

CHAPTER EIGHTEEN

HUMAN BONES AND BURIALS

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During the 1996 excavation season, for the first time human bones were unearthed at Berenike. In only two instances these bones were recognised as being human at the moment of excavation, the rest was picked out from among the large amount of animal bones.¹ Three more or less complete skeletons were found, of which only two appeared to be properly buried. One of these was the skeleton of an adult female, while the other was that of a prematurely born infant. The third skeleton, of an adult male, was found in a place and a position suggesting an accident or even a crime.

Apart from describing the bones found in Berenike itself, a number of ancient and modern graves in the vicinity of the site was studied in order to propose a typology and a chronology.

18.1 THE BONES

All loci in which human bones were found are listed in table 18-1 (see also Chapter 3). The presence of human bones in a large number of loci, and often among household refuse, might be explained by graveyards turning into trash dumps after which animal and human activity, such as clearing the site for building, can mix the two and scatter once complete skeletons over a large area. Pulled teeth and the bones of extremities that were separated from the body after serious accidents may, of course, directly find their way to a trash dump. The three complete skeletons were each given a site ID-number and will be discussed in short (see Brothwell 1981 and Bass 1987 for the method used).

The most complete skeleton, number 0380-L, was found just under the surface in trench BE96-11 (locus 010), on top of a Ptolemaic industrial area. It was placed in a supine position, with the head pointing south and the arms parallel to the body. A few very small parts of what must have been the shroud were seen, one stuck to the right scapula, and the genital area was covered with a large potsherd (Plate 3-84, p.108 removed in this photo). The bones were of an adult female with an estimated stature of 1.61 m (5' 1½") who died at an age of 40-50 years. The relevant anthropometric data are given in tables 18-2 and 18-3 (Trotter and Gleser 1958; Workshop of European Anthropologists 1980). The skull was severely damaged and could only be partly reconstructed (Plate 18-4).

¹ By A.M.H. Eryvynck and W. Van Neer of the Koninklijk Museum voor Midden Afrika in Tervuren, Belgium.

Context	Human bones excavated
BE95/96-05.079	distal part of child's femur
BE95/96-07.033	foetal skeleton (4606-L)
BE95/96-07.050	mandibula of an adult
BE95/96-07.058	foetal ulna?
BE96-09.030	distal part of right femur; left and right tarsals and metatarsals
BE96-09.050	right tibia; two metacarpals
BE96-09.053	cervical vertebra
BE96-09.058	two phalanges of a thumb; one molar
BE96-09.060	lumbar vertebra
BE96-09.063	adult male skeleton (3472-L)
BE96-11.002	fragmentary and burnt human bones
BE96-11.005	femora and pelvis of a 6-9 year-old; vertebrae, ribs and teeth of an adult; few bones of a right hand
BE96-11.007	part of a child's hand and skull
BE96-11.010	adult female skeleton (0380-L)
BE96-11.012	talus
BE96-11.017	lumbar vertebra
BE96-11.024	tibia of an 18 year-old; end phalanx of toe
desert survey (23°N53.32' - 35°E23.79')	distal part of right humerus; few pieces of skull

Table 18-1 Loci in which human bones were found in Berenike during the 1996 excavation season.

Bone	Length	MBC	Index	DH	BW
Right clavicle	151	40	26.5		
Right humerus	327	62	19.0	45	61
Right radius	240	43	17.9		
Right ulna	259	47	18.1		
Right femur	424	91	21.5	44	77
Right tibia					
Right fibula					
Left clavicle					
Left humerus	323	60	18.6	46	59
Left radius	237	42	17.7		
Left ulna	256	48	18.8		
Left femur				44	
Left tibia					
Left fibula					

Table 18-2 Anthropometric measurements (in mm) of the long bones from locus BE96-11.010 (skeleton 0380 L).

Length = maximum length
MBC = mid-bone circumference
DH = diameter head
Index = $MBC \times 100 / \text{length}$
BW = bicondylar width

Measurement	Right	Left
Length pubis	85	85
Length ischium	70	75
Max. diameter of the foramen obturatorium	51	53
Min. diameter of the foramen obturatorium	30	31

Table 18-3 Anthropomorphic measurements (in mm) of the pelvis from locus BE96-11.010 (skeleton 0380-L).



Plate 18-4 The restored skull from locus BE96-11.010 (skeleton 0380-L). Note the pronounced overbite. Photo by B.J. Seldenthuis.

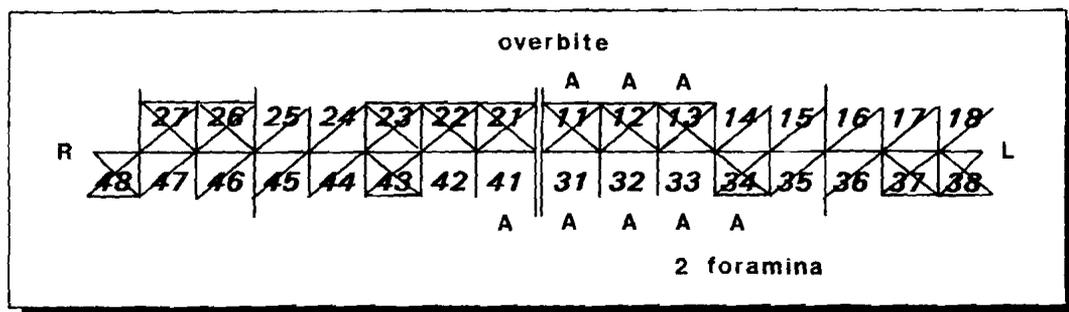


Figure 18-5 The teeth of skeleton 0380-L (found in trench BE96-11) represented according to the conventions of the *Fédération de Dentiste Internationale*.

- ⓪ = not erupted;
- 24 = lost during life;
- X = lost post-mortem;
- C = caries;
- A = absces.

A very distinguishing feature was the pronounced overbite with the incisors of the maxilla pointing forward at an angle of about 45° from their normal vertical position. Apart from the serious dental and parodontal disease shown in Figure 18-5, undoubtedly partly caused by the described overbite, no pathological changes were present. Remarkable is the presence of two mental foramina in the left side of the mandible. The tibiae and the feet of the skeleton could not be studied, as they were left in situ just outside the trench, in the north baulk (Plate 18-6).

The second skeleton, number 3472-L, that was recognised as such during excavation, was unearthed in one of the small rooms or foundation cells in trench BE96-9 (locus 063). It was found on its right side, facing west, with the head pointing south. The neck was bent backwards into a position that can not be maintained by a living person. The skull and the pelvis were completely crushed and could not be studied (cf. Plate 3-67, p. 85). Most of the lower extremities were missing, although a few of these bones were found in other loci. The bones were of an adult male with an estimated stature of 1.71 m (5' 7½") who died at an age of 30-40 years. The relevant anthropometric data that could be retrieved are given in table 18-8. Most bones were quite sturdy with pronounced places of tendon insertion, indicating a once muscular individual (Plate 18-7). No pathologic changes were present and only guesses, such as an accident or murder, can be made concerning the reasons behind the remarkable position of the skeleton and the unusual place of its burial.



Plate 18-6 The West side of the North baulk of trench BE96-11, where the proximal ends of the tibiae of skeleton 0380-L can be seen *in situ*. Photo by B.J. Seldenthuis.

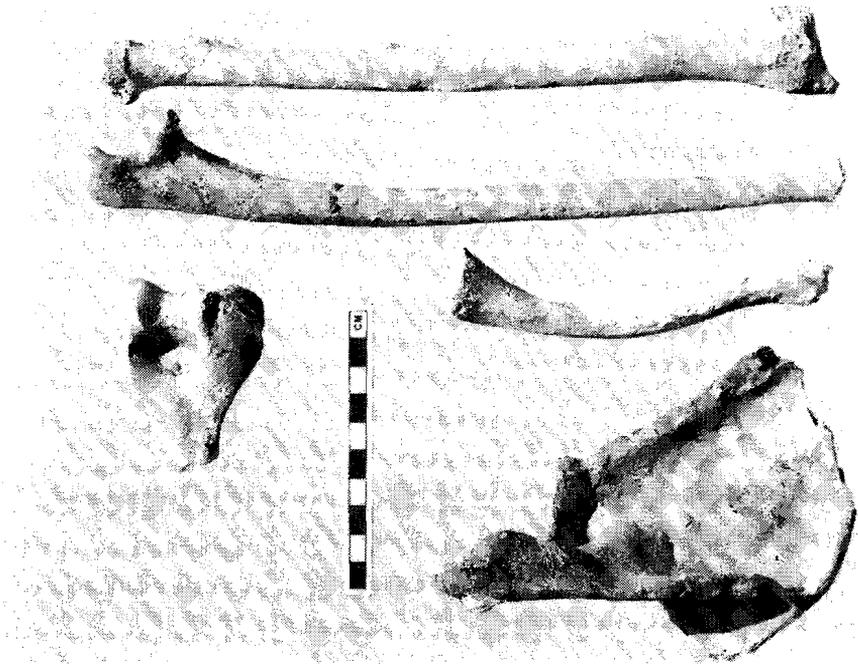


Plate 18-8 Bones from the upper extremities of skeleton 3472-L. Note the sturdy appearance of especially the radius (at the top). Photo by B.J. Seldenthuis.

Bone	Length	MBC	Index	DH	BW
Right clavicle					
Right humerus	316	74	23.4	47	62
Right radius					
Right ulna					
Right femur				48	
Right tibia	383	86	22.5		
Right fibula					
Left clavicle					
Left humerus					
Left radius	250	47	18.8		
Left ulna	272	49	18.0		
Left femur					
Left tibia					
Left fibula					

Table 18-8 Anthropomorphic measurements (in mm) of the long bones from locus BE96-9.063 (skeleton 3472-L). For abbreviations see p. 390.

The bones of skeleton number 4060-L, found in trench BE95/96-7 (locus 033), were not immediately recognised as being human, but turned out to be of a prematurely born infant. The retrieved bones are listed in table 18-9. The short length, 54.4 mm, of the only complete long bone, the left tibia, suggests that the infant was prematurely born, and died not long thereafter, since the minimum length of a tibia that is considered normal at birth is 62.8 mm for boys and 63.2 mm for girls (Plate 18-10). The skeleton was found in a sediment and debris locus, not immediately beneath any recognizably associated floors or surfaces. There were no finds associated with the skeleton and no observations on the position or the orientation were made.

Two occipital bones
Two temporal bones
Mandible fragment
Other fragments of the skull

Seven vertebra halves
Three ribs

Right scapula
Ulna? (BE95/96-07.058)
Two distal femora
Left tibia (54.4 mm)
Distal right tibia

Table 18-9 All fetal bones excavated in trench BE95/96-7. All but one were found in locus 033.

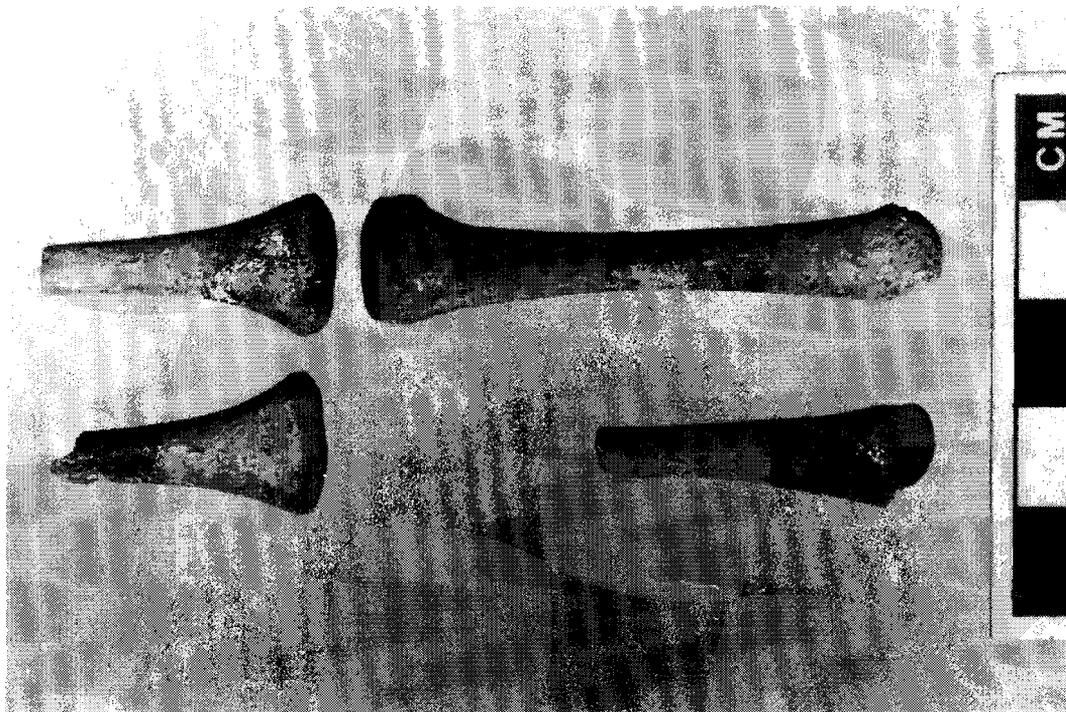


Plate 18-10 The lower extremities of fetal skeleton 4060-L (found in BE95/96-7). The left tibia (54.4 mm) is the only long bone that was unearthed intact. Photo by H. Barnard.

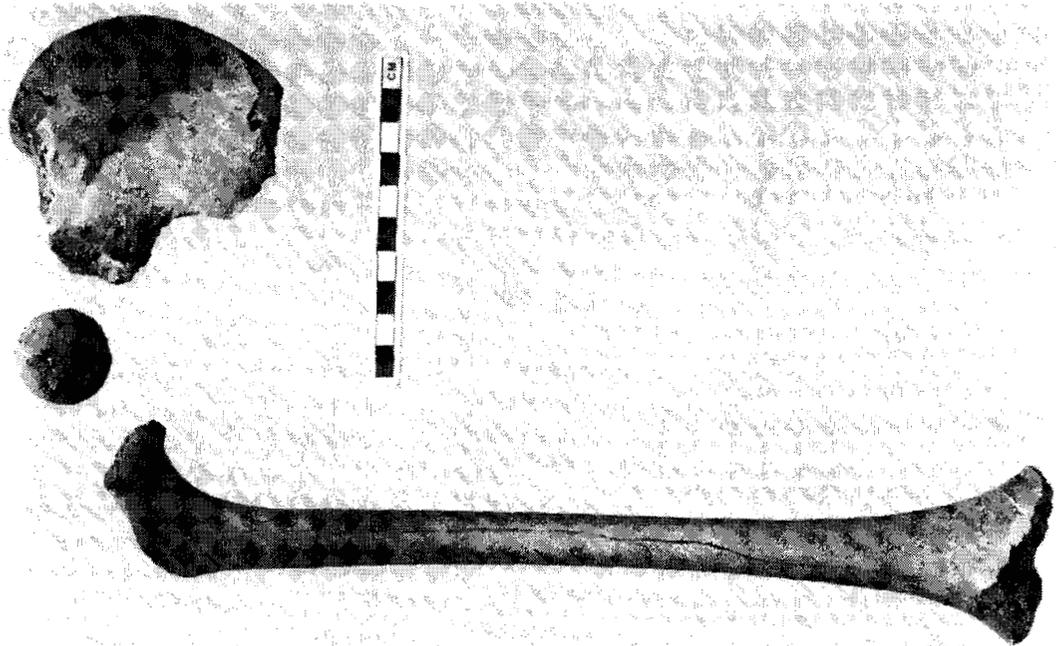


Plate 18-11 Femur and part of the pelvis of a child, found in locus BE96-11.005 (see also table 18-1). Photo by B.J. Seldenthuis.

Ceramics from BE95/96-7.033 were late first to second century AD; a single unidentifiable coin from BE95/96-7.033 was a Roman pre-294/296 AD issue from Alexandria. A small fragment of a bone that might be one of the ulnae of this skeleton was found in a completely different locus, on the other side of a wall. The burial of babies, that died shortly before or after birth, in ordinary houses has been common practice in Egypt and Nubia for a long time (Barnard 1993). Finding a fetal skeleton here may imply that locus 033 was part of a habitational layer, rather than of a large public building (referred to as "building F") that can be seen on the surface. Since no obvious floor was associated with the skeleton, another possibility is that the dead infant was discarded in this building which was, at that time, out of use. The excavation of this skeleton, as well as fragments of the skeletons of other children (Figure 18-1, Plate 18-11), indicates that Berenike was, at least during certain periods, inhabited by a, more or less normal, population of men, women and children.

18.2 THE BURIALS

A large number of graves can be seen in the environs of Berenike, and even more if these are examined as far as Hitan Rayan and Hitan Shenshef (two fifth to sixth century AD settlements southwest of Berenike). Most of these graves appear to be ancient, either Ptolemaic or Roman to early Byzantine period, but some are modern. In order to be able to distinguish between the different types, it was necessary to study a number of them especially since only a few of these types have been described before.

The oldest graves, that date from the first century AD according to the pottery found associated with them, are about 2 x 1 m, oval or square in plan and made of a single layer of large flat stones covering a dug grave. They are not obviously orientated north-south or east-west and a small number of them occur along the ancient road between Hitan Rayan and Hitan Shenshef (Sidebotham and Zitterkopf 1996: 398-400 and Chapter 20). The graves close to the hydreuma in Wadi Kalalat may belong to the same type, but have been so severely damaged by the wadi flow as to preclude determination of their plans (Sidebotham and Zitterkopf 1996: 389-390).

Graves from the fourth to the sixth century AD are extant in abundance in and around Berenike and on roads linking Berenike, Hitan Rayan, Hitan Shenshef and Wadi Kalalat. These graves consist of a wall (about 0.75 m high x 0.50 m wide), with large stones on both faces and filled in with rubble, that forms a circle (with a diameter of ca. 3-4 m) around a stone box containing the body.



Plate 18-13 A number of disturbed, ancient graves on hill top 'E'. Photo by B.J. Seldenthuis.

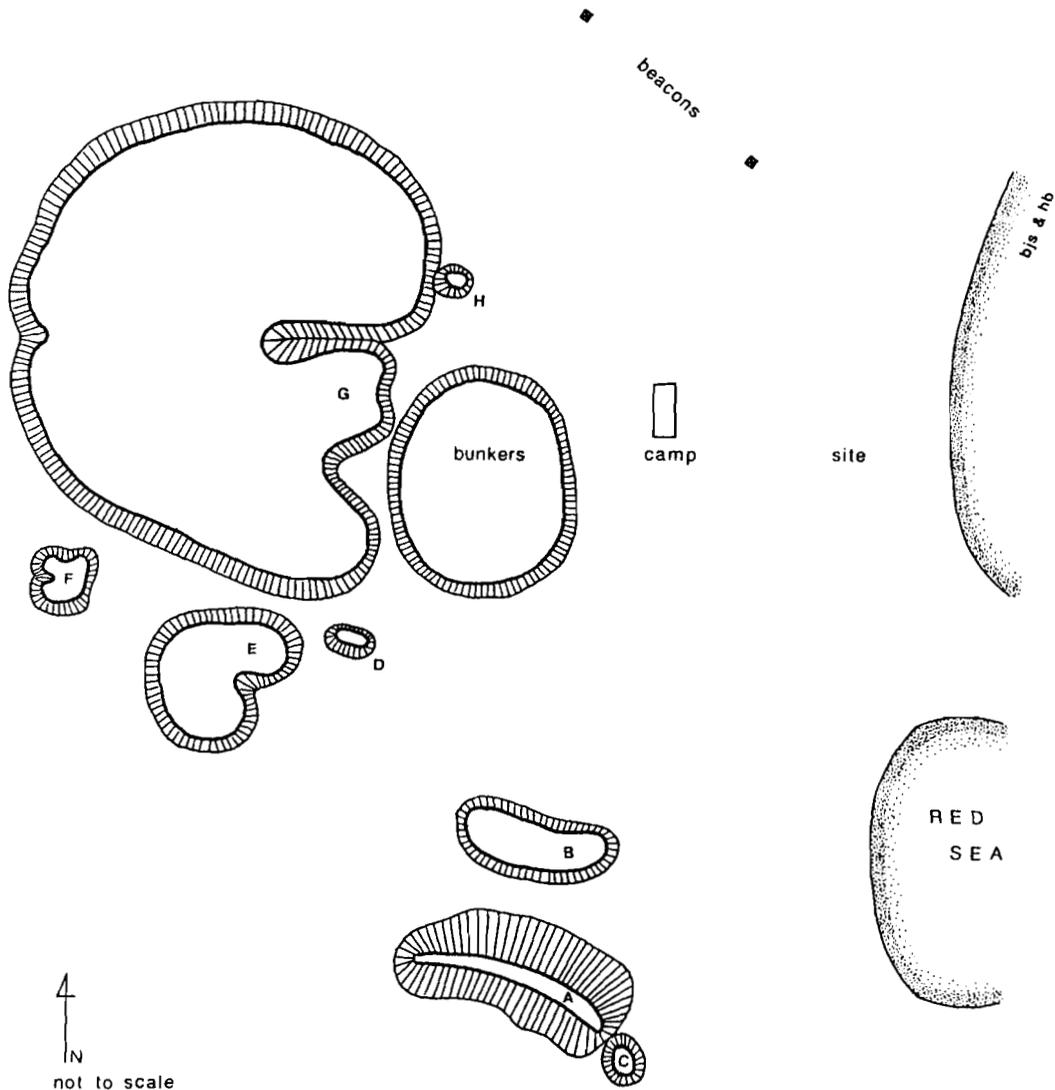


Figure 18-12 Sketch map of grave concentrations around Berenike. A: 155; B: 42; C:7; D: 12; E: 25; F: 10; G: 246 and H: 21 graves. Drawing by B.J. Seldenthuis and H. Barnard.

During the survey of Hitan Rayan a dozen of these graves were seen, and during the survey of Shenshef over a hundred (Aldsworth and Barnard 1996b: 437-440 and Chapter 20). Field walking in the proximity of Berenike yielded over 500 of these graves, all on the flat-topped hills to the west and the southwest of the main site (Plate 18-12, Figure 18-13).² Unfortunately, no intact grave has yet been found; all of them have been heavily disturbed and yielded only small fragments of bones and pottery.

² These figures were provided by J.E.M.F. Bos and B.J. Seldenthuis.

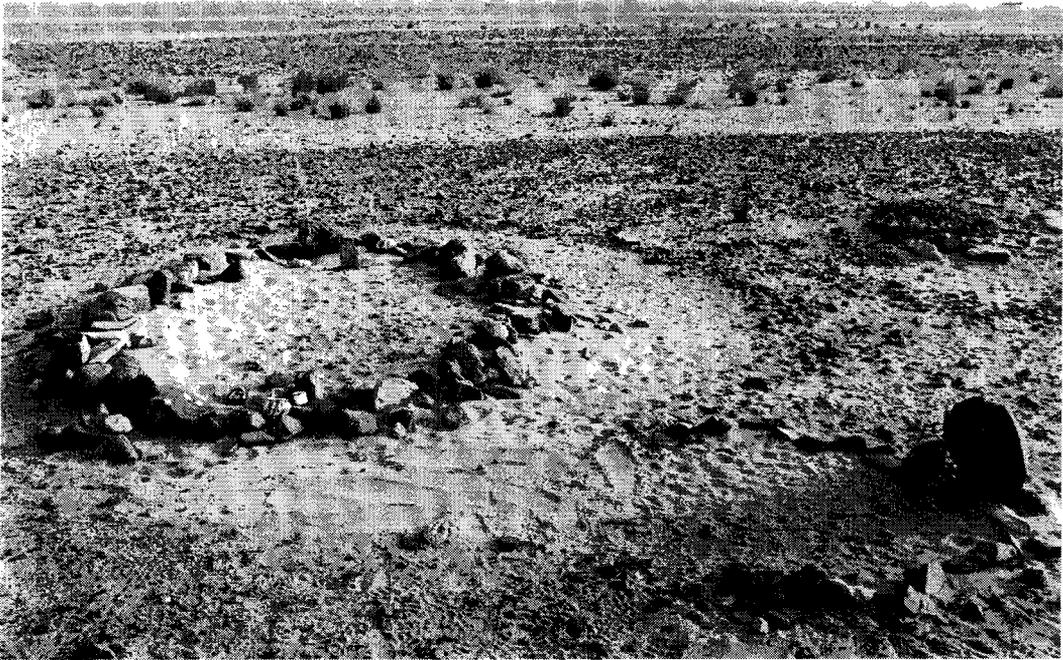


Plate 18-14 Modern Ababda Bedouin grave near Manazig, just south of Berenike.
Photo by H. Barnard.

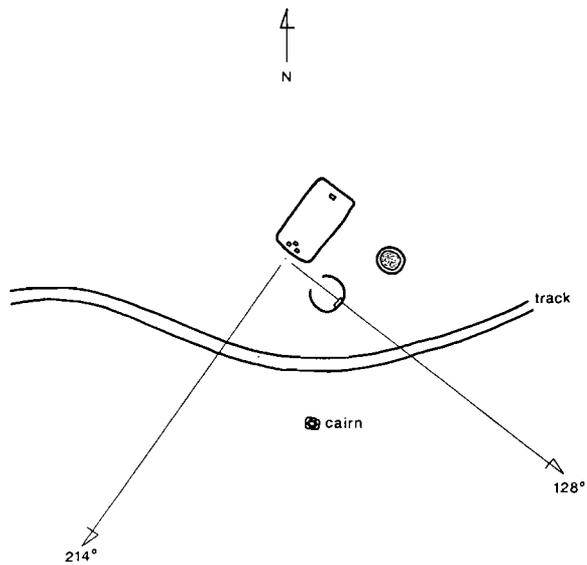


Figure 18-15 Sketch map indicating the relative position and orientation of a modern Ababda Bedouin grave and its surrounding structures. Drawing by H. Barnard.



Plate 18-16 Part of Bedouin graveyard in Wadi Shenshef, looking North. The ranging rod is divided into blocks of 50 cm. Photo by H. Barnard.

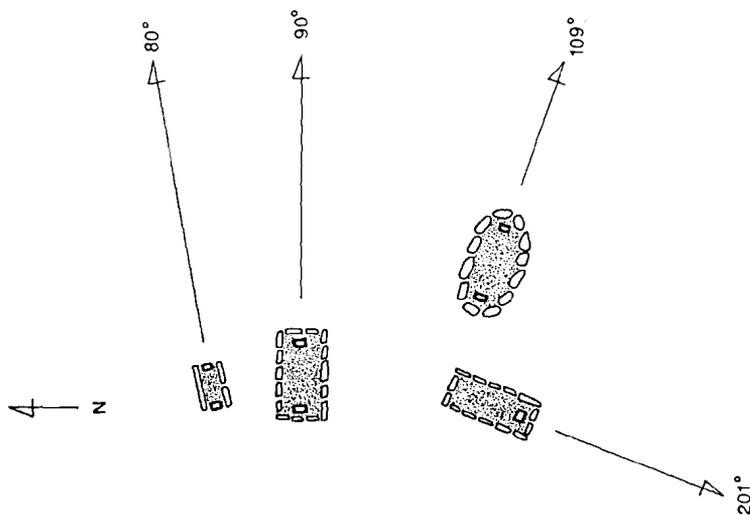


Figure 18-17 Sketch map indicating the relative position and orientation of a number of Bedouin graves in Wadi Shenshef. Drawing by H. Barnard.

Modern graves in the vicinity of Berenike have been made by the local Ababda Bedouin and, therefore, reflect their Islamic faith. A quite elaborate and relatively recent grave, approximately 30-40 years old, was found just off the track between Manazig, a small village about 15 km south of Berenike, and the paved road (Plate 18-14 and the map in Chapter 2). This grave consists of an oval of large stones, lining a dug grave. In this grave the body is said to have been put on its right side, with the head pointing south, so that it faces Mecca. A footstone and three headstones, between which the tea pot and the tea cup of the deceased were placed, complete the grave proper. Three structures are associated with this grave, that was obviously made for an important man: a small mihrab, an empty niche indicating the kibla (the direction of Mecca), a cairn on the other side of the track indicating the position of the grave and a small mound of rubble with an unknown function, but most likely a secondary grave. The orientation of the grave is 214° off magnetic north, while the mihrab indicates a kibla of 128° off magnetic north, the true kibla in Berenike being 123° off magnetic north (Figure 18-15).

That this method has not always been common practice can be seen in the small, relatively modern graveyard in Wadi Shenshef (Plate 18-16). Here, the general plan of the graves is the same and a number are laid out in the same direction as the grave in Manazig, but more are built east-west (Figure 18-17). It is probable that the bodies have been placed face-down in these graves with the heads towards the east: more or less in praying position and towards Mecca. The explanation given by the Ababda Bedouin, that in the old days the exact direction of Mecca was unknown, seems unlikely since the difference in orientation is over 90° . They also admitted to remodelling the grave of the local sheikh of Arab Saleh to accommodate their present practices which, during future research, may give an indication as to the time of transition.

It is obvious that the remains and graves of the people that once inhabited Berenike can tell us something about their lives. Future research will yield additional evidence on the burial practices in both antiquity and more recent times.