

# A possible Link between the Jemdet Nasr and the Umm an-Nar Graves of Oman

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DURING THE winter of 1972/73 a Danish archaeological team with the permission and generous support of the Oman government carried out investigations and excavations along the Wadi Jizzi/Suq connecting the Buraimi oasis across the Hajar range with Sohar on the Gulf of Oman coast. Further investigations were undertaken in the Ibri area well over 100 km south east of Buraimi and linked to this by an age-old caravan route along the Western foot of the Hajar range.<sup>1</sup>

The Buraimi oasis is divided between the Sultanate of Oman and the Emirate of Abu Dhabi. The village giving name to the oasis, plus the Southern part of the Jebel Hafit with the village named Hafit, belongs to Oman. The town of Al-Ain is in Abu Dhabi territory.

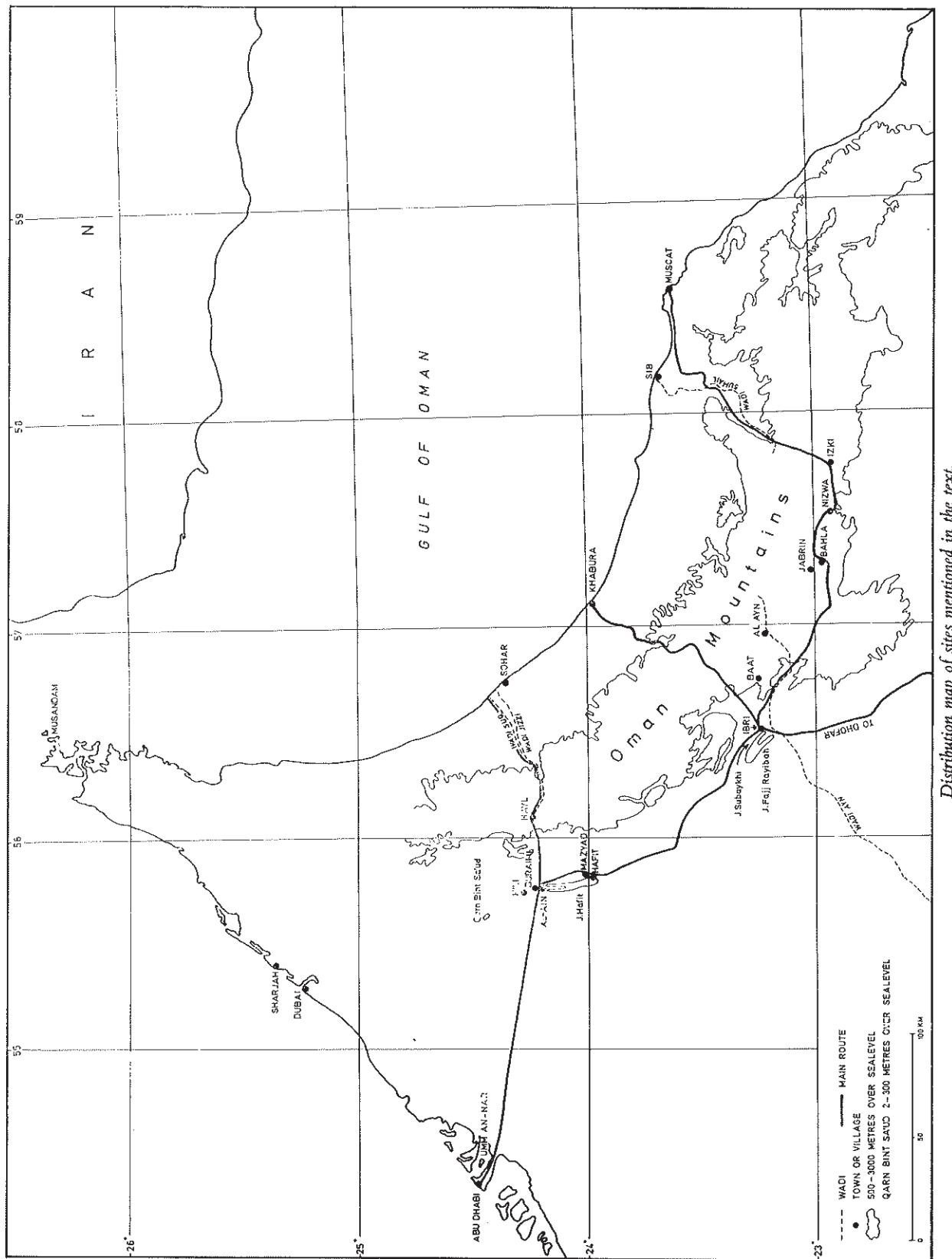
The well-watered oasis has from old been a key point in the caravan trade, with tracks going out to the coast on both sides of the Oman peninsula and the one to Ibri leading into the interior. At the end of one of the tracks to the West coast the small island of Umm-an-Nar was found to have a settlement from the first half of the 3rd millennium B.C. and about 50 circular stone graves built of fashioned blocks for collective burials from the same period. Groups of similar graves occur in Buraimi; at Hili in connection with remains of a fortified mudbrick tower; and on the Northern outskirts of the oasis at Qarn Bint Sa'ud.<sup>2</sup>

The Umm an-Nar culture has strong connections with SE Persia, where it is related to Bampur V-VI and Yahya IV B.<sup>3</sup> It is also found in the earliest levels of Bahrain's Barbar culture. Some of the storage jars point towards Mesopotamia's E.D.I., an etched carnelian bead towards the Indus,<sup>4</sup> while a couple of lapis lazuli beads have come ultimately from Badakhshan in Afghanistan, probably either via the Indus or through Southern Persia.<sup>5</sup> The impression of wealthy and organized communities with far-flung trade connections seems to exceed what the fisheries of the Gulf and the date crops of Buraimi would warrant. A background in metals and stones from the mountains of Oman and in its fertile valleys would be a likely explanation.

During the campaign in Oman a number of Umm an-Nar graves was located along the Wadi Jizzi besides an even greater number of Iron age graves, but especially the Ibri area showed a concentration of graves that was remarkable.

Ibri is the administration and market town of a district with several villages and extensive date gardens, like Buraimi watered by the falaj system. It is the last fertile outpost Northwest of the Oman mountains, before the plain merges into the Empty Quarter. From here tracks cross the mountains out to the coastal towns on the Gulf of Oman. 130 km to the Northwest is Buraimi, and towards the South

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### *Distribution map of sites mentioned in the text.*

are the old incense lands of Dhofar and Hadhramaut. Ibri is from old like Buraimi a natural station on a route from South Arabia and from inner Oman out to both Gulf coasts.

It is not surprising then, that many periods are represented in the graves here, ranging from Iron age graves of the 1st millennium B.C. to Umm an-Nar graves from the 3rd and Jemdet Nasr graves of the late 4th millennium B.C.

About 3 km West of Ibri opposite the village of Hijar and at the foot of the Jebel Fajj Raybah a group of low cairns had been badly disturbed by removal of stones. During a surface examination part of a biconical jar of orange-brown ware was collected from the scanty remains of one of these graves, which was subsequently excavated.

#### **Grave 1141 (Fig. 13 and Plates 1, 2)**

The grave appeared as a slight elevation with a few stones left and hardly any construction visible. Excavation uncovered an irregular chamber, 1.50 × 2.00 m, filled with drift sand and stones from the wall. The remaining wall was ½ m high and consisted of two courses of unfashioned local stones. There was no burial layer, not even a proper floor level left. The upper part of the jar found during the survey came from the Northwest part of the chamber among the remains of the wall, and more fragments were found during the excavation, all very close together. A second jar was recovered from the Southwest part of the chamber, and a few fragments of human bones were picked up among the debris.

#### **Contents of Grave 1141:**

- A. Biconical jar of orange-brown fine ware, medium-fired, with bevelled rim and flat base. The surface was damaged, so that no trace of paint or slip, if any, had remained. Found broken on Northwest edge of grave among wall-stones. Possibly in situ or only slightly dislocated. (Fig. 1 and Plate 13).
- B. Biconical jar of orange-brown sand-tempered micaceous ware with bevelled rim and flat base. Surface damaged and now without slip or painting. Found in Southeast part of grave close to wall. (Fig. 2).

By itself this grave is not very informative with poorly preserved pottery and not enough left to deduce a construction. Yet it belongs to an important category of graves located along the old track from Ibri to Buraimi, again on the Northern outskirts of the oasis at Qarn Bint Sa'ud, but in especially large numbers in its Southern part, in the Jebel Hafit area.

Along the East side of the Jebel Hafit from near its South point and north-over along the foot of the 30 km long and ca 1100 m high limestone mountain there are stone grave mounds, scattered or in groups, until about 10 km outside the town of Al-Ain. Here the mountain peters out in two long low North-South ridges, like a two-pronged fork with the green date-gardens of Al-Ain as a fat morsel at the end. Between the prongs run low gravel hills, and here again on the plateau and on the Western ridge are grave mounds in considerable numbers, though the need of building material for the growing town has been hard on them.

The West side of the mountain massif faces an extensive area of sand-dunes. No graves have been found here. They seem to be concentrated in two areas, one centred on Al-Ain and one on the two villages on the East side of the mountain, Mazyad and Hafit. No survey has yet brought to light any trace of the corresponding settlements, possibly because they are to be found under the present habitation.

The graves appear as mounds of stone and later accumulated soil. About 50 of them have been examined. They date back to the late 4th or early 3rd millennium B.C., and in many of them Jemdet Nasr pottery has been found. At a much later date several of them have been re-used and in addition to the

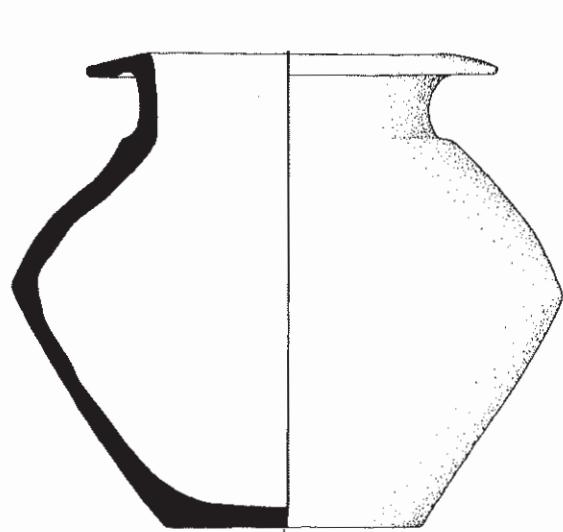


FIG. 1. *Jar of orange-brown ware with damaged surface and no trace of slip or paint from Grave 1141 near Ibri. 1:4*

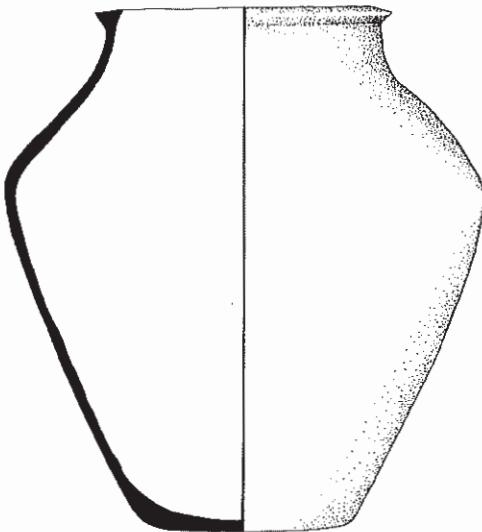


FIG. 2. *Jar of orange-brown ware with no trace of slip or paint left, from Grave 1141 near Ibri. 1:4*

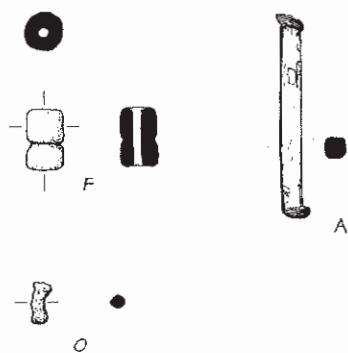


FIG. 3. *Hafit Grave 1317: A + O Copper rivet 1:2  
F Bluegreen faience bead 1:1*

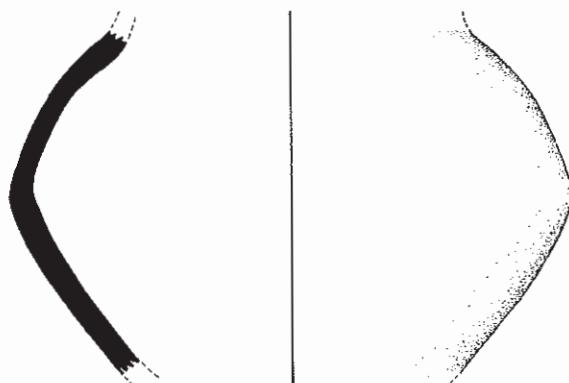


FIG. 4. *Hafit Grave 1317: Carinated jar of red-brown ware. 1:4*

primary grave contain a burial with grave-furniture from the early half of the 1st millennium B.C.

The main part of the examined graves belong to the Al-Ain centred group. But on the East side of the Hafit, 4-5 km North of Mazyad six mounds were excavated during the winter of 1971 by a Danish team working for the government of Abu Dhabi.<sup>6</sup>

The two Southernmost of the examined graves were located 4-5 km Northwest of Mazyad directly at the foot of the mountain, one on the edge of and the second in the midst of a small wadi. They were part of a group of at least a dozen mounds within a radius of 50-100 m. Many such groups are found both North and South of this one, some placed in the wadis and some on plateaus 10-20 m above the wadis. The size of a grave varies between 4 and 8 m in diam. with a few exceptions even larger, and not many are more than 2-2.50 m high. They are built of the local stones scattered in profusion over the wadis, and the more accessible of them have during later years been loaded on trucks and carried off for construction purposes.

**Grave 1317 (Fig. 14–16 and Plate 3)**

This was one of the few fairly intact graves. A little more than 2 m high, the circular mound had a diam. of 7 m, but the outline was difficult to determine exactly, since part of the outer wall had collapsed.

The over 2 m thick wall consisted, as became clear from one of the later excavated graves, of an outer and an inner wall surrounding a small chamber only 2 m in diam. The walls were built of unfashioned stones: large blocks of 60–70 × 20–30 cm in the lower courses. About one metre up from the ground long, narrow blocks were used, with one end pointing towards the chamber, together with head sized irregular stones. From here, too, the walls began sloping towards the chamber, leaving at the top only a narrow gap to be covered with a few slabs.

The entrance was without much difficulty located on the South side. Its frame and the passage were constructed of large flattish blocks, and a substantial slab, 1.20 × 0.70 m, that had slid to the foot of the mound, must be the doorstone. The 2.30 m long passage was 1.20 m high on the outside and 1.05 m entering the chamber. The outer half had been packed closely with stones, whereas the inner half was only partly filled up.

The chamber was filled with drift sand and in the bottom 50 cm the remains of the burials were found among what looked like several layers of unconnected slabs, but must be the floor paving. Possibly the paving was originally laid on a levelling layer of sand.

Only one skeleton (B) was preserved enough to show that it had been lying on its left side with the drawn up-legs towards West. An unconnected skull (D) found a little further North may belong to this skeleton. Several bones, including fragments of one or more skulls, were found at a slightly lower level, but still concentrated in the Eastern half of the chamber.

Among the bones were found 3 substantial rivets of coppery bronze<sup>7</sup> (A, C, E) (Fig. 3.A) and a few small greenglazed cylindrical beads (F, G, H, J, K). There was nothing to indicate if the dead person had been wrapped in a shroud or placed on mats.

Only the Southern half of the mound was cleared of rubble and in addition to that a 1.50 m broad space along the wall near the entrance, where a layer of hand-sized stones suggested a paving. Among the paving just outside the entrance were found a nail or rivet of copper/bronze (Fig. 3.O) and fragments of a biconical jar of red-brown ware (Fig. 3.N).

**Contents of Grave 1317:**

- A. Copper/bronze rivet 5 cm long and 0.5 cm thick with flat-hammered ends and square section. Found in Southern part of chamber, about 40 cm above floor (Fig. 3.A).
- C. Copper/bronze rivet of size and shape like A, found in Southwest part of chamber, same level as A.
- E. Copper/bronze rivet of size and shape like A, found in centre of chamber about 30 cm above floor.
- F. Segmented greenglazed bead 0.8 × 0.4 cm, found in Southeast part of chamber about 30 cm above floor (Fig. 3.F).
- G. Segmented greenglazed bead like F, found during sifting of sand from burial layer about 30 cm above floor.
- H. Small greenglazed cylindrical bead 0.5 × 0.5 cm, found in South part of chamber about 10 cm above floor.
- J. Segmented greenglazed bead like F, found in North part of chamber about 15 cm above floor.
- K. Small greenglazed cylindrical bead 0.4 × 0.4 cm, found during sifting of sand from burial layer.
- N. 28 sherds of red-brown micaceous ware from body of carinated jar, found scattered on paving outside entrance (Fig. 4).
- O. Copper/bronze rivet 1 × 0.3 cm, found on paving outside entrance (Fig. 3.O).

**Grave 1318 (Fig. 18 and Plate 4)**

This cairn-grave was in a wadi about 50 m North of grave 1317 on sloping terrain. The ca 3 m high wall was preserved in its full height on the North side, whereas the Southern part with the entrance had partly collapsed. The outer diam. was about 6 m, but the grave looked irregular, because a 1 m high supporting wall apparently had been added on the North and East side. Actually this must have been part of the outer wall the rest of which had disappeared. When rubble had been removed it became clear, that the grave had already been opened from the top, where the roof-slabs were missing.

The grave was filled with drift sand and stones from the collapsed part of the wall, but nothing else was left, not even bone fragments. The chamber was about 2 m in diam. at floor level, slightly smaller than the one in grave 1317. There were no remains of paving, but a 20 cm thick very compact layer of sand formed the floor.

**Grave 1319 (Fig. 17 and Plate 5)**

Nearly 500 m Northwest of graves 1317-18, this grave was on a plateau in the 360 m contour (Map CB 7055: Jebel Hafit 1:10,000), about 10 m higher than the two previous graves.

This grave was chosen because it looked slightly different from the rest, squarish in form and with an extra circular wall built all the way round, but only halfway up the 3 m high centre. It was, however, the plundered and partly collapsed state of the grave that happened to give an idea of the usual construction of these Hafit graves. The very thick wall had been built in two tempi and consisted really of two concentric walls, which at once explained the so-called supporting wall of grave 1318. Either during the plundering, which had taken place from a hole in the top, or later during collapse the upper part of the outer wall had disappeared.

The entrance, blocked by collapsed wall, was on the South side with a 1.30 m high passage, that was 0.60 m wide at floor level and 0.10—0.20 m under the roof slabs. The passage was packed with stones through its 2.50 m length.

The chamber was 2 m in diam. at floor level and was filled with drift sand. The natural gravel surface served as floor, though possibly with a layer of sand. Near the bottom were found a copper/bronze rivet (Fig. 5.C) and two fragments of the same copper/bronze pin lying half a metre apart (Fig. 5.A).

**Contents of Grave 1319:**

- A. 5 cm long end-fragment of copper/bronze pin, flat-hammered 1-2 cm from the end, very corroded. Found close to the Southeast part of the wall and 10-15 cm above floor. Fits together with fragment B. (Fig. 5.A).
- B. 7.8 cm long pointed fragment of copper/bronze pin. Found near centre of chamber a few cm above floor. From same pin as A.
- C. 4.5 cm long copper/bronze rivet with circular cross-section, but ending in flat-hammered heads. Found mid-way between A and B a few cm above floor (Fig. 5.C).

**Grave 1320 (Fig. 19-20 and Plate 6)**

About 50 m Southeast of grave 1319 on a 5-10 m lower plateau and 10 m North of a small wadi this fairly small stone-mound covered with sand and rubble looked too humble to tempt any treasure hunter. Many of the large blocks from the bottom courses of the outer wall had been removed. But the perfect curving without a flattened or concave top suggested that the chamber was still intact.

The construction was the same as in the previous graves, more pronounced here perhaps. The bottom blocks more larger and were regularly right-angled, while in the upper part the oblong radially placed stones were prominent. The outer wall was vertical about one metre up, the inner wall started curving at the floor. The top hole had not been covered with a couple of large slabs, but with a number of head-sized stones heaped up and still in place in the Northeast part.

The passage on the South side was built of long flattish blocks and packed tightly with stones, partly because the outer section had collapsed and was difficult to define.

The chamber was filled with the usual sterile sand until about 25 cm above the floor, where the burial layer began. The bones were in a bad state of preservation. Three skulls could be identified, two in the West and one in the Eastern part of the chamber. The rest of the bones were too scattered and fragmentary for safe conclusions to be drawn about orientation or position, although the Eastern skeleton (T) seems to have been facing East with the legs towards South.

One small carinated jar (*Fig. 7 and Plate 14*) was lying overturned behind the two skulls near the West wall, while a similar slightly larger vessel was standing upright 30–40 cm from the North wall (*Fig. 8*). A number of beads were found, nearly all of them of the ring-shaped or short cylindrical variety (*Fig. 6, B, E, M*). Most of them were the fragile blue-green faience beads known from several of the Hafit graves. But carnelian, quartz and a marble-like stone were also represented, and one was a pierced shell (*Fig. 6.G*). Several were just stray finds, when the bottom layer of sand was sifted, but there seemed to be a concentration round skull T and in the Northeast corner of the chamber.

There was nothing to indicate that passage or chamber had been paved. The rock bottom served as floor, possibly with a levelling layer of sand. No traces of coffins or mats or of any clothing at all could be discerned. Although the grave-furniture looked poor the grave has not necessarily been disturbed previously. The scattering of bones and objects was no more than time and animals could have brought about. The relatively few beads found through very careful sifting and brushing of the burial layer would not amount to a necklace, but if this had consisted chiefly of coloured faience beads it would easily have been ground to dust without any interferences but the sand and the wind.

#### Contents of Grave 1320:

- A. Sherd of red-brown micaceous ware, found 12 cm above jar S to which it belongs.
- B. Ring-shaped carnelian bead 0.7 × 0.3 cm, found near West wall of chamber (*Fig. 6.B*).
- C. Cylindrical green faience bead 0.2 × 0.2 cm, found in Southeast part of chamber.
- D. Bead like C, found in Northeast part of grave.
- E. Ring-shaped bead of colourless quartz 1 × 0.3 cm, found in North part of chamber (*Fig. 6.E*).
- F. Ring-shaped carnelian bead 0.8 × 0.4 cm, found in North part of chamber.
- G. Small pierced shell, striped in white and brown, probably used as bead, found 15 cm West of skull K in West part of chamber (*Fig. 6.G*).
- H. Bead of quartz like E, found 25 cm West of jar S.
- I. Bead of quartz like E, found 15 cm Southwest of skull J.
- L. Faience bead like C, found in connection with skull K.
- M. Cylindrical, faintly pink bead of marble-like stone 0.6 × 0.5 cm, found just North of jar S (*Fig. 6.M*).
- N. Stone bead like M, found 40 cm Northwest of M.
- O. Beads found during sifting of sand from burial layer: 1 ring-shaped carnelian bead like B and 7 faience beads like C.
- P. Biconical jar of red-brown micaceous ware (*Fig. 7, 39*).

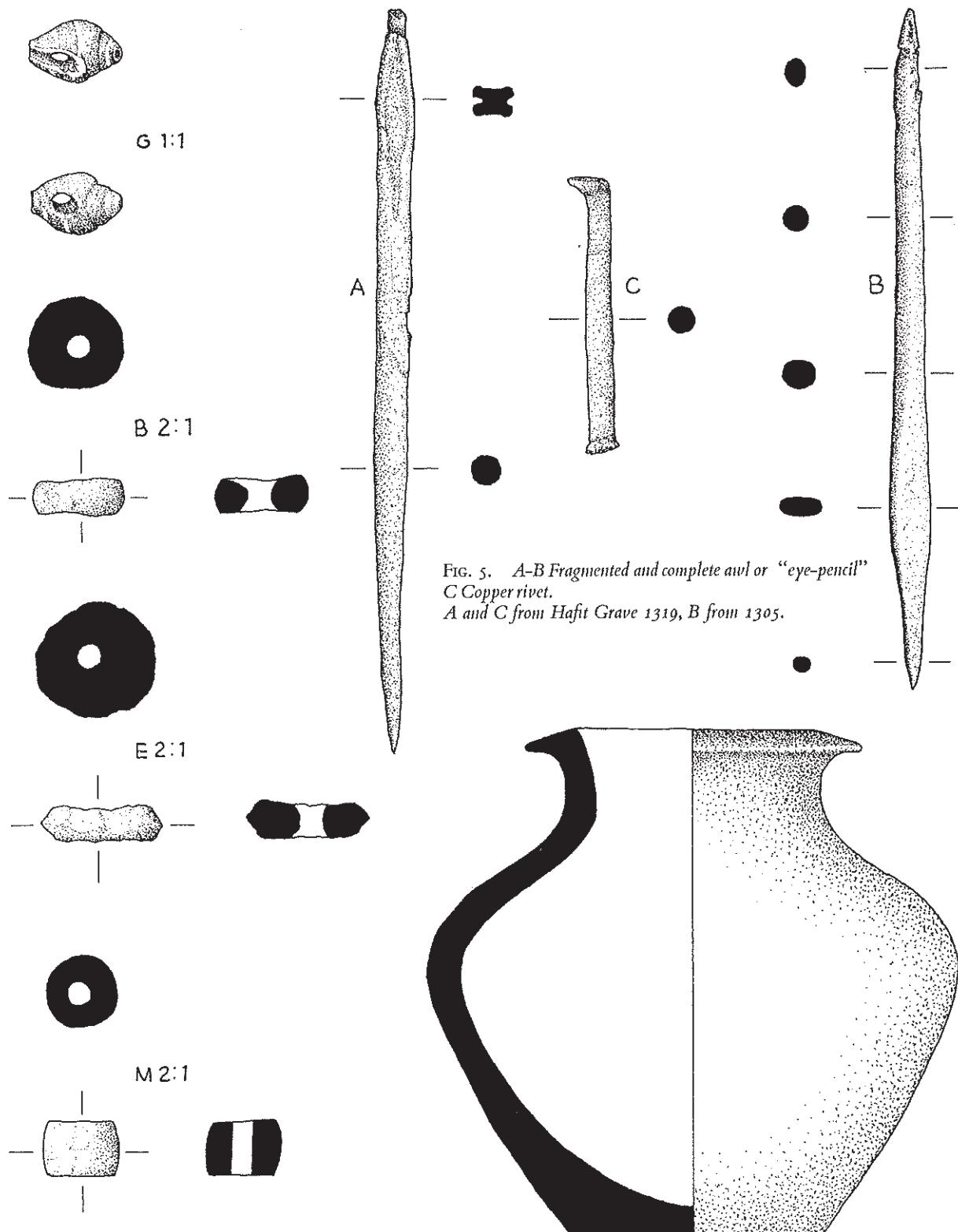
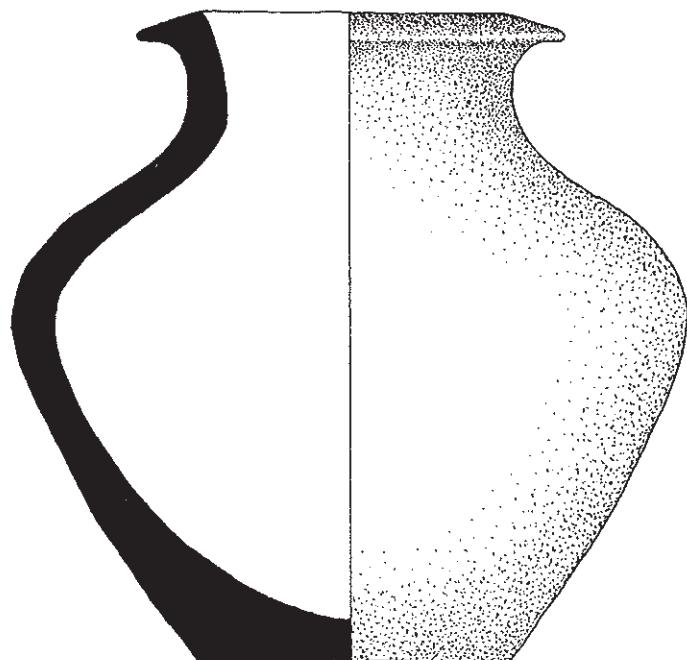


FIG. 7. Jar of red-brown ware from Hafit Grave 1320.



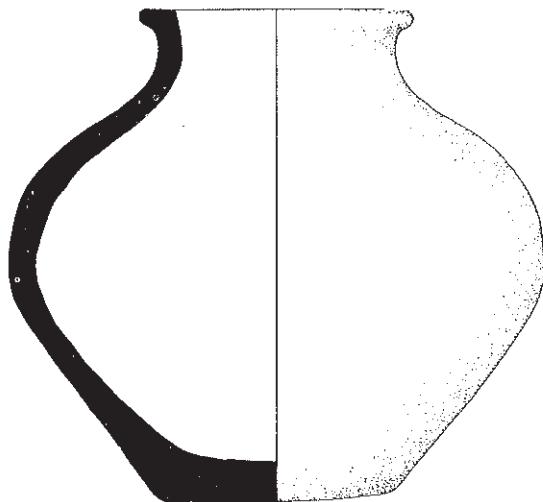


FIG. 8. *Jar of red-brown ware from Hafit Grave 1320.*

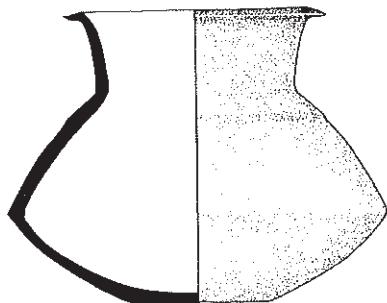


FIG. 9. *Jar of fine greenish ware from Hafit Grave 1321.*

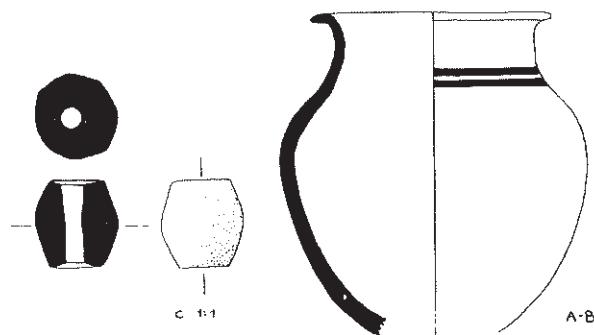


FIG. 11. *From Beehive Grave 1137 at Bat: A-B Jar of fine buff ware with black bands. C Bead of mottled black-green serpentine.*



FIG. 10. *Rim from carinated jar of red-brown ware from Hafit Grave 1321.*

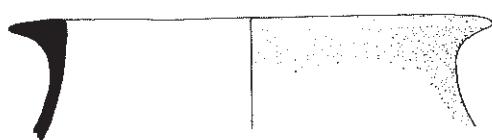


FIG. 12. *Rim from jar of buff ware from Beehive Grave 1138 at Bat.*

- Q. 36 blue-green faience beads like C, found scattered over chamber, especially in North and East part, all near the bottom or in cracks in the rock.
- R. Bead of quartz like E, found in North part of chamber.
- S. Biconical jar of red-brown micaceous ware with surface damaged, but traces of plum-red painting on lower part of body. Found standing upright, cracked, but nearly complete on floor in North part of chamber. One sherd (A) was found in the sand above and a second sherd (Z) was found on the floor under Northeast part of wall (Fig. 8).
- U. Stone bead like M and found about 30 cm East of this.
- V. Stone bead like M, found 20 cm Northwest of skull T.
- X. Stone bead like M, found 25 cm North of this.
- Y. Bead of quartz like E, found a few cm from X.
- Z. Sherd of red-brown ware, found on floor under Northeast wall and belonging to jar S.
- AA. Biconical carnelian bead 1 x 0.5 cm, found during sifting of sand from burial layer.
- AC. Sherd from jar S, found during sifting of sand from burial layer.

**Grave 1321**

This badly ruined grave was 350 m North of grave 1320 on the same level: about 5-6 m above the flat plain, close to the foot of the mountain. The damage was evidently caused by stone collectors. Large tyre tracks skirted this and several grave-ruins in the neighbourhood.

The outer wall had gone completely, but the passage on the South side was preserved in its full length with one of the covering slabs still in place and showed the diam. of the mound to have been 6 m as in grave 1320. The inner wall was left standing less than one metre high, but gave the outline of the chamber.

So out of a sad ruin came nevertheless a recognisable grave, in construction, size and material similar to grave 1320. On its paved floor a damaged, but exquisite jar of a fine greenish ware was found in under the wall on the West side of the entrance (*Plate 7*), while a rim-fragment of red-brown micaceous ware (*Fig. 10*) was recovered from near the North wall and 4 small greenglazed faience beads were picked up among the paving along the East wall. Two sherds matching the rim-fragment came to light among the rubble at the outer entrance.

**Contents of Grave 1321:**

- A. Biconical jar of finely levigated greenish clay with faint traces visible of the turning of the wheel and a low ridge on the shoulder. Found under the chamber wall on the paved floor just West of the passage. The recent damage to its side must have happened during the stone-robbing (*Fig. 9, Plates 7 and 15*).
- B. Fragment from flat rim of red-brown micaceous ware, found on floor near North wall of chamber. Two fragments of similar ware were picked up among the rubble at the outer entrance (*Fig. 10*).
- C. 4 green-glazed cylindrical faience beads 0.3 x 0.3 cm, found among the floor-flags along the East wall.

The grave furniture from this group of graves on the East side of the Jebel Hafit and from the one in a group near Ibri is closely associated with the finds from similar graves in the Al-Ain centred group previously excavated by the Danish Expedition and most of which have been published.<sup>8</sup> Two graves examined by amateurs and published by Dr. E. During Caspers almost certainly come from this group near Al-Ain too.<sup>9</sup>

The pottery is wheel-turned. The surface has in many cases suffered badly, so that all trace of slip or painting has gone. But a few of the carinated jars still have a plum-red painted surface with shoulder-panels of black or dark-brown vertical bands alternating with cross-hatching and diamond patterns on cream background like the painted Jemdet Nasr pottery from Mesopotamia.

None of the seven jars here published shows marks of shoulder ornamentation. One has faint traces of plum-red painting near the base (*Fig. 8*), while one has remains of a cream slip left (*Fig. 4*). The orange or red-brown micaceous ware of six of them is usual for the Oman Jemdet Nasr pottery, while a fine orange or a remarkable fine cream-coloured<sup>10</sup> or slightly greenish ware (*Fig. 9*) occasionally occurs in the graves together with coarser ware.

Nose lugs or unpierced knobs on the shoulder have not been found on the Oman Jemdet Nasr pots, and the shoulder ridge when present is only just indicated. This could be a difference between grave ware and settlement ware, but may also be a matter of chronology<sup>11</sup> denoting the Hafit and Ibri Jemdet Nasr as early in the period.

At Tepe Yahya in South Iran, the nearest settlement with Jemdet Nasr pottery, the jars are storage vessels and have nose lugs. They start in Yahya IV C, dated 3400-3000 B.C.<sup>12</sup>. Shoulder ridges pierced for

suspending strings and meandering ridges often ending in snake heads are characteristic features of Umm an-Nar pottery. The meandering ridges occur in Yahya IV B and C of which B is contemporary with Umm an-Nar.<sup>13</sup>

Of the coppery bronze objects only the pin or awl (*Fig. 5.A*) has a characteristic shape. When complete it has two pointed ends and a flattened part near one end. This hammered-out part is apt to split as if for the inserting of a handle. Such corroding and splitting fragments were found in several of the Al-Ain centred graves and might be taken for the remains of a pair of tweezers. This was suggestive, since small toilet sets including a pair of tweezers, an awl and maybe a knife often used to extract thorns are still carried in small leather cases by the Bedouins. The more complete specimens found in later excavated Hafit graves suggest that they are awls or possibly "eye-pencils". Similar pins have been used by later Arabs for an antimony paste, kohl, still applied as an eye-cosmetic that is supposed to keep off the sun's glare.

The beads are small and unpretentious. The blue-green faience beads are known from other Hafit graves as well as from Mesopotamian Jemdet Nasr and from Predynastic Egypt. They look like slovenly work, but then they must have been manufactured by thousands. The Egyptians knew as early as the 4th millennium B.C. a method of self-glazing used also to manufacture cylindrical blue beads. The core consisting of stalks of grain, that were dipped in a slip, disappeared during firing, leaving a tube that could be broken into lengths of the desired size. They have thin irregular walls and powder easily.<sup>14</sup>

Carnelian beads are found in several Hafit graves, but are more common in Umm an-Nar graves. The ring-shaped beads of crystal and of a marble-like pink limestone have not previously been found in Oman graves. Pink limestone was commonly used for bowls and beads in the Jemdet Nasr graves of Ur.<sup>15</sup>

The Hafit dead, where it has been possible to ascertain their position, were laid on their side with the hands in front of the face and the knees drawn up. This is consistent with Jemdet Nasr graves in Mesopotamia, but there the graves are single grave interments.<sup>16</sup> The "family"-cairn of Hafit with 2-3, occasionally 4-5 burials in the same chamber, is special for Oman Jemdet Nasr. At a later period, in the 1st half of the 3rd millennium B.C., the collective Umm an-Nar graves with their chamber systems may contain 30-40 individuals.

There is a clear difference in the construction as well as in the use of the two grave types, but since they occur in the same area and are close in time also, it must be an obvious question, if the more complex and refined Umm an-Nar graves maybe developed from the well-built, but simpler Jemdet Nasr graves.

A convincing demonstration of this is given by a large necropolis near the village of Bat 25 km East of Ibri, just before the Jebel Akhdar closes in. On a low terrasse bordered on the West side by a wadi and on the East side by spurs of rock the necropolis stretches 800 m from North to South and 1-200 m from East to West. Within this area there are about 100 circular stone graves, most of them with a diam. between 5 and 10 m, all of them disturbed.

The North end of the site is the best preserved, though probably the oldest part of the cemetery (*Plate 8*). Here the beehive-shaped tombs are in some cases preserved to their original height of 3-4 m with a diam. of 7-8 m, most of which consist of two or three curtain walls with hand-sized stones between (*Fig. 21-23 and Plate 11*). They are built of the brownish limestone, that dominate the surrounding country and which flake in brick-like shapes ready for use (*Plate 14*). A low plinth, about half a metre wide, runs all the way round on the outside. The triangular entrance and passage faces South or West. The 2.50 m long passage is about 1 m high and 0.50 m wide (*Plate 10*) and has been closed with a solid stone packing. The floor of passage and chamber is paved with large stone slabs, the roof is a false dome.

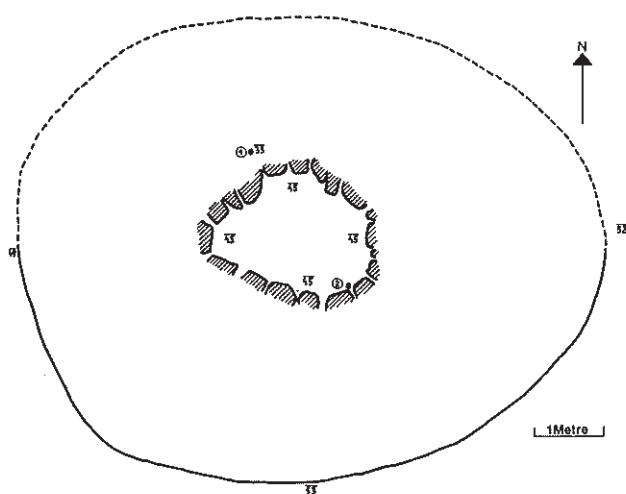
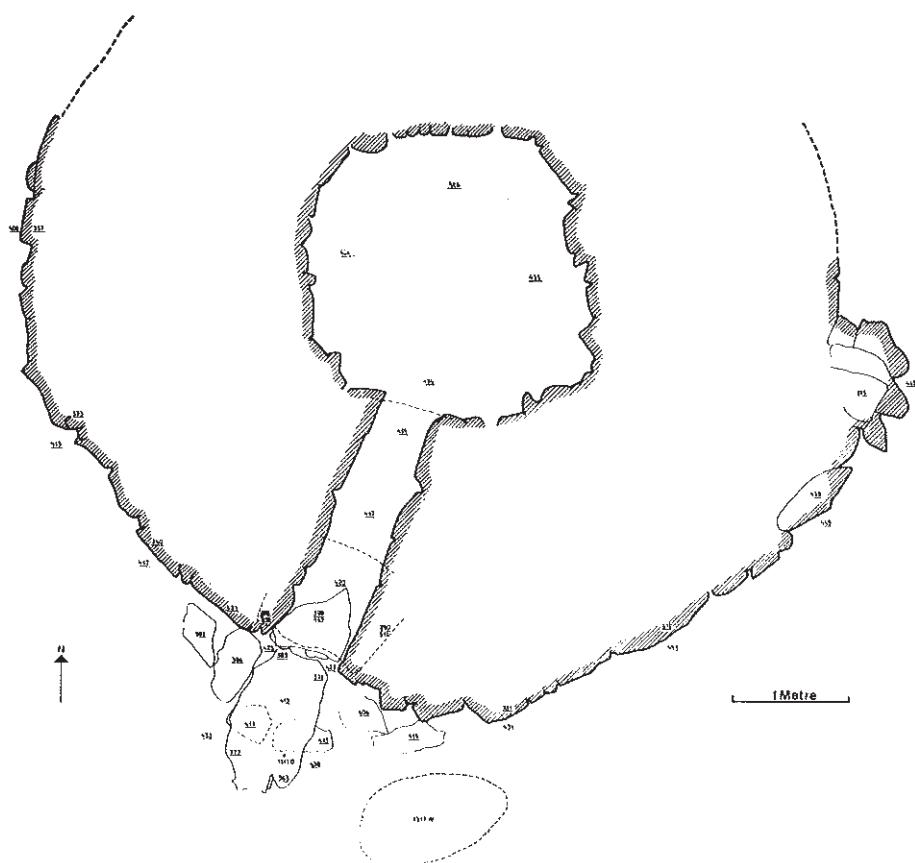


FIG. 13. *Plan of ruined grave 1141 near Ibri with finding place of jar A (1) and B (2). The outline of the grave was uncertain.*



But spanning the relatively small chamber ( $2 \times 2.50$  m) was apparently not possible without a supporting wall that jutted out from the inner wall as far as the centre of the chamber.

The two excavated graves had been plundered. In one was left a fragmentary jar of fine buff ware with everted rim and black lines round the shoulder, and a biconical bead of mottled black serpentine (Fig. 11) besides a few fragments of human bones. In the other grave was found only a rimsherd from an everted flat rim of buff ware (Fig. 12). The other graves were more cursorily examined. No pottery was found scattered among any of the grave-ruins in the North part of the cemetery.

From those few finds it is not possible to tell if the graves were constructed for a single burial or planned as collective graves. The painted jar is not unlike the Umm an-Nar pottery, a rim fragment is similar to the Hafit and Ibri Jemdet Nasr. The graves too are built like the Hafit/Ibri graves, only larger.

About halfway through the necropolis the character of the graves changes. There is still an inner and an outer wall, but less thick, leaving more space for the chamber, while it becomes necessary to expand the inner supporting walls, thus splitting the grave up into two or more chambers, the model of the Umm an-Nar grave (Fig. 24-25). In the ring-wall the brick-shaped stones are replaced by large roughly cut limestone blocks (Plate 12), and at least in a number of graves these had a facing of smaller, carefully fashioned white limestones, about  $20 \times 25$  cm or smaller, with a slightly curving front and a lumpy, faintly pointed back, known also from the Hili grave in Buraimi.

The pottery in these graves is typical Umm an-Nar: the fine Black-on-Red, the Grey Incised and Painted, the suspension vessel with net-pattern. The sherds are numerous and found scattered among the graves.

If the development of the Hafit/Ibri Jemdet Nasr graves through the Bat Beehives to Umm an-Nar looks plausible, what then about the inmates of the graves and their possessions? Does Umm an-Nar derive from the Oman Jemdet Nasr? Or is there, after all, a sudden break in the grave ritual and pottery sequence? For a comparison of the pottery there is not enough material yet. So the answer is still buried in the Bat necropolis. Or it may be found in the substantial settlement remains with at least 3rd millennium sherds located around Bat.

Modern prospectors have now re-located extensive deposits of copper in the Oman mountains, many of which have been worked in the past.<sup>17</sup> Whatever their relationship it is highly likely that the grave-builders of Bat/Ibri and Buraimi were all engaged in the copper trade from inner Oman with Buraimi as a market place at the crossroads and Umm an-Nar as one of their shipping places.

<sup>1</sup> The results of the Danish campaign in Oman 1972/73 are being published in the forthcoming Vol. XXV, No. 3/4, 1975 of *East and West*, Rome. The present paper deals with one or two of the more important aspects, linking them up with earlier investigations in Abu Dhabi.

<sup>2</sup> K. Thorvildsen "Burial cairns on Umm an-Nar", *Kuml*, Aarhus, 1962, pp. 191-219; T. G. Bibby, *Looking for Dilmun*, New York 1969, p. 272 seq.; K. Frifelt, "Jemdat Nasr graves in the Oman", *Kuml* 1970, p. 376 seq.; Frifelt 1975 cit.

<sup>3</sup> Frifelt op. cit. 1960, p. 374 and fig. 4-7.

<sup>4</sup> M. S. Vats, *Excavations at Harappa I*, Delhi 1940, p. 400.

<sup>5</sup> M. Tosi, "The Lapis Lazuli Trade across the Iranian Plateau in the 3rd Millennium B.C.", *Studi in Onore di G. Tucci*, Napoli 1974, p. 1-20.

<sup>6</sup> Both in Abu Dhabi and Oman the Expedition has profited from the assistance and ample support of Oil Companies as well as local Governments, not to mention the private hospitality met with in the Oil Compound as in the village and among the Bedouins.

<sup>7</sup> The rivets were examined by the Laboratory at the Moesgaard Museum and pronounced too corroded for analysis.

<sup>8</sup> Frifelt, op. cit. 1970, p. 377 seq. and fig. 1 and 8-22.

<sup>9</sup> E. C. L. During Caspers, "New archaeological Evidence for Maritime Trade in the Persian Gulf during the Late Protoliterate Period," *East & West XXI*, No. 1-2, 1971, p. 27 seq. and fig. 3-7.

<sup>10</sup> Frifelt, op. cit. 1970, fig. 21.C and 22.A.

<sup>11</sup> During Caspers, op. cit., pp. 42-43.

<sup>12</sup> C. C. Lamberg-Karlovski and M. Tosi, "Shahr-i Sokhta and Tepe Yahya: Tracks on the Earliest History of the Iranian Plateau", *East & West*, XXIII, No. 1-2, 1971, p. 36 and fig. 104.

<sup>13</sup> Frifelt op. cit. 1970, fig. 7; L.-K. and Tosi, op. cit. fig. 113 and p. 44.

<sup>14</sup> Ch. Kiefer and A. Allibert, "Pharaonic Blue Ceramics: The Process of Self-Glazing", *Archaeology* 24, 1971, p. 110 and 116.

<sup>15</sup> L. Woolley, *Ur Excavations IV: The Early Periods*, Philadelphia 1955, p. 32.

<sup>16</sup> Ur IV cit., p. 33 and pl. 54-55.

<sup>17</sup> Prospection Limited, Toronto, Canada has since 1972 carried out extensive prospection for metals in Oman and found a remarkable number of copper occurrences, some with excellent veins of high grade copper.

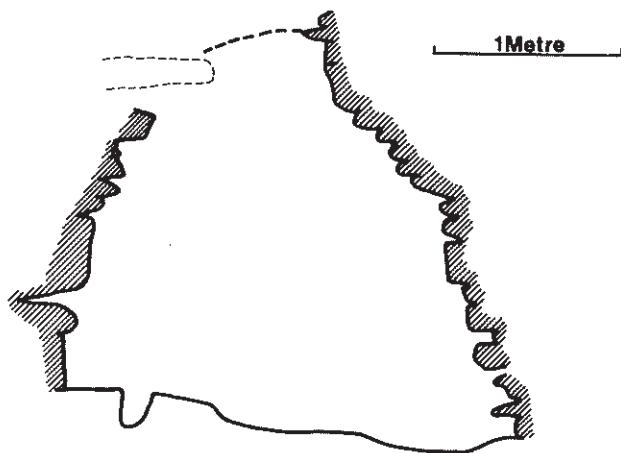


FIG. 15. Section of chamber in Hafit Grave 1317.

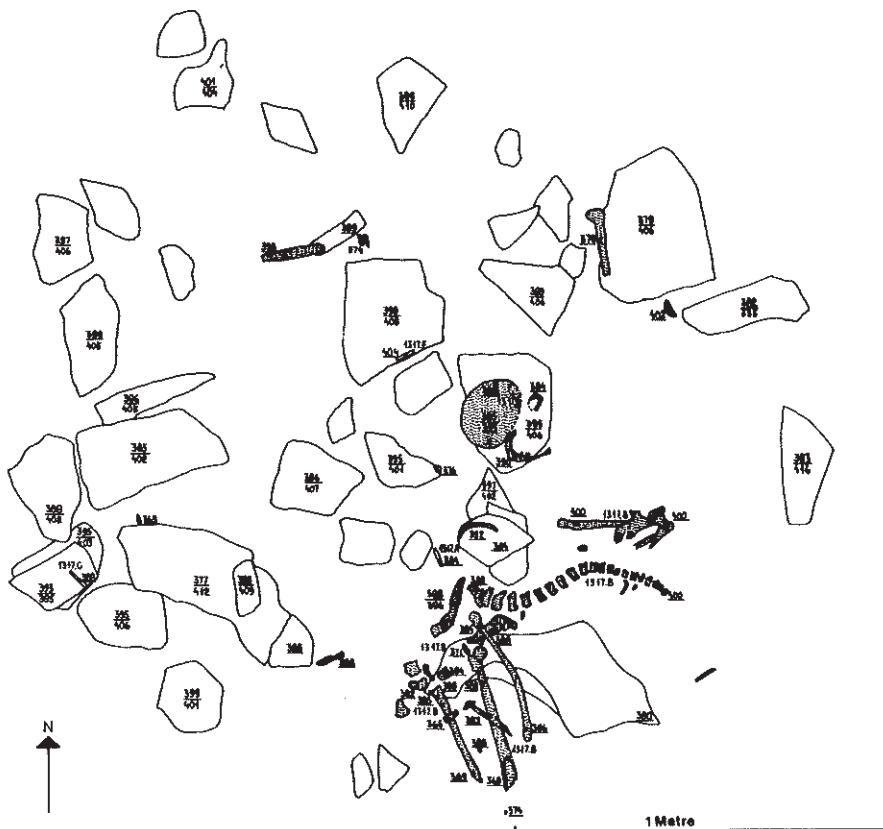


FIG. 16. Upper burial layer of Hafit Grave 1317. Floor paving and bones had been dislocated in the loose sand and occurred in several levels. This skeleton had been placed on its left side with drawn-up legs towards West.

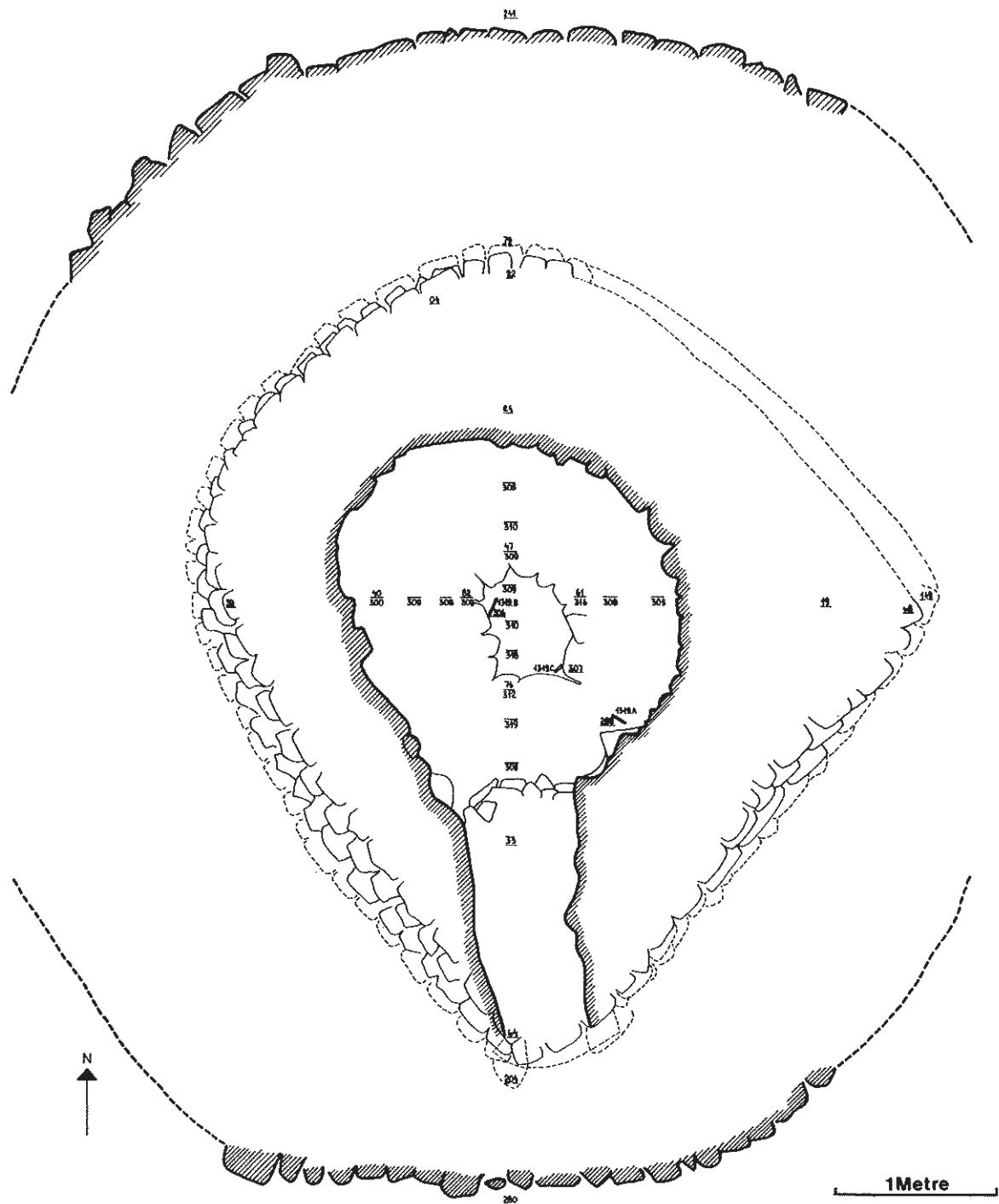


FIG. 17. Plan of Hafit Grave 1319 showing that the massive ring-wall consisted of a circular outer wall and a squarish inner wall. Note the narrow opening at the top.

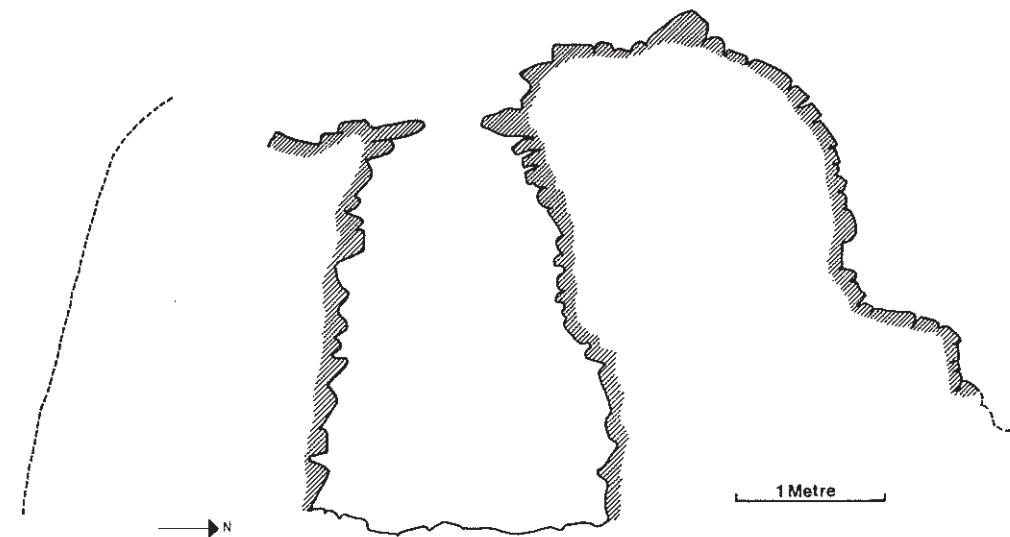
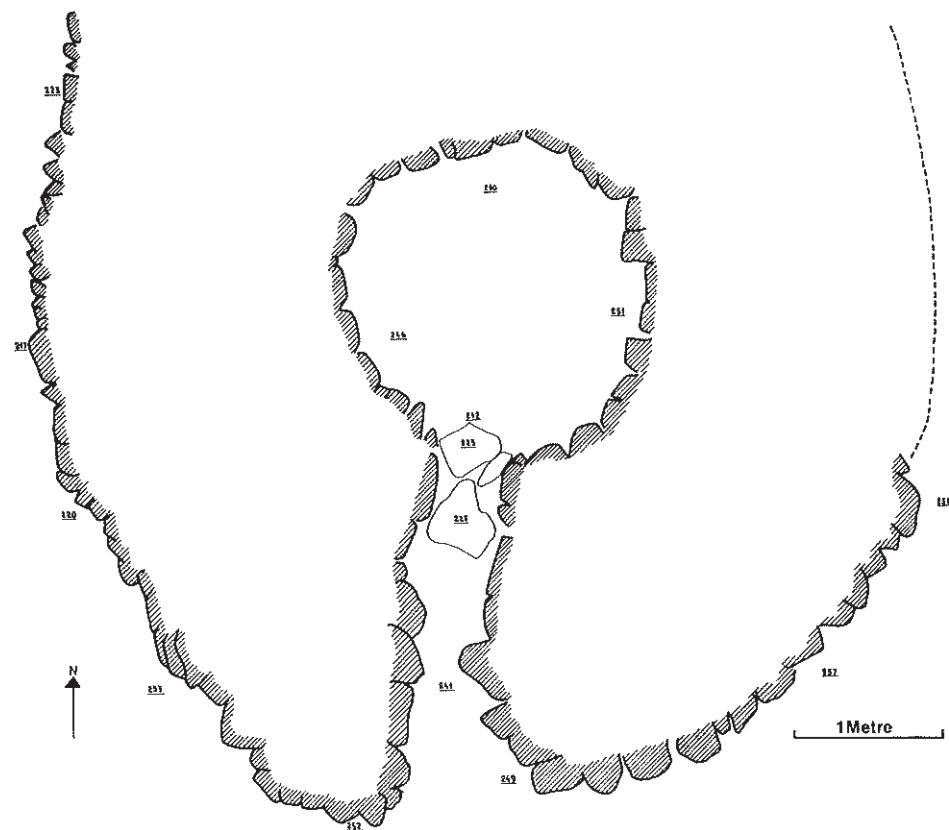


FIG. 18. Section through Hafit Grave 1318 showing that upper part of outer wall on North side had disappeared. Note how the gap narrows at the top.



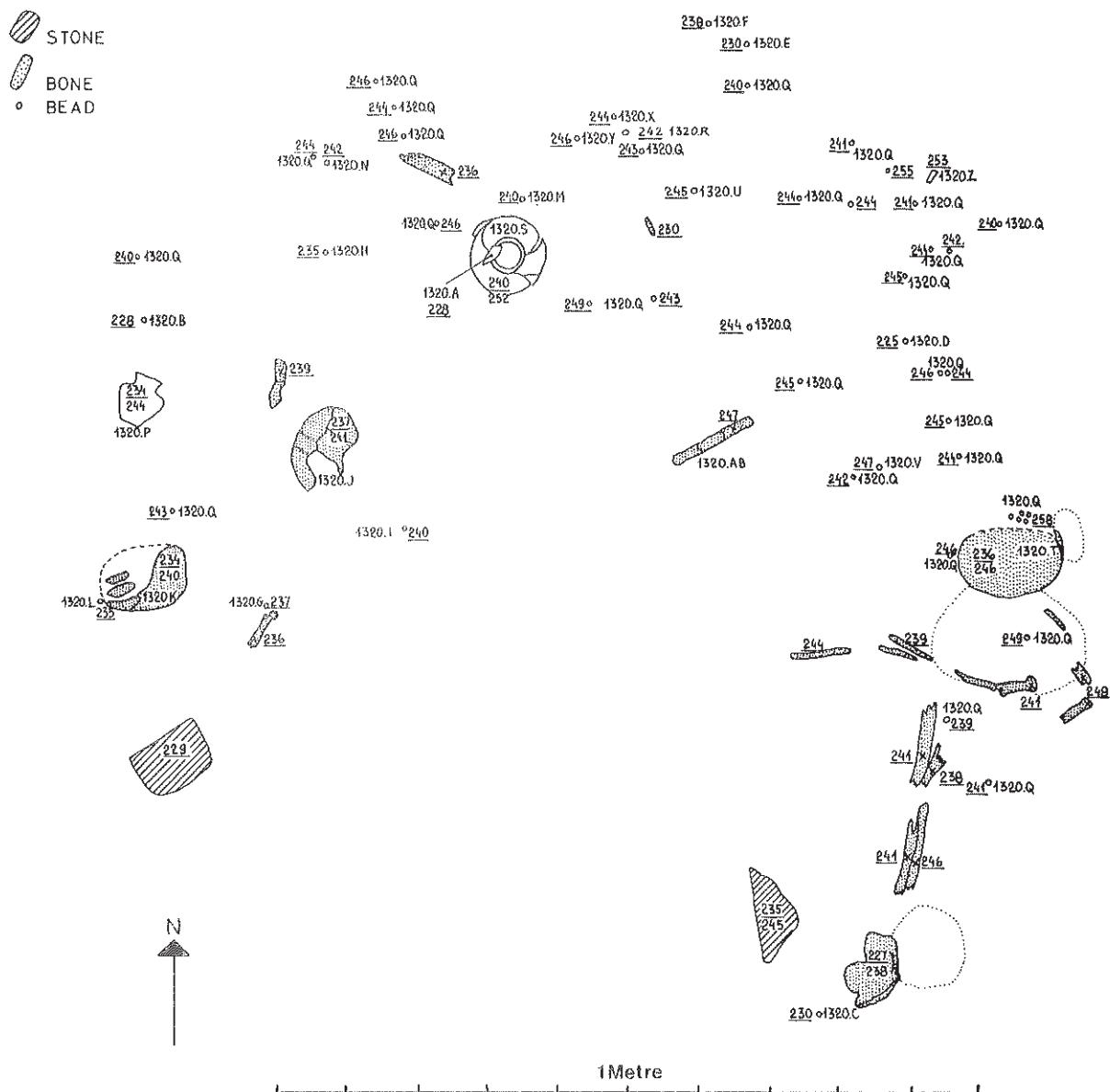


FIG. 20. *Plan of chamber with burial layer of Hafit Grave 1320.*

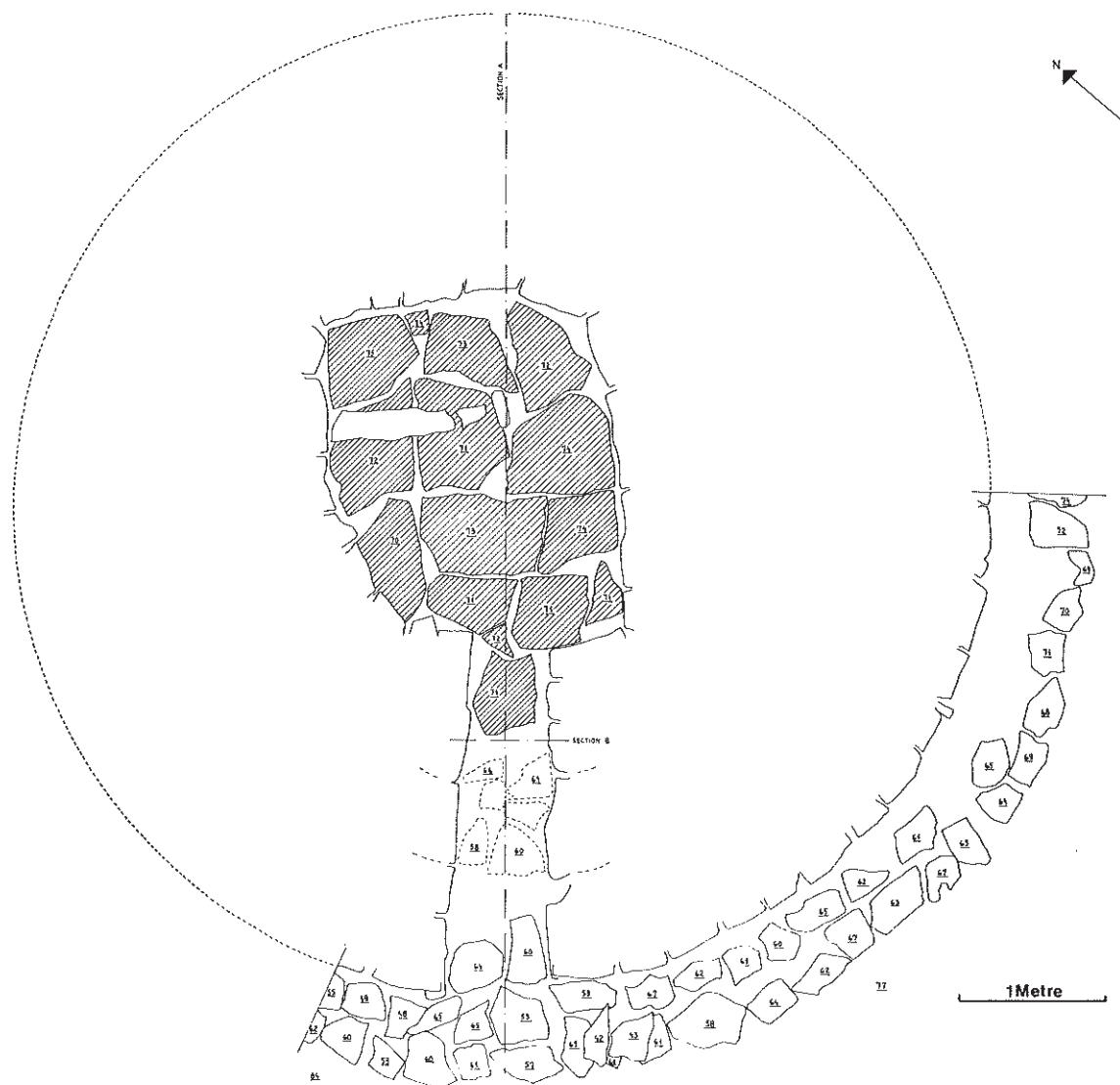


FIG. 21. Plan of Bat Beehive Grave 1137. Note plinth along the outer ring-wall and remains of a supporting wall in the chamber, paved with stone slabs.

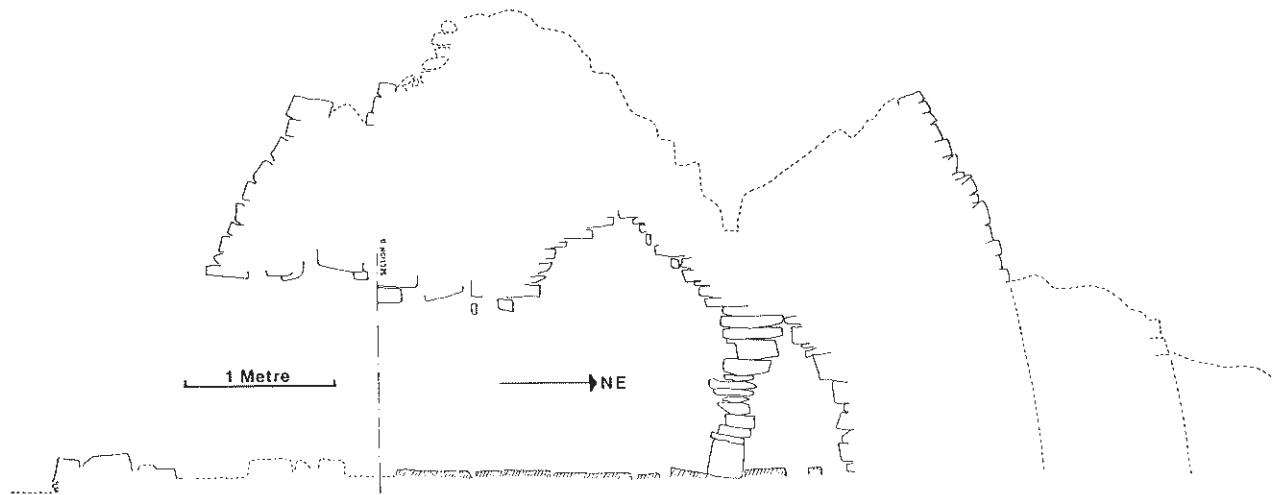


FIG. 22. Section through Bat Beehive Grave 1137 showing rather unsafe supporting wall in chamber and robber's hole in the top.

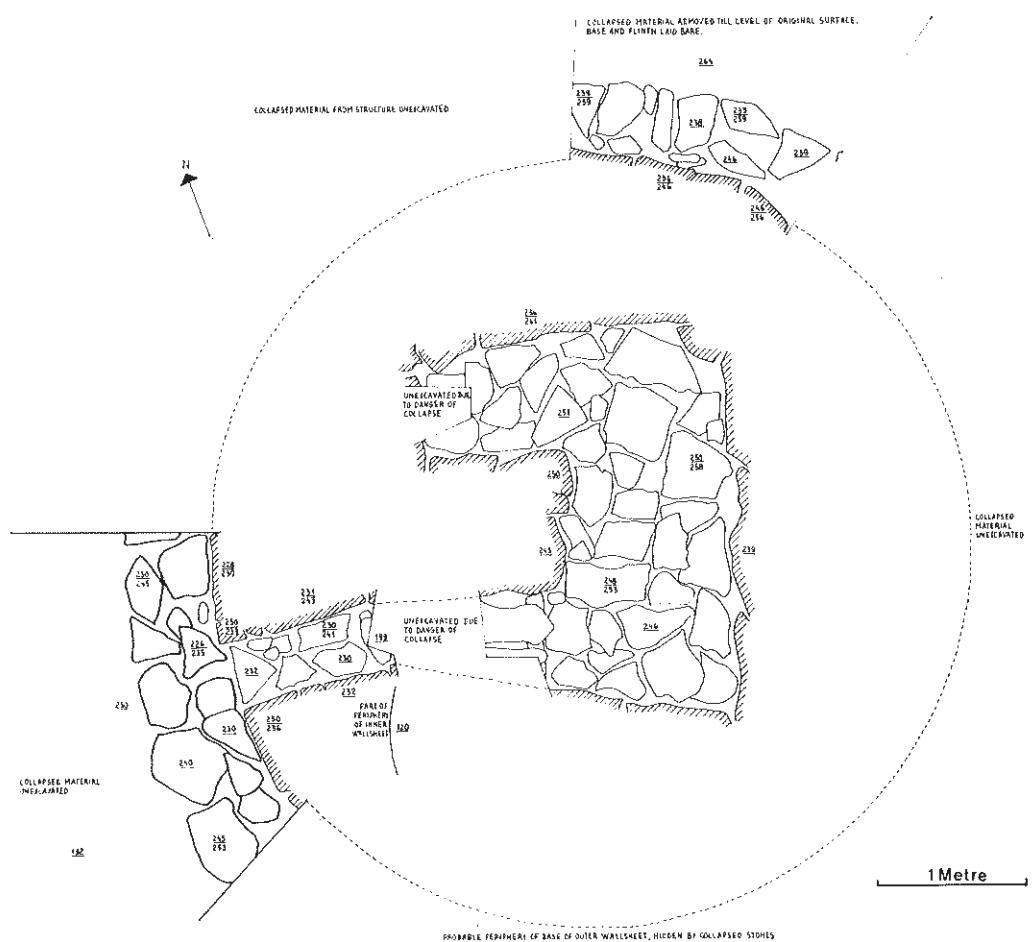


FIG. 23. Plan of Bat Beehive Grave 1138 with inner supporting wall.

A POSSIBLE LINK BETWEEN THE JEMDET NASR AND THE UMM AN-NAR GRAVES OF OMAN

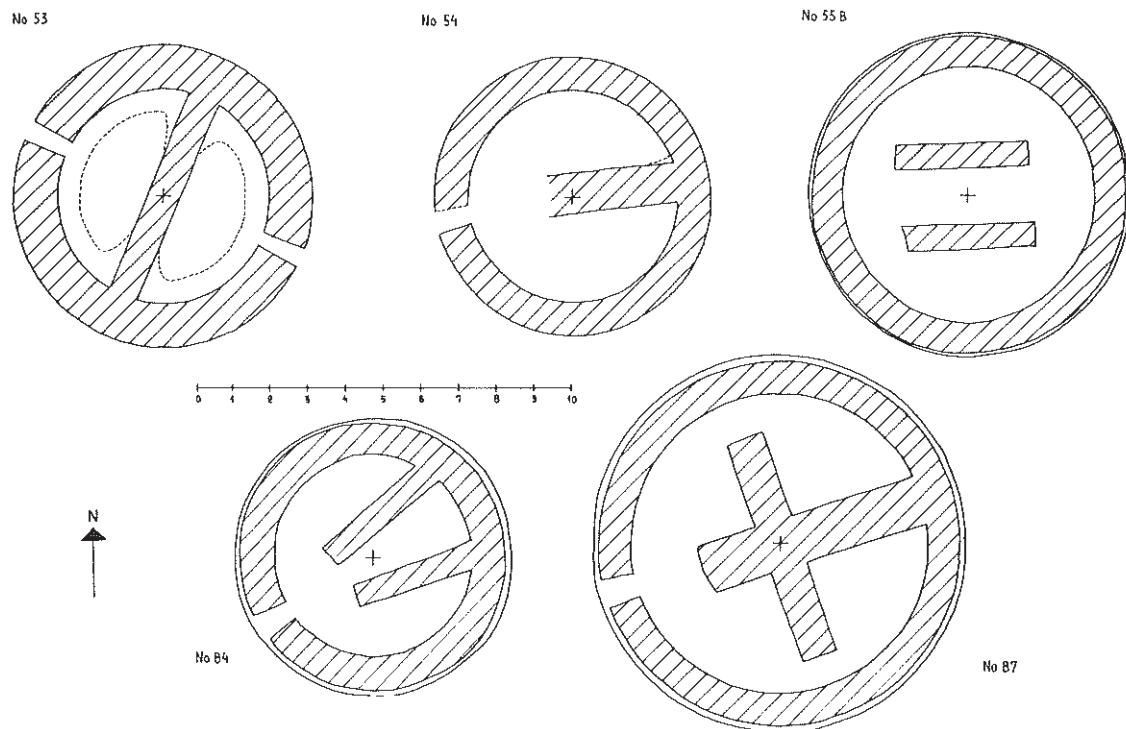


FIG. 24. *Plans of Umm an-Nar graves from the Bat necropolis. Note difference in wall-thickness from the Beehive graves.*

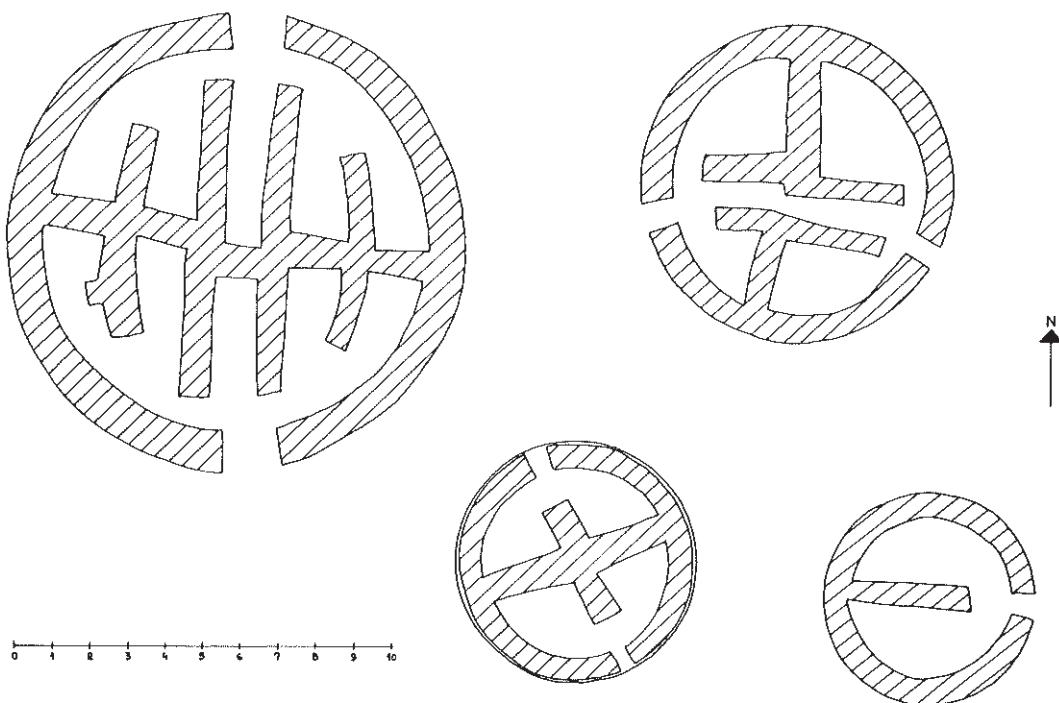


FIG. 25. *Plans of Umm an-Nar graves from Umm an-Nar island.*

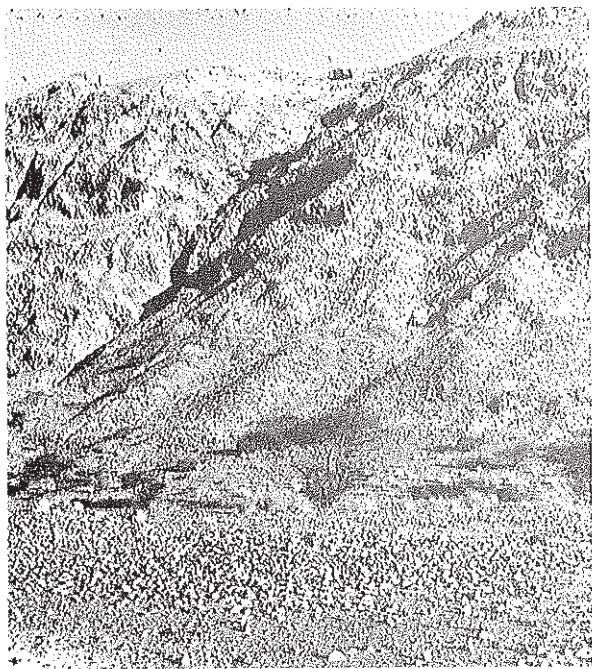


PLATE 1. *Remains of Jemdet Nasr grave group at the foot of the Faif Rayibah West of Ibri. Grave 1141 was found among the stones scattered in the foreground.*

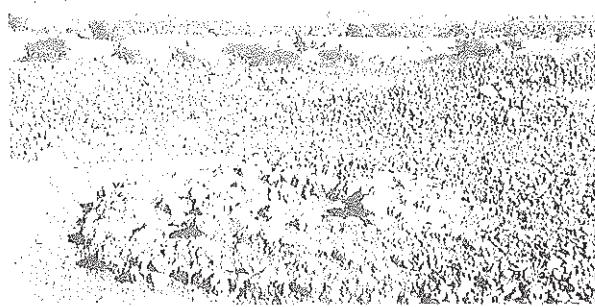


PLATE 2. *Remains of Grave 1141 West of Ibri.*

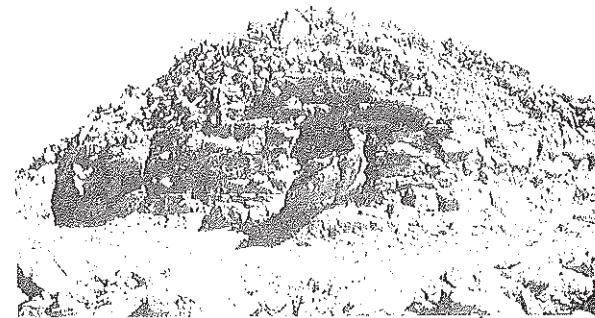


PLATE 3. *Haft Grave 1317 with door-stone turned over in front of entrance on South side.*



PLATE 4. *Haft Grave 1318 on sloping terrain at the foot of the Jebel Hafit, seen from the Northeast, with part of the outer wall collapsed.*

A POSSIBLE LINK BETWEEN THE JEMDET NASR AND THE UMM AN-NAR GRAVES OF OMAN



PLATE 5. *Hafit Grave 1319 from the South with part of outer wall collapsed and with blocked passage.*



PLATE 6. *Hafit Grave 1320 with excavated chamber, seen from the top. Note the oblong radially placed blocks.*



PLATE 7. *Hafit Grave 1321 with jar in place in chamber, under wall.*

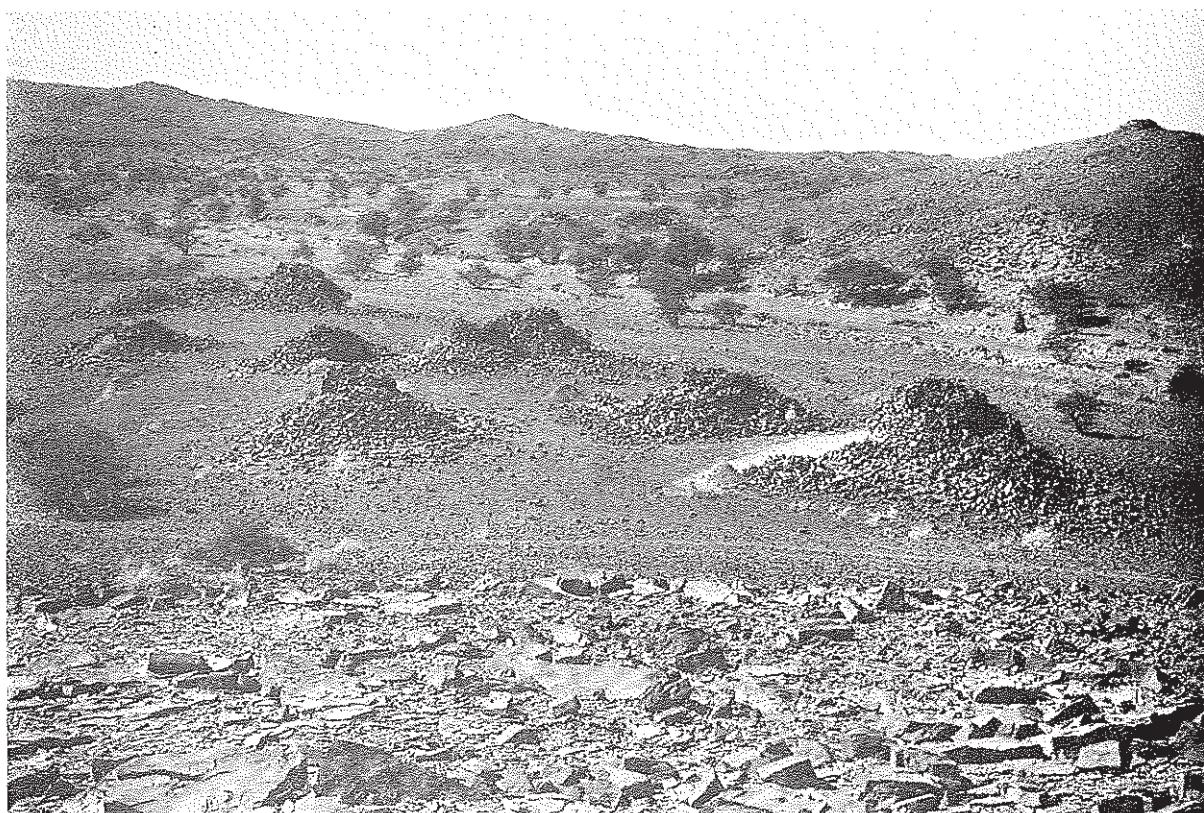


PLATE 8. *North part of the Bat necropolis with remains of Beehive graves from the early 3rd millennium B.C. On the right Grave 1137 and in foreground left 1138.*

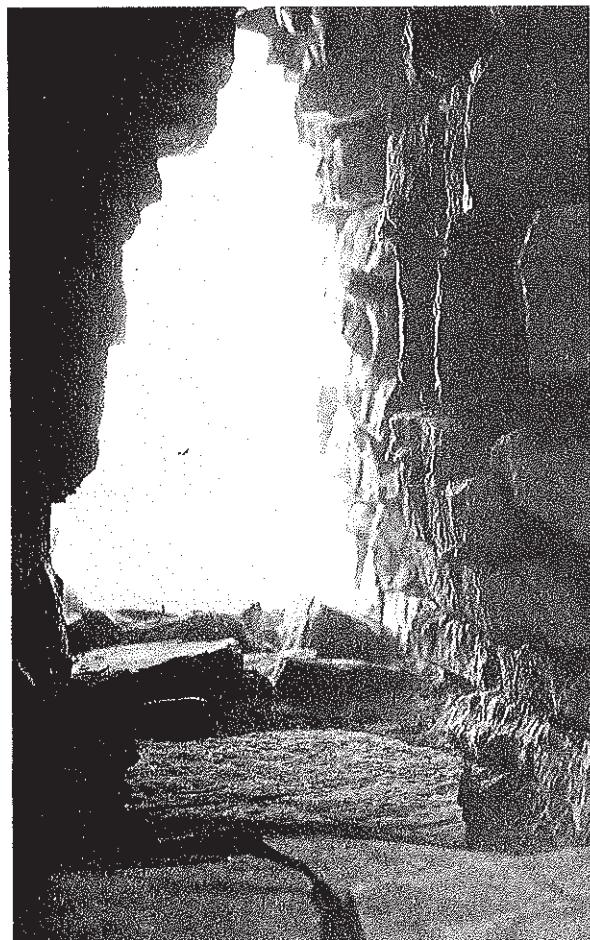


PLATE 10. Triangular entrance of Beehive Grave 1137 at Bat as seen from the Chamber.

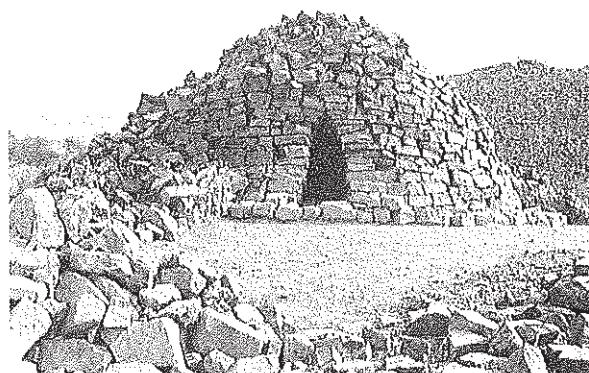


PLATE 9. Beehive Grave 1137 in the Bat necropolis, seen from South with entrance and passage cleared.

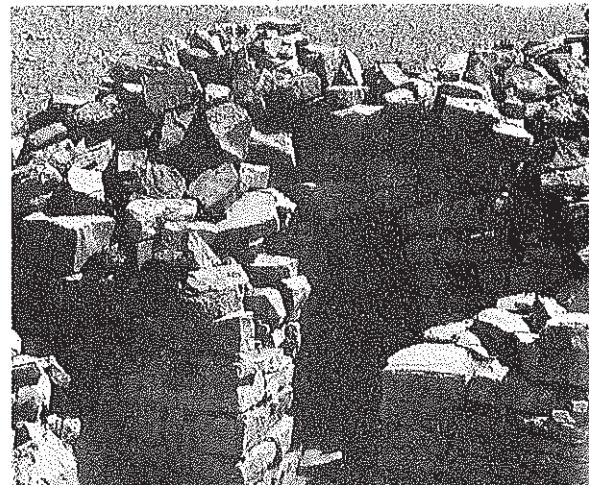


PLATE 11. Beehive Grave 1138 from Bat with entrance and double ring-wall, from West.

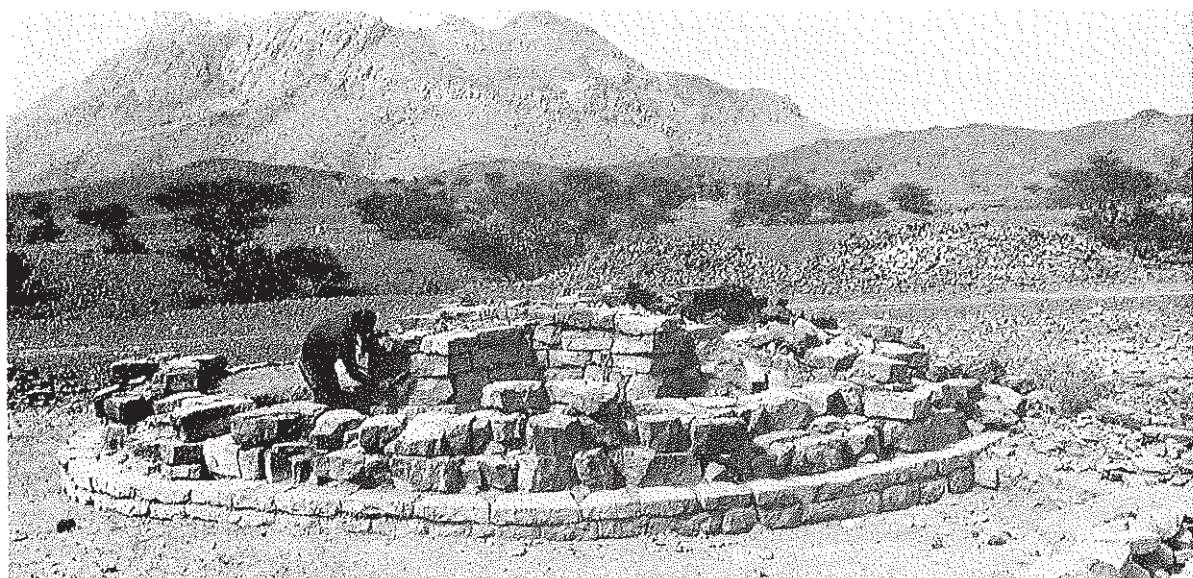


PLATE 12. Umm an-Nar grave from Southern part of the Bat necropolis, with plinth, ring-wall where facing stones are missing, and inner supporting walls, seen from Southeast. The entrance is left, opposite person.



PLATE 13. Jar of orange-brown ware from Grave 1141 near Ibri, with damaged surface and no trace of slip or paint.

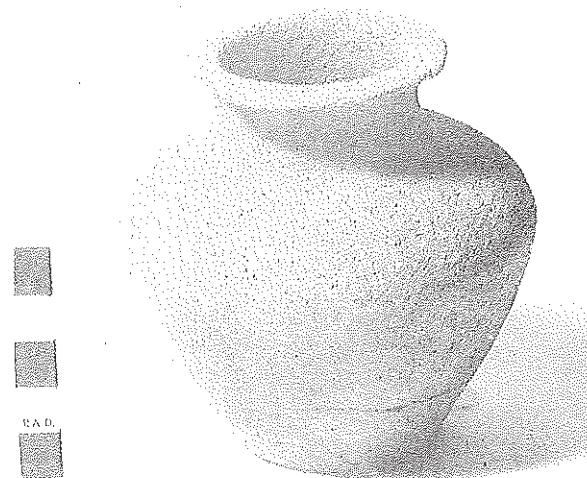


PLATE 14. Jar of red-brown ware from Hafit Grave 1320.

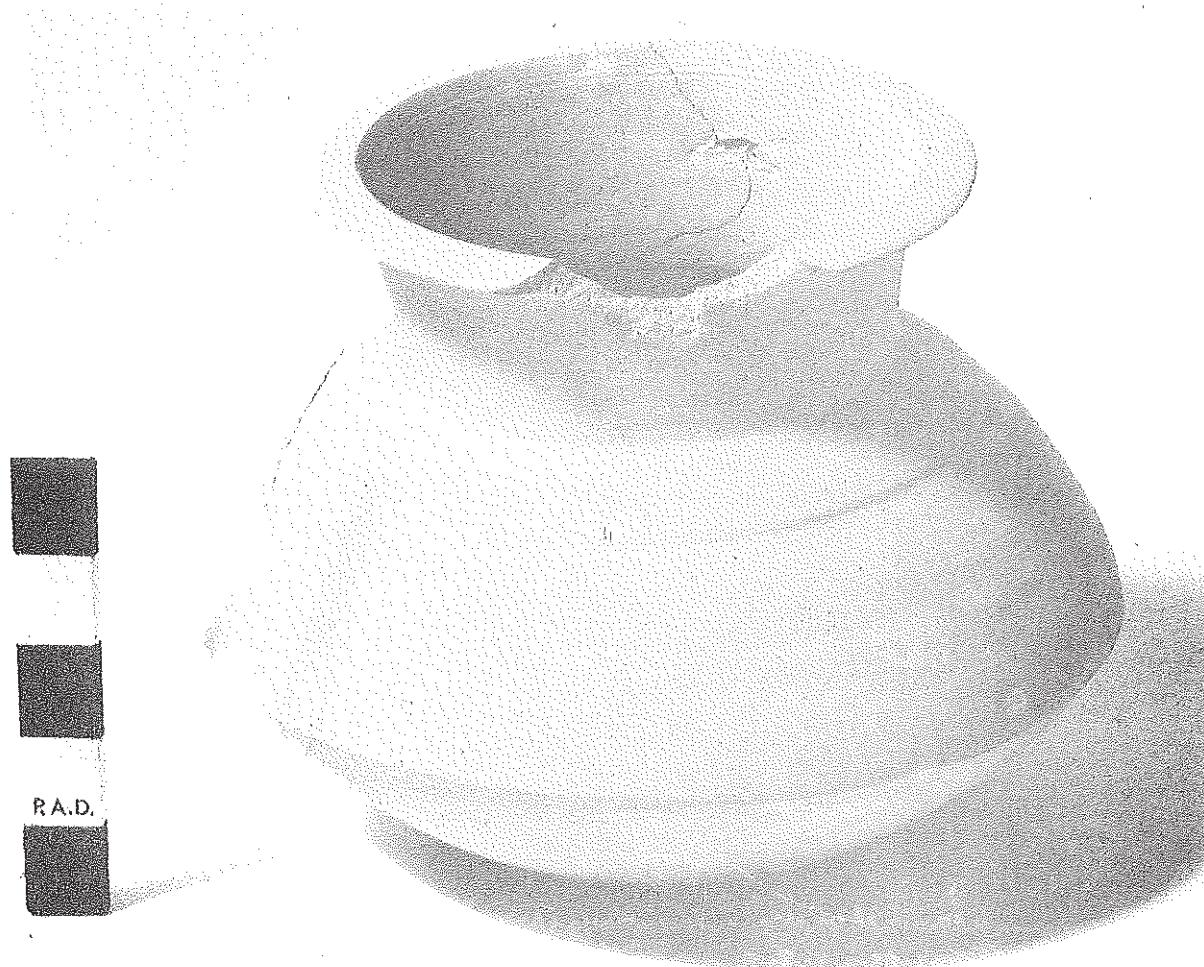


PLATE 15. Jar of fine greenish ware from Hafit Grave 1321.