the descender is a 'kidney'-shaped post-hole [49] 310 x 200mm at the top narrowing to 155 x 85mm at the bottom and 155mm deep below the lower step. The floor of the descender then drops a further 500mm into

TABLE 1. PITS AND POST-HOLE CUT INTO THE SUBSOIL PROBABLY CONTEMPORARY WITH THE GRAVE CUT.

Pit	Length	Width	Dia.	Depth	Fill
34	-	-	1.2m	550mm	Silty lenses
40	-	-	760mm		Soft earth lenses, patch of decomposed organic material at the bottom and 12 udjat eyes (SF:333-339) in the lower fill.
42	1.06m	650mm	-	360mm	Silty soil, + 5 largish stones, earth fill beneath
44	-	-	810mm	100mm	Sparse deposit of charcoal up to 50mm thick on which were several stones up to 150 x 100 x 40mm in size. Some of the stones have been fire damaged.
58	1.22m	95mm	-	1.02-0.82m	Loose grey soil alternating with water deposited silt/water crusts. Contained several disarticulated bone fragments, a few pottery sherds and a bead (SF:340).
64	1.41+m	1.11+m		390mm	Lenses of water-deposited silt and coarse gravel. Only north-west quadrant excavated.
66					Lenses of wind-blown sand entering from north side, two large stones.
68	2.02m	1.6+m		250mm	Very fine silty lenses with water crusts. One large granite block protruding above fill.
70	870-730mm	750mm		370mm	Silty fills with water crusts above loose gravel. One large stone block.
100			250mm	230mm	Upper fill weathered granite fragments, silt and clay only a few cm deep. Lower fill alluvium, at a depth of 150mm many pieces of charcoal.





Plate 4. Site 4-F-71. Pits 34 and 42 in the foreground and pits 40 and 44 beyond looking south.



Plate 5. Site 4-F-71. Pit 68 in the foreground and pits 58 and 64 beyond looking south.

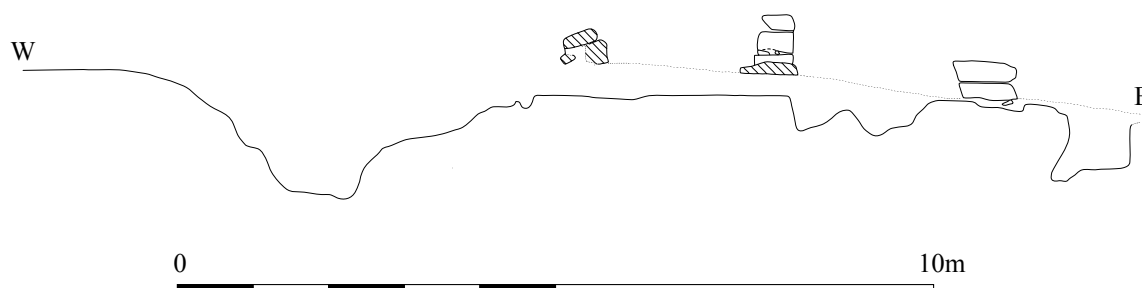


Figure 2. Site 4-F-71, section west-east through the grave, descandary and pits (scale 1:100).

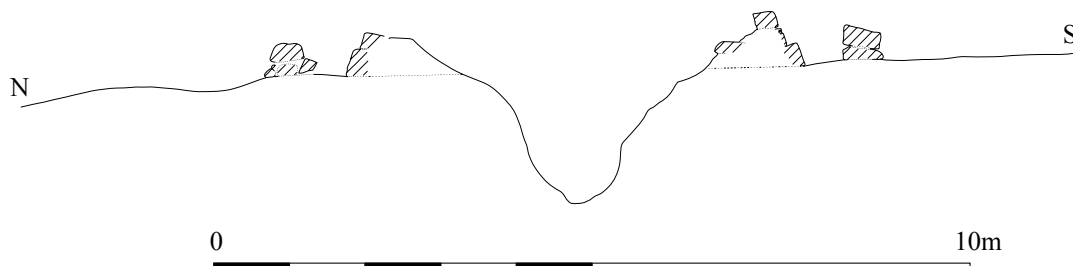


Figure 3. Site 4-F-71, section north-south fthrough the grave (scale 1:100).

the grave pit (Figures 1-3). Nothing remained of the burial and almost all the grave fill was subsequently removed by the robbers.

The grave was cut into a hard surface of earth with some gravel [39]. To the east this surface was also cut by several pits which may be contemporary with the grave cut although this cannot be proven. Pits 34 and 42 are intercut but it was unclear which was the earlier. Pit 58 was dug down to the surface of the bedrock.

To the west of the site, approximately on the line one can assume to have been taken by the west enclosure wall, was a linear depression, its east side running north - south. It extended into the spoil heap to the west. The fill was of fine dust above coarse gravel. Running across the site of the later doorway through the east wall of the enclosure

was a shallow trench [77] 600mm wide, 120mm deep and visible for a length of 880mm. Stratigraphically it appears not to be associated with the enclosure wall; it is not a foundation trench and it is in any event off line being set slightly to the east of the later wall.

### *Phase II*

The next phase involved the deposition of a layer [38/59/76] approximately 300mm thick of coarse sand/ gravel and earth, much of it very soft, across the whole of the central part of the mound which sealed all the pits and presumably the grave pit. Cutting this layer were three shallow bowl-shaped pits. The fill of pit 60 was sealed by the north wall of the offering chapel, that of pit 74 by

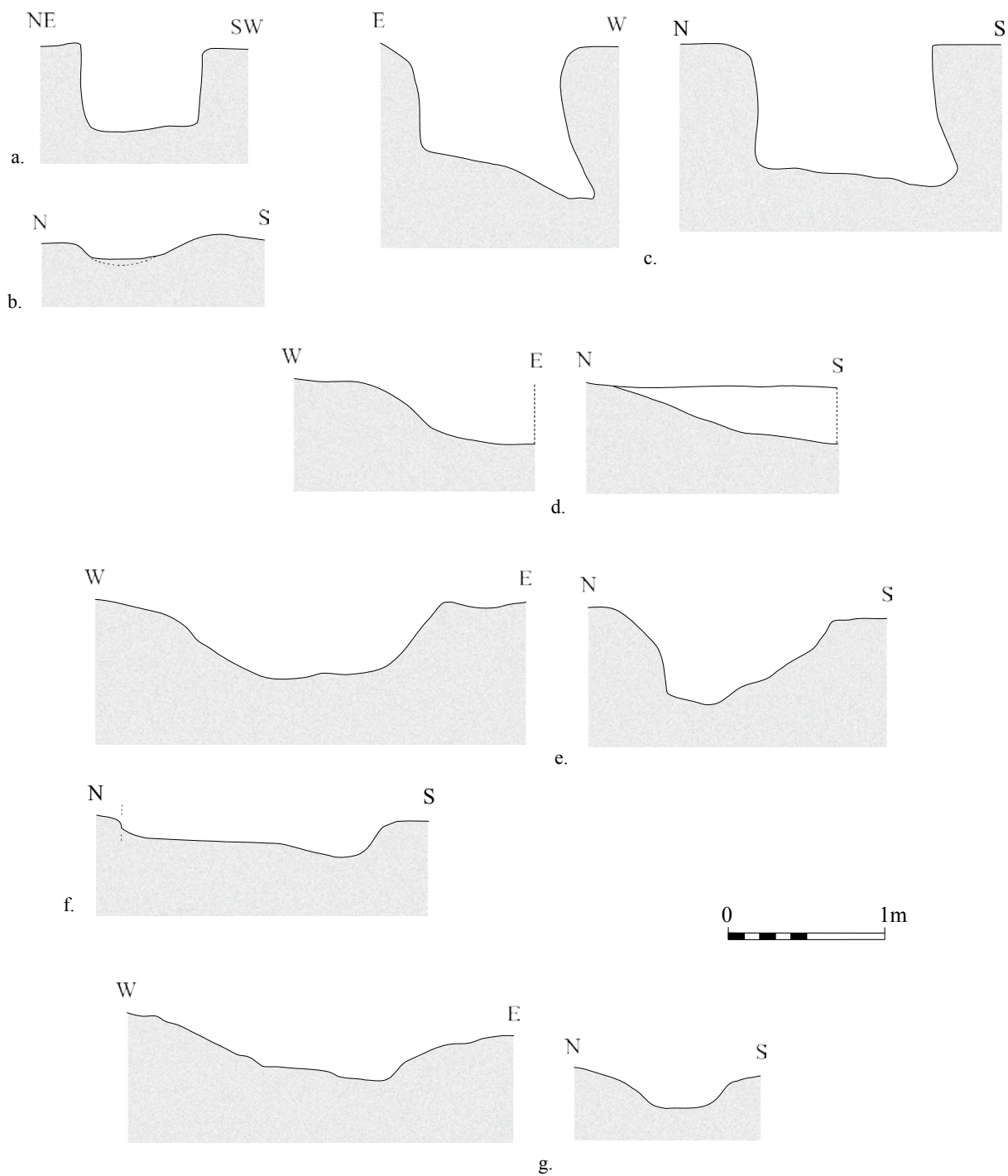


Plate 6. Site 4-F-71. Foundation deposit in a shallow pit [44] under the south-east corner of the pyramid.

Figure 4. Sections of phase I pits (scale 1:40):

- a. pit 40
- b. pit 44
- c. pit 58
- d. pit 64
- e. pit 66
- f. pit 68
- g. pit 70

TABLE 2. PHASE II PITS.

Pit	Dia.	Depth	Fill
51	1.45m	c. 300mm	Loose coarse gravel.
60	c. 670mm	c. 300mm	Initially filled from the east or north east by steeply angled silt lenses and earth. This overlain to west by coarse gravel and small stones.
74	1.25m	320mm	Lenses of silt, many with water crusts, and coarse gravel. Large stone 210 x 150 x 150mm.



Plate 7. Site 4-F-71. The south-east corner of the pyramid. Soon after excavation the uppermost stone was removed and reused as a grave marker in the Islamic cemetery near Birti.



Plate 8. Site 4-F-71. The south enclosure wall and pyramid. The pyramidion was found in the narrow gap between the two.

the north enclosure wall.

### *Phase III*

The pyramid, offering chapel and enclosure walls were set on top of layer [38/59/76] without any provision of foundations. The pyramid was almost square - north face 5.85m, south face 5.8m, east face 5.9m, west face 5.85m – and survived at the time of excavation to a maximum height of 1m, four courses (Figure 6, Plates 7, 8 and 9). The faces were constructed of granite blocks which appear to have been carefully chosen rather than there having been any attempt to dress them. Notwithstanding the intractable nature of the building material the coursing is reasonably regular and the faces smooth although on the north face an extra course has been interpolated to compensate for the thinner than usual stones used in the course below and above. Although the stones in any one course are of similar height, courses range between approximately 250mm and 320mm, they vary markedly in length with a maximum of 1.3m. Many chock stones are used to fill the interstices between the blocks both in the vertical and horizontal joints and are bonded in a red earth mortar. Each course is set back between 120 and 160mm from that below giving an angle of slope of approximately 61°. Where the face of the stones is angled they are placed so that they conform to the general slope of the monument's faces (Plate 8). The core, of which little had survived the robbing of the grave, was a mass of large irregular blocks roughly piled up, the interstices filled with earth.

As was generally the case with Kushite pyramids the top of this monument must have been truncated. It was surmounted by a capstone (Figure 8, Plate 11) made from a soft reddish Nubian sandstone with very pronounced tool marks on its faces. Found among the rubble this was a truncated pyramidal shape with a projecting square base (total H: 320mm, angle of slope 77°; base 372mm square, H: 70mm). At the top it measured 210mm square, in the centre of which was a socket 70mm square and 60mm deep. Extending from opposite sides of the socket to two of the sloping faces of the capstone was a rectangular-sectioned groove 21-28mm wide and approximately 20mm deep. In the centre of a third face close to the top was a mason's mark or graffito in the form of a Cross of Lorraine (Plate 12). One can estimate that the base of the capstone stood approximately 5.35m above the ground, the total height of the pyramid being approximately 5.67m. To this must be added the height of whatever was accommodated within the socket in the capstone.

In a number of pyramids at Meroe and at Karanog evidence has been found for the presence of a vertical wooden pole which will have been used as the upright of a *shaduf*-type lifting device during the construction of the monument (Hinkel 1984; 1986; 1994, 62). In this context the presence of the post-hole [49] in the floor of the descandary close to the centre-point of the monument may take on a new significance.

The offering chapel, abutting the east face of the





Plate 9. Site 4-F-71. General view of the pyramid, offering chapel and enclosure wall before the excavation of the grave and other pits, looking west.

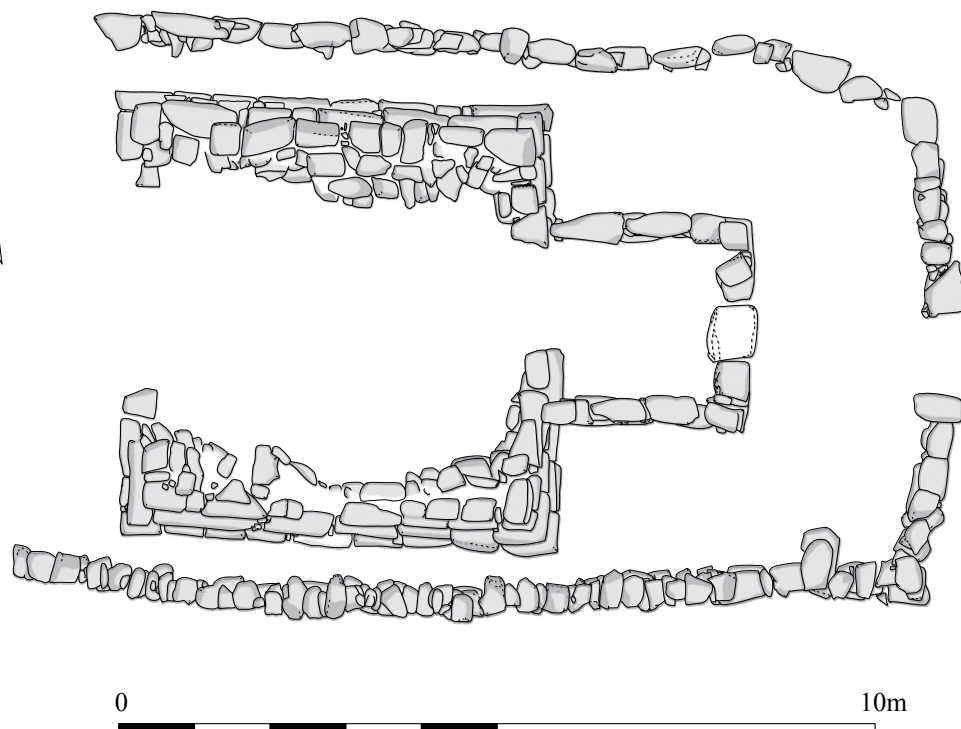


Figure 5. Site 4-F-71. The pyramid, offering chapel and enclosure wall (scale 1:100).

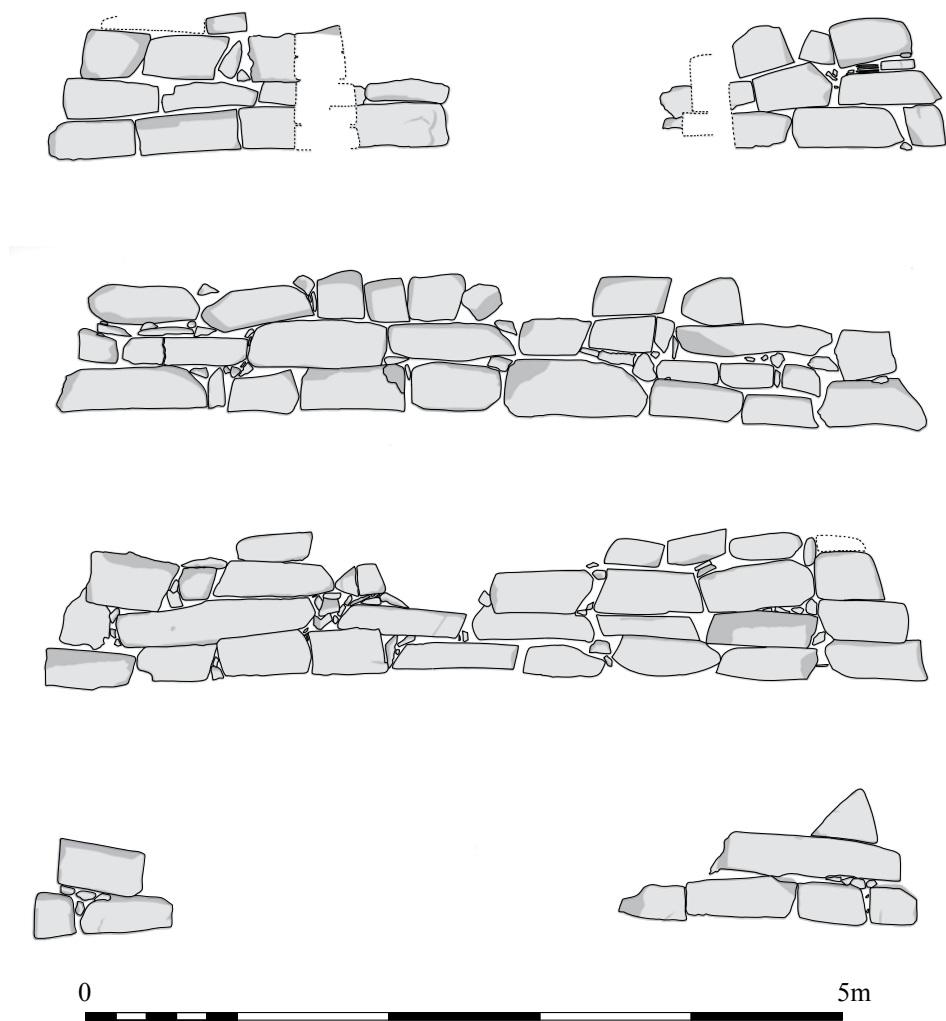


Figure 6. Site 4-F-71. Elevations of the pyramid, east wall, north wall, south wall and west wall (scale 1:50).

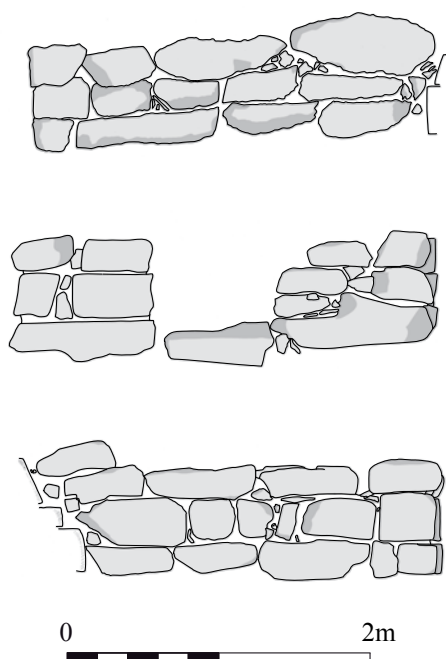


Figure 7. Site 4-F-71. Elevations of the external faces of the offering chapel walls, north wall, south wall and east wall (scale 1:50).



Plate 10. Site 4-F-71. The offering chapel and pyramid viewed over the north-east corner of the enclosure wall.

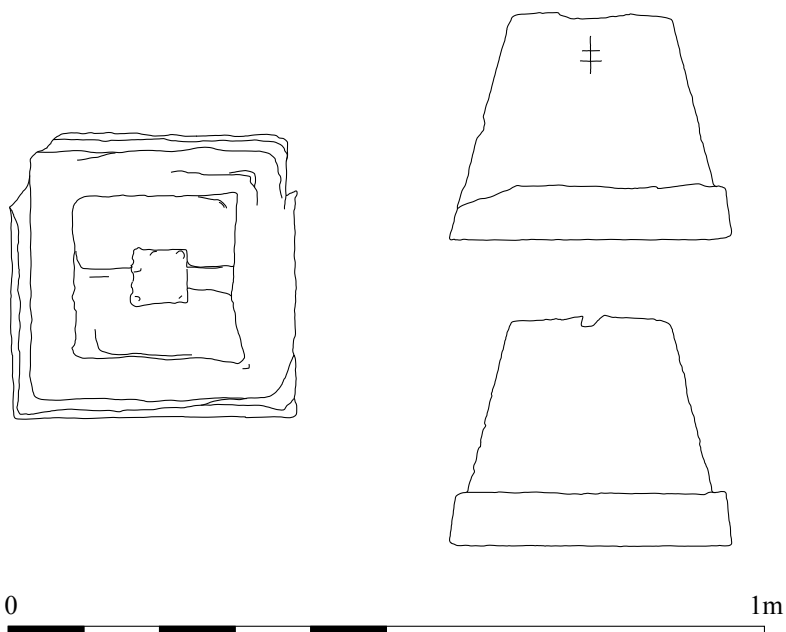


Figure 8. Site 4-F-71. The sandstone pyramidion (scale 1:10).



Plate 11. Site 4-F-71. The sandstone pyramidion.



Plate 12. Site 4-F-71. The sandstone pyramidion with the graffito/mason's mark.

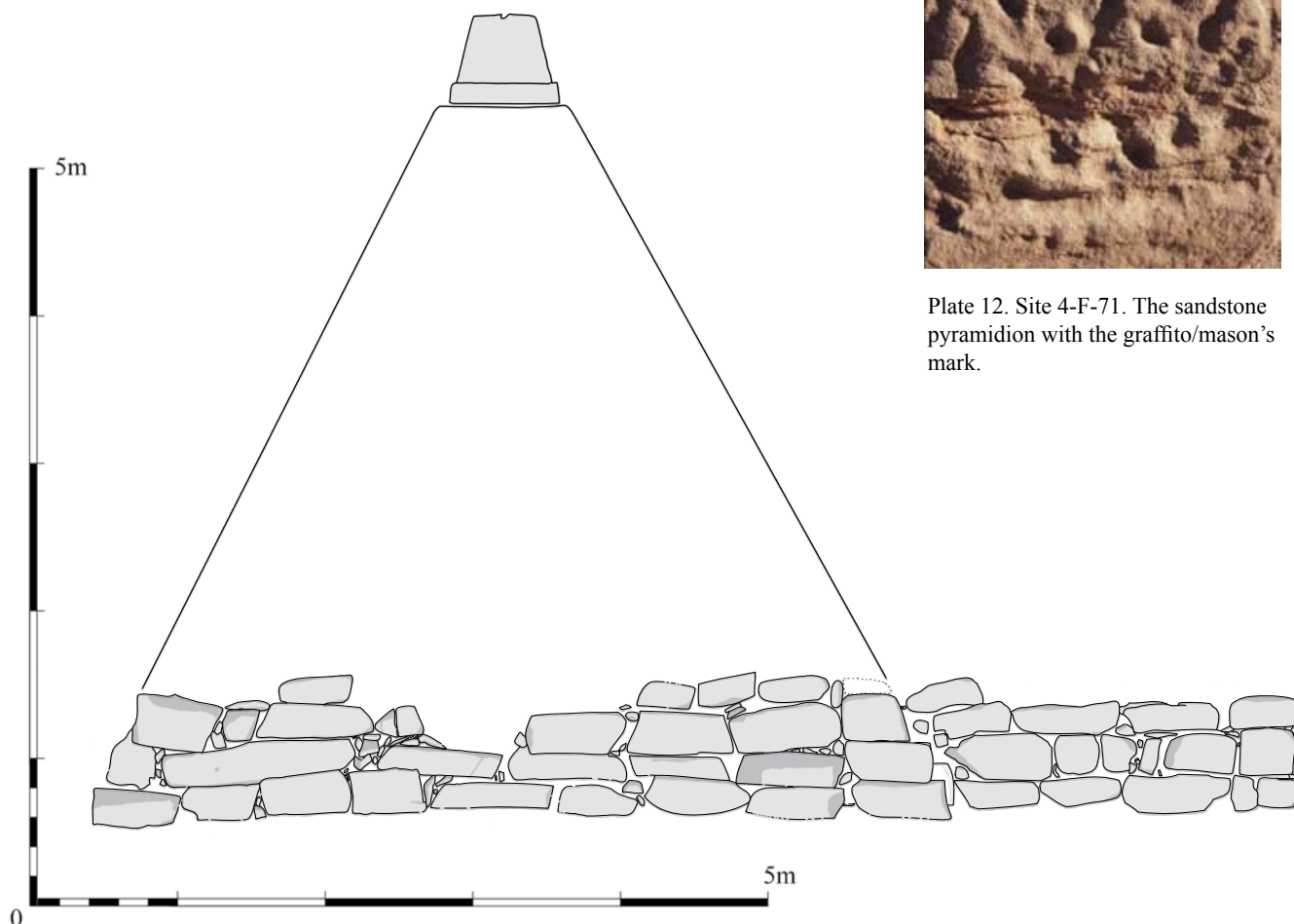


Figure 9. Site 4-F-71. Restored elevations of the south aspect of the pyramid and offering chapel (scale 1:50).



pyramid, projected 2.35m to the east and was 2.8m wide externally (Plate 10). Its walls, one stone thick, between 400 and 450mm, were constructed of similar-sized stones to those of the pyramid. It was entered from the east through a doorway 800mm wide provided with a large flat stone threshold set partly into the ground surface. No evidence for a doorframe or door pivot was found and no wear from the opening of a door was visible. Immediately adjacent to the south-east corner of the threshold, hard up to the east wall, was a shallow depression containing a piece of mud brick and part of a pot. The interior of the offering chapel had been disturbed and no evidence for a floor remained.

The enclosure wall was built directly onto the ground surface apart from at the north-east corner and along the northern part of the east wall where it was terraced a little into the slope, a construction 'trench' [55] being visible. The western wall and points of junction with the north and south walls did not survive. Unlike the pyramid and offering chapel the enclosure walls were very poorly constructed and very irregular in their layout. To the north and south, and presumably to the west, they run close to the sides of the pyramid, to the east they enclose a roughly rectangular area 6.5m north-south by 4.6m east-west. The north and east walls have a similar construction, built mainly from long blocks. As many of the blocks are of irregular shape the coursing is very imprecise. The stones are simply piled one upon another with some large gaps between. The north wall stand to a maximum height of two courses as does the east wall apart from at its southern end where there are four courses. The south wall is generally made from smaller rounded stones some set on end and survives to a height of 850mm. In the central sector regular coursing disappears entirely. Towards its eastern end one slab is set horizontally projecting into the enclosure and resting on another stone. It is not clear whether this is intentional. The enclosure walls follow the contours of the mound. In the centre of the east wall is an entrance 1.05m wide.

As a result of the robbing very little can be said about the interment here nor of what grave goods and funerary rituals may have been associated with its burial. The body, if that of an adult, was presumably placed in a tightly contracted position given the small amount of space available in the grave. What seems clear is that the ground surface was cleared down to the hard surface of layer 39 into which the grave was cut. Given the subsequent sequence of events that can be demonstrated stratigraphically it can be assumed that, as part of the preparations for the burial or immediately thereafter, the pits listed in Table 1 were dug. Pit 40 contained the organic deposit and the 12 udjat eyes in its lower fill. A fire had been set in pit 44 and stones placed in it while the fire raged (Plate 6). Pit 58 may have been particularly important lying as it does immediately outside the enclosure wall on the main axis of the tomb and its monument.<sup>3</sup> It contained some fragments of human bone. Subsequent events are rather difficult to

understand as most of these pits, including pit 58, then appear to have filled naturally over a period of time and some of them contained large stones which logically one would assume would have come from the collapse of the monument. However stratigraphically this is impossible. After the pits had filled naturally the whole area was then covered in the deposit, layer 38/59/76. Into this were cut the three pits 51, 60 and 74 which also appear to have filled naturally over a period of time, certainly long enough for there to have been several occasions when there was rainfall, before the pyramid, offering chapel and enclosure walls were built. Although by this time pit 44 was well buried its position, directly under the corner of the offering chapel, can hardly be a coincidence. It occupied the position where one would expect there to have been a foundation deposit. Was it marked on the surface by a stick set into its fill so that the offering chapel builders would have known its location? After the removal of the pyramid in 2007 a diligent search was made for additional features particularly under the pyramid's corners. The only feature noted was under, or right at the angle of, the north-west corner where there was a well cut circular post-hole [100].

The linear feature 77 also appears to be connected with the east enclosure wall yet again was buried when that wall was built. Some of the outlying pits may have been quarry pits used to obtain the bonding materials for the monument, others sealed by the material on which the monument was built cannot have been so used.

### *Phase IV*

On the evidence of post-Meroitic pottery sherds used as digging tools, and found within the fill of the robber pit 32, the last phase of robbing of the tomb did not take place before the post-Meroitic period. Evidence for earlier robber activities will have been removed by this latest robbing phase which was very thorough. At that time, if not before, the whole of the pyramid superstructure was dismantled down to a height of not more than 1m, the west face was removed in its entirety as well as the east face where it abutted the offering chapel. Almost all of the core was removed and the whole grave pit was cleared out along with most of the fill from the descending. The rubble was dumped over the walls to the north, east and south and a further pile was made a little to the west. When the monument was first recorded in 1999 it appeared to be a two-roomed structure entered from the west, so complete had the destruction been. Wall faces could be seen in places but the nature of the monument was totally obscured by the large amounts of rubble. Beneath the rubble in the narrow gap between the south face of the pyramid and the enclosure wall the capstone of the pyramid was found set upright. The robber pit filled naturally over a long period of time. The fill was made up of innumerable thin horizontal layers of wind-blown sand with water crusts, within which were occasional large blocks which had slipped into the pit from the rubble core of the pyramid. Among the rubble were sherds of pottery, human bone and lithics ranging in date from Middle Palaeolithic to Neolithic (or later).

<sup>3</sup> Unfortunately before this pit was found the area immediately to the east was used to dump the rubble from the monument. It was impossible in the time available to remove the often massive granite blocks from this area to ascertain whether other pits were located in the vicinity.

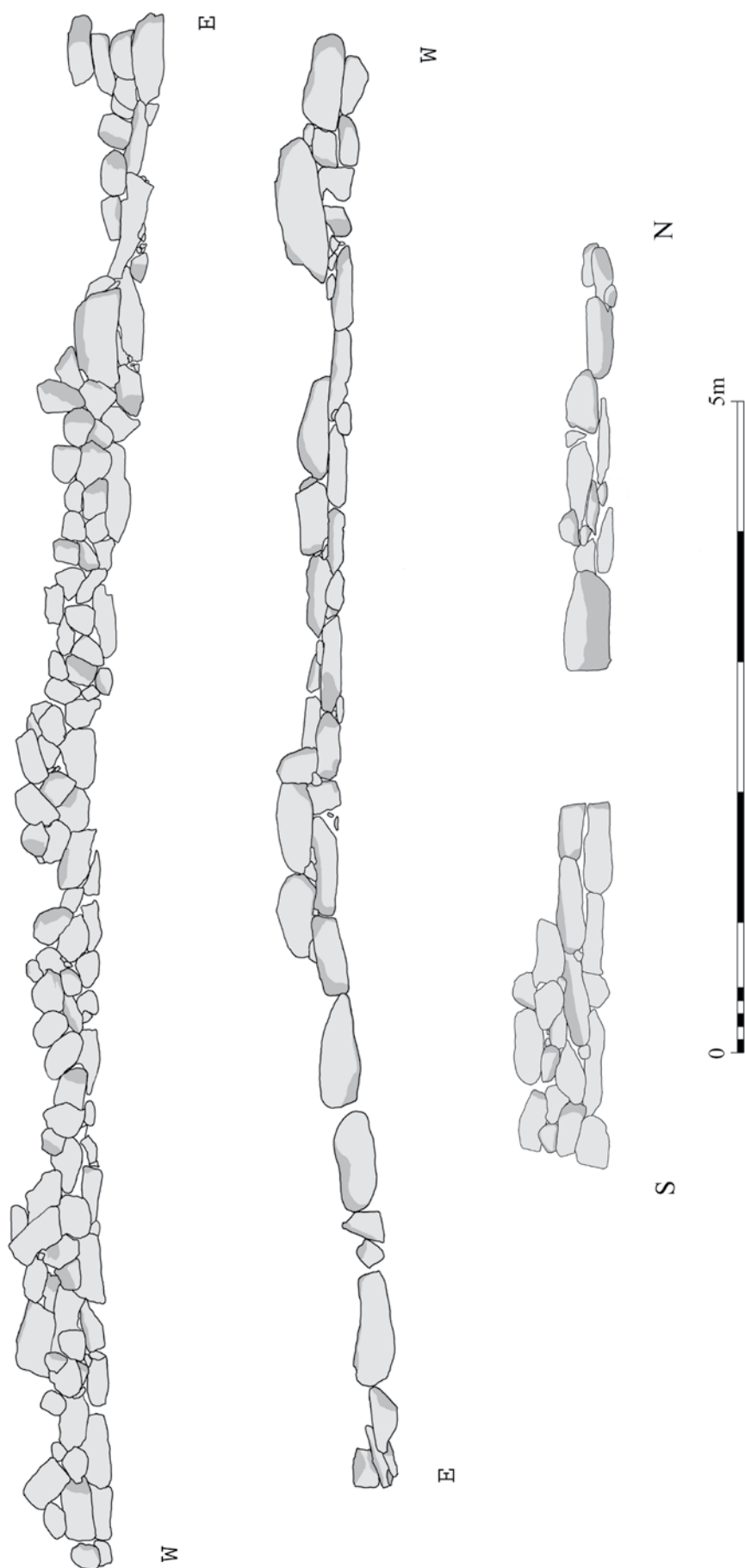


Figure 10. Site 4-F-71. Elevations of the north, south and east enclosure walls (scale 1:50).

TABLE 3.. RECENT PITS.

Pit	Length	Width	Depth	Fill
32	c. 4.2m	2.7m	1.59m	thin horizontal layers of wind-blown sand with water crusts, occasional large blocks.
36	650mm	480mm	280mm	dug in 2003

The latest robbing activities (Table 3) occurred in 2003 when a pit [32] was dug immediately in front of the threshold into the offering chapel and in November of that year the facing stone from the highest surviving part of the pyramid at its south-east corner was removed for use as a grave marker in a nearby cemetery.

A piece of walling added on to the top of the enclosure wall at its south-east corner may be of relatively recent date. It is of even cruder construction than the original wall.

### *The finds*

#### **SF:**

beads, glazed composition 301, metal - gold 274, 340-342<sup>4</sup>

carbochon, stone - chalcedony? 343

grinding base, stone 319,

macehead, stone 287

mud-brick fragments 321

sherd, reused, ceramic 332

udjat eyes, glazed composition 333-337, metal - gold?

339, stone - ironstone, 338

#### **Pottery forms:**

<sup>4</sup>For a preliminary discussion of these beads see Welsby Sjöström 2010.



Site 4-F-74

The western half of this cemetery (Plate 13) was excavated during the 2002/3 season, the south-western quadrant being cleared down to the natural.<sup>5</sup> In this area the extensive robbing of the graves had resulted in an largely amorphous mass of silt and large stones (up to 800mm in size) extending down to the bedrock and containing concentrations



Plate 13. Site 4-F-74. General view of the cemetery before excavation.

of bone fragments and artefacts. No structural features survived in this area. In the northern and central part of the excavated area preservation was better. One concentration of bone, which appears to include parts of seven individuals, lay within a sub-rectangular stone monument (13). (6) is sub-rectangular in shape, its south-west side formed by an outcrop. (8) is oval, formed of a single row of large blocks set directly on the bedrock (Plate 14).



Plate 14. Site 4-F-74. Grave (8).

Some of the large stones are arranged radially. Within the silty fill of both monuments were large quantities of human bone from five individuals in each case as well as pottery sherds and beads (Table 4).

As a result of the site having been very badly disturbed

a large amount of artefacts was found scattered among the rubble and in the surrounding area.

The finds

SF:

- cowrie 244, 5046
- bead/amulet 245
- beads, bone 262, 1570; glazed composition 153, 171, 175, 176, 177, 180, 181, 183, 193, 194, 195, 211, 212, 230, 232, 236, 238, 239, 240, 242, 250, 253, 255, 258-261-266, 970, 974, 975, 1552, 1588, 1589, 1591, 1602; glass 154,173,174,179, 184, 191, 192, 231, 978; ostrich eggshell 152, 172, 190, 213, 233, 241, 249,254, 256, 1562, 1587, 1598; stone, 182, 185, 214, 248, 257, 1600
- fragment, metal 265
- objects, glazed composition 263,264
- scarabs, glazed composition 178,186,187,1550
- sherd, ceramic 302
- udjat eyes, glazed composition 128, 142, 237, 247, stone - porphyry? 267
- whetstone 1571

Pottery forms

TABLE 4. 4-F-74 DETAILS OF GRAVES.

Feature	Length	Width	Orient.	Fill contained
(6)	...	...	NW-SE	Human bone, 5 individuals, pottery sherds
(8)	...	...	N-S	Human bone, 5 individuals, pottery sherds
(13)	...	...	NW-SE	Human bone, 7 individuals

<sup>5</sup> Supervised by Ben Neil.

# Excavations within the cemetery at site 4-F-76

The low rounded mound consisted of an undulating brown to grey deposit of sandy earth, quite compact and containing small soft white stone inclusions. This is cut



Plate 1. General view over the mound.

by four pits. Pit 5 on the edge of the mound is oval, 1.3 x 1.1m in size and 400mm deep, with sloping sides and a flat bottom. It may be a natural feature as not dissimilar 'pits' were found elsewhere on the mound although not as well defined as this one. It was filled with wind-blown material and water-deposited silts. No direct stratigraphical link could be established between the three grave pits found in the cemetery. They were all excavated through the earth surface of the mound and sealed by the stones of their superstructures. One might assume that they were broadly contemporary. All had been robbed and pottery was scattered across the mound. In no case was it possible to ascertain from which of the three graves this material may have come.



Plate 2. General view after partial cleaning of the mound.

Grave 8 [skeletons 9 and 14, Grave cut - L: 1.5m, W: 1.25m, Depth: 400mm]

The sub-rectangular grave cut has its long axis aligned north – south. The sides are nearly vertical, the base flat (Figure 1). Lining the sides of the grave cut are stones (average size 250 x 200 x 200mm), up to two courses in height in places, elsewhere the stones were set on edge. They extended a little above the ground surface. Two adult bodies, of a male/female were placed in the grave, presumably at the same time. They are both arranged in

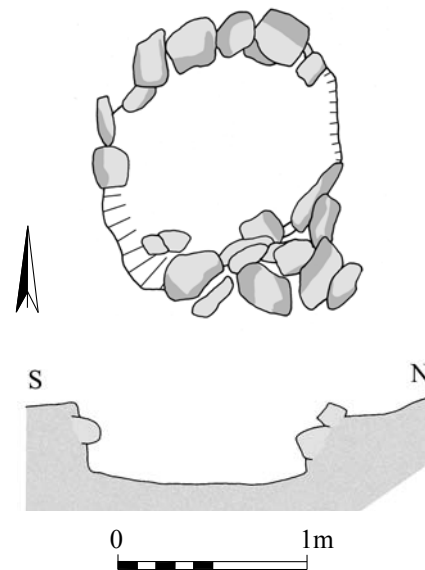


Figure 1. Grave 8, plan and north-south section (scale 1:40).

a similar manner, the bodies flexed, laid on their right sides, head to the north looking west, and with the hands before the face (Figure 2, Plate 3). A small hemispherical bowl, with a small black stone on it, lay beneath the upper arms of the western burial. Blue beads (SF:271) came from behind the skull of this individual who was probably a female, the eastern burial was that of a male.



Figure 2. Grave 8, skeletons 9 and 14 (scale 1:15).



Plate 3. Grave 8, looking north.

The grave was infilled with earth and sealed in part by the tomb monument. This, constructed of stones between 200mm and 400mm in length, was badly disturbed but may originally have been of Type FT04 and have been approximately 3m in diameter. The robber pit, 1.1 x 0.6m in size and with a depth of 600mm, penetrated down to the floor of the grave but only in its southern part. Thus the pelvis and legs of the skeletons were disturbed while the feet of the eastern burial partially survived. Subsequent to the robbing some of the stone lining of the grave slumped into the robber pit which filled with layers of wind-blown sand and water-deposited silt.

Grave 10 [skeleton 22, Grave cut - L: 1.1m, W: 900mm, Depth: 450mm]

The grave cut visible on the surface was an elongated oval shape but the grave itself was much smaller, a regular oval (Figure 3) just large enough to contain the tightly crouched inhumation. The skeleton of an adult female

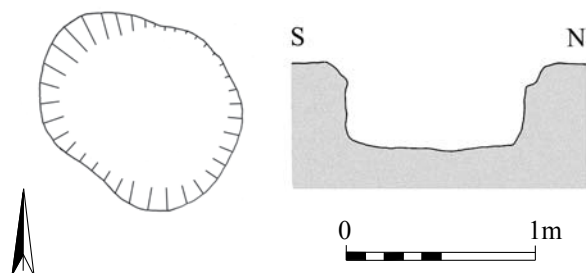


Figure 3. Grave 10. Plan and south-north section (scale 1:40).

was laid on its right side oriented north-south with the head to the north (Figure 4, Plate 4). The right arm was flexed, the hand lying close to the knees, while the left arm was extended along the torso, flexed at the elbow with the hand under the left leg. A stone bangle (SF:269) remained in place on the left forearm (Plate 5). Set in the upper part of the grave, sealing the very loose fine fill, were granite blocks between 200mm and 400mm in size which had been carefully placed (Figure 5). These were covered by a low mound of earth on which was a pile of stones which appear to have been placed up against the already existing monuments associated with graves 8 and 16. The tumulus had been disturbed by the robber pit which was dug into the west side of the grave and had re-



Plate 4. Grave 10, looking north north east.

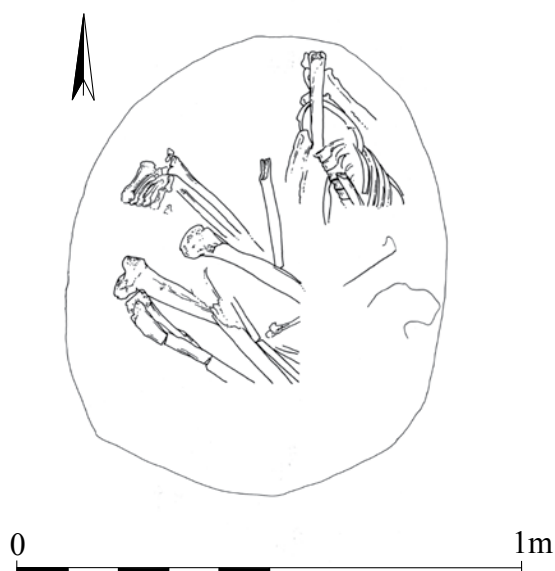


Figure 4. Grave 10, skeleton 22 (scale 1:15).



Plate 5. Grave 10, skeleton 22 with stone bangle *in situ* around the bones of the lower right arm.



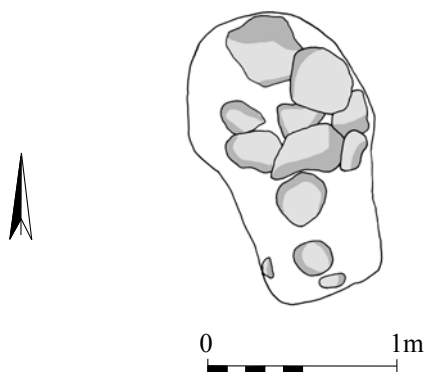


Figure 5. Grave 10. Plan of the top of the grave cut (scale 1:40).

sulted in the removal of the head which was not located on the site.

Grave 16 [skeletons 30 and 31, Grave cut - L: 2.2m, W: 1.4mm, Depth: 450mm]

A sub-rectangular grave pit with its long axis aligned north-south. The vertical edges of the pit were lined with a single row of stones (Figure 6). The grave contained two individuals oriented north-south with the heads to the north and placed back to back (Figure 7, Plate 6). The

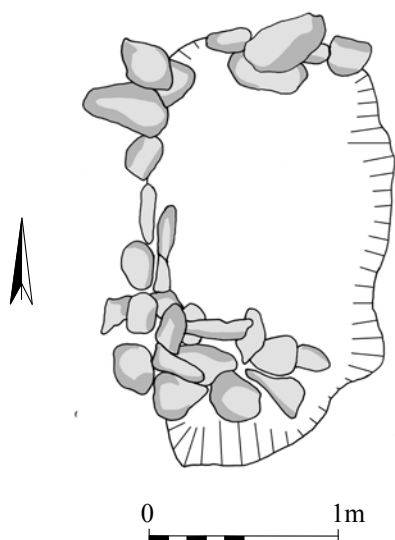


Figure 6. Grave 16, plan (scale 1:40).



Plate 6. Grave 16, looking north.

western burial was of an adult male. It had probably been laid on its back with the legs flexed to the right. The right upper arm was at 90° to the thorax, tightly flexed at the elbow so that the hand was immediately above the skull. The other skeleton was that of an adult female, on its left side facing east. The left arm was tightly flexed against the chest with the hand below the chin. The right humerus was at 45° to the spine, the disarticulated lower arm was in front of the face. The legs had been much disturbed but had probably been flexed to some extent.

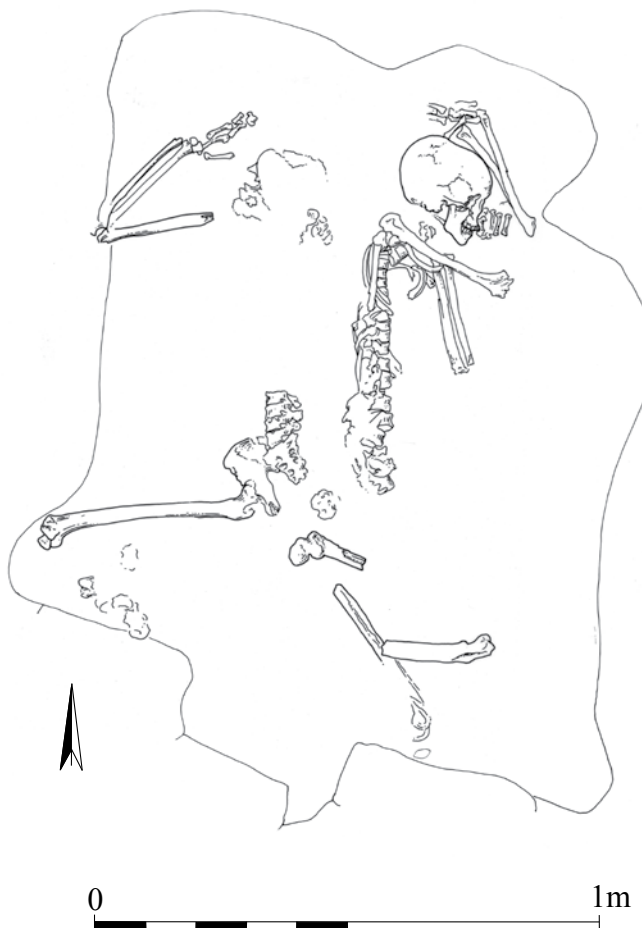


Figure 7. Grave 16, skeletons 30 and 31 (scale 1:15).

The tumulus 3.3m in length north-south by 3.5m, consisted of the same earth as that used for the grave fill, surviving to a height of 500mm and covered in stones, a maximum of 350mm in length, up to three 'courses' high. The robber pit, 2 x 1.2m in size and 800mm deep, effectively half-sectioned the tumulus before being tunnelled into the section and causing disturbance to both bodies. It had filled with wind-blown sand and water-deposited silts.

### *The finds*

#### **SF:**

Grave 10

bangle, stone - ironstone 269

Grave 8

beads, faience 271

#### **Pottery forms:**