Excavation of a barrow at Queenafjold, Twatt, Orkney

by Graham and Anna Ritchie
with a report on the cremated remains *by* C B Denston

EXCAVATION

The barrow stands in pasture about 90 m W of Queenafjold, Twatt, in the parish of Birsay and Harray and at a height of 33 m OD. It is listed in the *Inventory of Orkney and Shetland* as 'near Newbigging' (RCAMS 1946, 33, no. 93), but as the house is now known as Queenafjold this name has also been adopted for the barrow (NGR HY 265249). Before excavation the barrow appeared to be an irregular mound measuring 8·3 m by 10·1 m and standing to a maximum height of about 1·0 m above the surrounding field. Previous excavation was indicated by a trench dug into the S side of the barrow as well as by a hollow in the SE quadrant. The *Inventory* records that the site had been damaged on the top and the surface indications supported this, but the central cist was found to be undisturbed. Nothing further is known about the earlier excavation, but the base of a steatite urn, now in the Kirkwall Museum, is said to have been found during these operations (fig 2).

Excavation revealed two periods of activity; the first was indicated by a series of layers which underlay the barrow, one of which yielded a number of sherds, and the second period was represented by the cist burial and the barrow itself (fig 1). The natural subsoil was a compact yellow clay with a few stones, and its upper surface was marked by a series of long parallel grooves or channels filled by a fine grey silt-like deposit (Layer 11), which in some places overlay the surface of the natural. Such channels may have resulted from weathering under post- or peri-glacial conditions and the fine silt is thus a natural filling; a similar phenomenon has been recorded under the West Overton barrow G. 6b (Wiltshire; Smith and Simpson 1966, 122).

The earliest period of activity on the site was indicated by three layers which are visible on section (fig 1): a layer of dark grey silty material with charcoal flecks (Layer 9) overlay the natural subsoil and the silt filling of the channels, and in this layer a number of sherds were recovered (nos 44–52). The subsoil rose to the NW and NE, and Layer 9 appeared to be present only below the crest of this. Above the silty material of Layer 9 (and overlaying the natural at the SW end of the NE quadrant) there was a further clayey layer (red-brown with orange flecks). The pottery discovered in these layers belonged to hard, well-fired, close textured wares. By contrast, the sherds recovered from the earth and clay of the barrow itself were of mixed fabrics. It should be stressed, however, that the pottery found within the body of the barrow could have been scooped up from the surrounding ground among the material used for the construction of the barrow, and need not necessarily date the monument itself.

The barrow had been built to enclose a cist, aligned NE and SW, the base of which rested on

the ground level as it was at the time of building, with the slab which formed the floor of the cist lying on Layer 8. A handful of cremated bone with some few flecks of charcoal had been scattered underneath this slab, particularly where its centre was to be sited, and several small flat stones had also been inserted under it to make it level. The E and W end-slabs had been placed along the

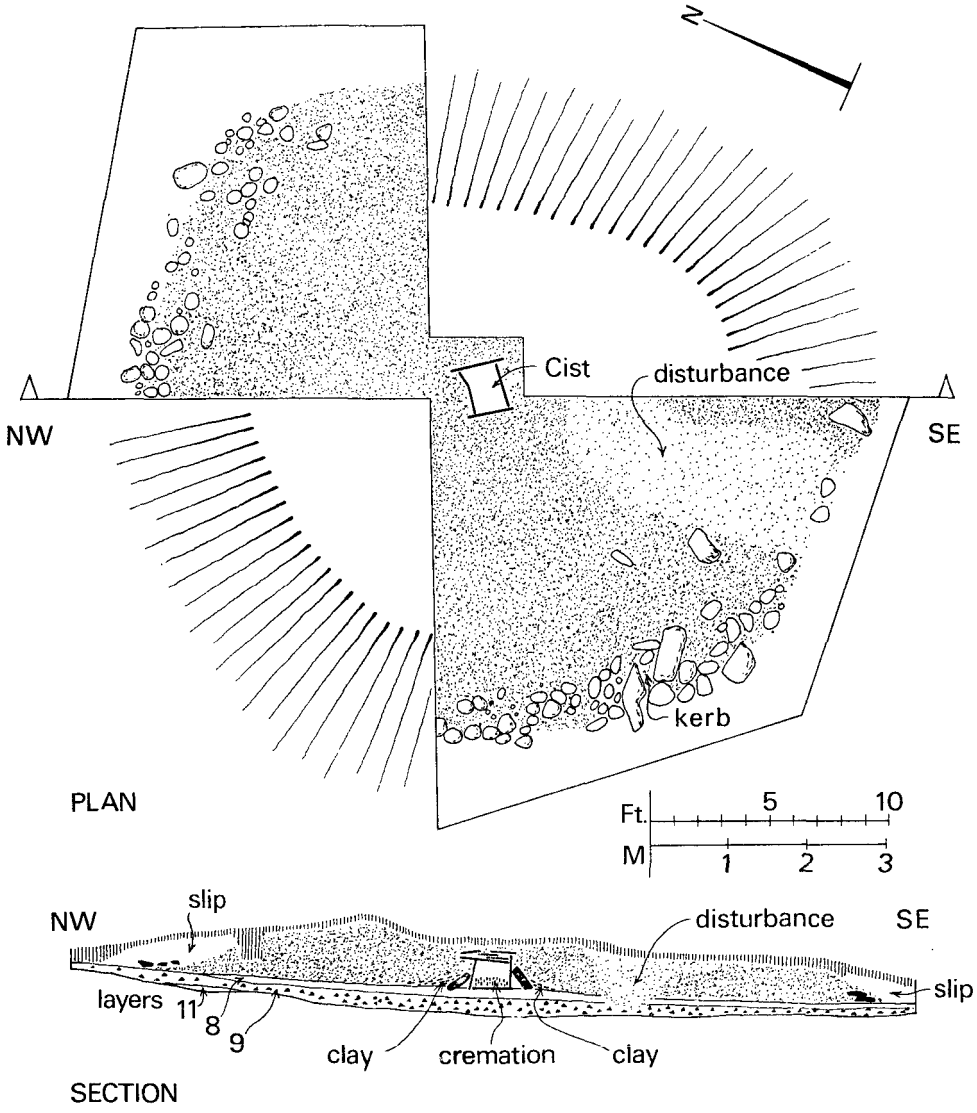

FIG 1 Queenafjold barrow, Twatt, Orkney

straight edges of the floor slab, their tips penetrating into the ground. The side slabs fitted in exactly to form a cist measuring 0·5 m by 0·6 m internally (pl 2). The sides were supported or weighted in position by boulders behind them and those behind the end slabs pressed these slabs against the inserted sides which had been carefully trimmed to size. The N slab, however, had been pushed forward and cracked by the weight of the boulder behind it and was no longer in its original

position. Small knobs of clay had been pressed into the corners of the cist, and in the SW corner two such knobs had been inserted behind the slabs. The three packing stones behind the S slab had a mixture of earth and knobs of clay between them. Behind each side slab the supporting stones had been sealed in position by layers of clay; a thin layer of grey clay ran over the bases of the stones, and on the N there were two further thin bands of clay. The cremated bones (Appendix 1) were deposited in the cist and a quantity of the charcoal of the pyre had been gathered up with the bones. Analysis of this charcoal shows that birch and hazel were among the types of wood used in the fire. A very badly burnt and crumbling pot sherd was found among the cremated remains, and a chipped stone pot-lid had been deposited in the cist presumably to accompany the burial. The pot-lid appeared to cover an area of cremated bone with no admixture of charcoal and earth, but the clean bone merged with the surrounding mixture of material.

The cremated remains in the cist were compared with those from the small deposit found underneath the floor slab and, as two fragments of long bone, one from each deposit, were found to join, it has been shown that both belonged to the same cremation. The examination of the bones has suggested tentatively that two individuals were represented, probably one female and one male. Also discovered in the cist were several cremated animal bones which have been identified as deer.

The cover slab of the cist, measuring 0·61 m by 0·86 m, rested on the NE and W side slabs and against the S side, which was slightly higher than the others. A second flagstone supplemented the cover on the S side and a small circle of clay of the same thickness as this second cover helped to keep level a layer of smaller slabs which formed a complete double cover to the cist (pl 2, b). Although the top cover-slabs were just 0·15 m under the present turf-line, in the apparently disturbed central portion of the barrow, the careful covering and solid construction had preserved the cist intact and no earth had filtered into it.

The barrow was composed of dark brown soil with orange and yellow flecks, some fragments of limestone and patches of clay; around the perimeter of the barrow there seemed to be a greater percentage of harder packed clayey material bordered by an informal kerb of medium-size flat stones. Sherds of several vessels of varying fabrics were found in the material making up the body of the barrow, particularly in the NE quadrant (nos 1–43).

In no case are there sufficient fragments to reconstruct the profile of a vessel, nor are any of the sherds of immediately recognisable fabrics. Thus neither the pottery from the pre-barrow layers nor that from the mound itself provide any useful indication of the date of the site. The steatite vessel, which was found in the course of the earlier excavation and which presumably held a secondary interment, was probably inserted into the S or SE part of the barrow; but, as this type of urn was used from the second millennium BC to Viking times, it does nothing to narrow the chronology of the mound. Stone pot-lids have almost as wide a range of occurrence in Orkney from Skara Brae and Rinyo in the late third or second millennia BC to a number of broch sites such as Midhowe in the first millennium AD.

DISCUSSION

The distinctive method of cist construction exemplified at Queenafjold provides the only potential source of dating evidence for the site. Use of clay to seal the cover of the cist can be paralleled most closely in Orkney at the Knowes of Trotty, about 11 km from Queenafjold (Petrie 1860, 195; RCAMS 1946, 29–31, no. 73). Barrow no. 1 at the Knowes of Trotty contained a cist flanked by two upright stones set at right angles to the side slabs, and the flagstone cover

of the cist appeared to have been sealed with clay. A cremation burial was found in the cist, and in one corner of it, lying on a flat stone, were four gold discs and a number of amber beads, pendants and space-plate fragments. Analogy with this site on the basis of construction method might therefore suggest a date in the mid to later second millennium BC for the Queenafjold barrow.

There are several other examples of clay-luted cists in Orkney, including Backakelday in Holm (RCAMS 1946, 108, no. 377) and West Puldrite in Evie and Rendall (Corrie 1929), but none is helpful for dating purposes. The largest barrow among the Manzie's Knowes group at Corquoy on Rousay contained a cist built, like that at Queenafjold, on the old ground level and with its corners 'cemented with tempered red clay'. Within the cist, a small steatite pot filled with clay and ashes was found in the centre of a deposit of 'clay, ashes and fragments of bone' (McCrie 1881).

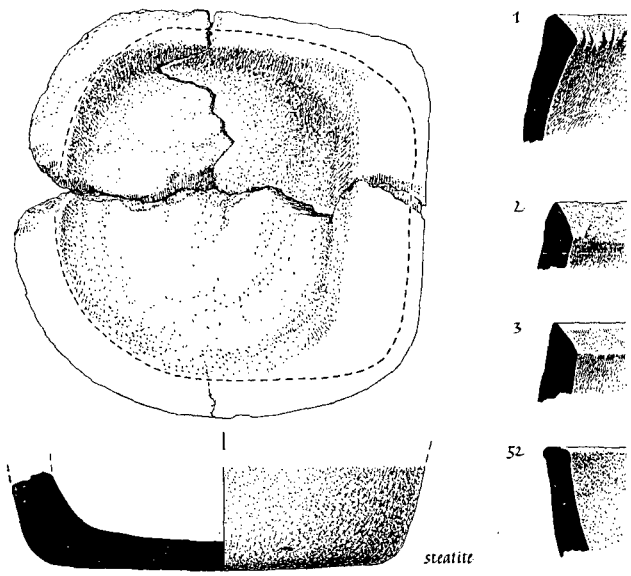

FIG 2 Queenafjold barrow, pottery and steatite (scale 1 : 3)

The second distinctive feature of the Queenafjold cist was the marked overlap of the end slabs beyond the two side-slabs. This technique is most closely paralleled by a number of cists excavated in the barrows at Quandale on Rousay (Grant 1937), but it is a method particularly suited to the easily worked local flagstone and seems to be a relatively common feature of cists in Orkney. The notched cist from Arion, Stromness, shows an elaboration of the technique with tongues on the end slabs which fit into notches cut on the top of the side slabs (Kirkwall Museum).

At Fintona (Co. Tyrone) excavation of a cist revealed that cremated bone was also present below the sides and base slabs (Jope and Jope 1952). In the past, however, the majority of cist excavations have merely cleared out the contents and have not examined the pit in which such cists are frequently constructed; the past incidence of deposits of bone beneath the floor slab or within the cist pit can thus never be evaluated. Equally, the presence of animal bones amongst cremation deposits has been increasingly noted as a result of more careful analysis; pig bones have been noted among the remains from Dalineun, Lorn (Denston 1972).

The second millennium BC in Orkney is remarkable for the scarcity of finds which can be used in chronological comparison with better documented areas of Scotland. This is an unexpected reversal of the situations of both the third millennium (with a large number of chambered cairns) and the later first millennium BC and early first millennium AD (with considerable numbers of brochs). Many barrows and cists have been excavated with varying degrees of scientific method in Orkney, yet there are few of the beakers, food vessels or recognisable types of cinerary urns on which burial chronology is based in mainland Scotland. A similar situation exists in the Hebridean islands, and it has been suggested that there was 'a continuous tradition of short cist burial from the late stages of the Neolithic to a period chronologically equivalent with the first stages of the Iron Age on the mainland' (Megaw and Simpson 1961, 73). In view of the few datable small finds from short cists in Orkney, it is likely that only a series of radiocarbon determinations from charcoal accompanying cremation deposits will provide a chronological framework for this period.

SMALL FINDS

Pottery

1–3. Three rim sherds of a fairly hard grey-buff ware, medium to large grits and shell, finger-smoothed surface, internally bevelled rims; 9–11 mm thick; barrow material (fig 2).

4–5. Two body sherds of a buff ware, now burnt, hard, well-fired ware with smallish grits; 9 mm thick; barrow material.

7–10. Body sherds of a compact sandy-buff ware with little grit, hard and well-fired; 7–8 mm thick; barrow material.

6, 11–38. The majority of the sherds belong to thick orange-buff wares (about 19 mm thick) with some large grits and some flecks of mica; some are crumbly due to reburning, others are of more compact well-fired textures, some have a blackened inner face. None of the sherds is decorated or is distinctive in any way; barrow material.

39–43. Two simple rounded rim sherds and a number of body sherds of a black ware, very badly burnt and crumbling, much medium-sized grit; 8–9 mm thick; barrow material.

44–9. Six wall sherds of a grey-buff fairly hard ware with medium sized grits and some mica, blackened outer face, possibly two vessels, one with outer slip; 10 mm thick; layer 9.

50–1. Two wall sherds of a bowl of pink-buff ware with small to medium grits, including fragments of shell, and a burnished black outer face; 8–10 mm thick; layer 9.

52. Rim sherd of buff ware with small grits and some mica, blackened outer face; rounded rim thickened slightly on outer edge; 12 mm thick; layer 9 (fig 2).

53. Tiny body sherd from the cremation deposit in the cist, fire-damaged and crumbly, medium sized grits; 20 by 29 mm and 10 mm thick.

Stone

54. Pot-lid; this circular disc has been shaped by chipping a piece of flagstone to size; found with the cremation deposit in the cist; 166 mm in diam., approx. 18 mm thick (pl 2, d).

55. Three fragments making up the base of a steatite urn found during earlier work on the site are now in the Kirkwall Museum, registration no. 464. The base is squarish with rounded corners 130 mm by 140 mm and about 13 mm in thickness; the wall thickness varies between 18 mm and 23 mm (fig 2).

APPENDIX 1

The cremated remains from Queenafjold, Twatt, Orkney

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Preparation of material The examination of the material follows the technique used on previous occasions by the writer (1962), and is based on procedures in cremation reports by Lisowski and by Gejvall (references in Denston 1965, 57; Lisowski 1962, 94). The usual procedure is for the cremated material first to be washed in a sieve of 2 mm mesh, in order to remove the soil and to float off any other light material. Next, the material is allowed to dry and fragments of the various bones and teeth are sorted into groups. The remaining material is then sieved again to get rid of dust, and picked free of small stones and other foreign material. The residue of small bone fragments are classified after a further inspection as unidentifiable. The various groups of identifiable material are then examined in detail in order to establish as far as possible the number of individuals cremated, their sex and age.

Estimation of number, sex and age The number of individuals identified from material of a cremation is usually established by the presence, or lack of, certain definite duplicated skeletal parts, or a great dissimilarity in the thickness of certain bones, or the fact that epiphyseal union had taken place in some bones while in other similar bones epiphyseal union had not taken place at all. Assessment of the sex of an individual from cremated remains is a very precarious procedure unless there are preserved definite diagnostic portions of bones from which the sex can be ascertained. The possible sex can be diagnosed from the robustness of certain bones, but the conclusion is only a tentative one. Measuring the thickness of cranial and certain long bone shaft fragments can also be a help in determining the sex of an individual. A possible age at death can be suggested by an examination of the state of endocranial and ectocranial suture closure, by noting that epiphyseal union was completed, or had not started, by an examination of the vertebrae, state of the pubic symphysis, and the eruption and attrition of the teeth. All these features, however, may not have survived the combustion.

In the case of this cremation, the bone fragments were a mixture of human and animal; the majority, however, were human. The presence of fragments of animal bone presented a problem in sorting animal from human. The majority of the fragments were of a light brown colour and were human, but two large fragments of animal tibiae were of a dark brown to black colour, and these two fragments along with about forty other fragments of long bone of a similar colour were sorted from the rest of the fragments identified as of long bone. On examining these fragments in detail, one of the larger was definitely of a human femur shaft, so to complicate matters these fragments were human and animal. It was possible to identify some of the fragments as belonging to a human femur, and others as belonging to animal tibiae, but it was impossible to identify visually the smaller fragments as being of either human or animal origin. Where the skull fragments were concerned the majority were human, but some were also animal. The predominant colour of the skull fragments was light brown, but the largest fragment was black, and other smaller fragments were of a light to dark grey colour. No definite duplicate portions of human bones could be recognised, suggesting the possibility the remains could have been of one individual. It was also possible though that the remains represented two individuals, as, though the skull fragments were mainly of a uniform thickness, the large black fragment was slightly thicker and displayed part of a suture (possibly the sagittal suture) completely fused, and though other fragments had parts of sutures none displayed so advanced union. Supporting the possibility that the cranial fragments were of two individuals were three fragments of frontal bone displaying the internal crest and sulcus. Two of the fragments were of a grey to dark brown colour and could be glued together perfectly while the third was of a light brown colour and the relevant edge could not be made to articulate with the other two fragments. The third piece of frontal bone also had a metopic suture, and it seemed quite possible, but not a definite fact, that the other two pieces lacked a metopic suture. It seems, therefore, that the remains were more likely to have been of two individuals than of one. Taking into account the appearance of the sutures of the skull fragments, and the fact that the distal extremity of an ulna was intact displaying that epiphyseal union was complete, the individual or individuals the fragment represented would seem to have been of a mature adult age at time of death. Some doubt prevailed concerning the sex of the individual represented by some of the fragments, this giving weight to the suggestion that the remains were possibly of two individuals. Features of some of the fragments suggested female while others male; it was most probable that one individual was a female and the other male.

Two lots of cremated material were involved, the larger amount from the cist itself, and the smaller

amount from under the floor slab of the cist. After careful sorting and matching of the two lots of remains, a piece of long bone from each deposit was found to join together perfectly, this being definite evidence that the two lots were of the same cremation.

General description of the material The weight of the various lots of bone were as follows: within cist, 1297·7 gm; under floor, 68·1 gm; animal bone, 90·6 gm; total wt, 1456·4 gm. The human fragments of bone were irregular and varied from 2 mm to 66 mm L. Of the larger fragments some were twisted and distorted and displayed elliptical cracks, and some skull fragments had the inner table of bone split from the outer one. A few fragments could be glued together but actual reconstructions were impossible. Colour varied from light brown, light grey to dark grey, and dark brown to black; predominant colour light brown. The animal bone fragments ranged from 17 mm to 74 mm L, and the colour of these was of a dark brown to black.

Cremated bone within cist

Skull: 135 possible fragments could not be identified as coming from any specific areas of the cranium, but a further forty displayed parts of sutures or had serrated sutural edges, so came from areas of either coronal, sagittal, or lambdoid sutures. Six fragments were of frontal bone, three displaying the internal crest and sulcus, two were supercillary ridges, and the other was the superior margin of a left orbit. Four fragments were of occipital bone, all displaying the internal protuberance. Twelve other fragments were possibly of parietal bone, displaying parts of either sagittal or lambdoid sutures. Two fragments of mastoid processes were present, along with two others from the area of the mastoids. Other fragments were a petrous portion of a temporal bone, two pieces of zygomatic bones, one condyle of a mandible, and also a coronoid process of a mandible. Skull fragments 10 mm to 39 mm L. *Odontological remains*: Sixteen fragments, ten of which were roots, one of which was of a mandibular molar. *Femur*: One definite fragment from the area of the shaft containing the nutrient feramen. Eleven other possible fragments of the shaft, 19 mm to 56 mm L. *Tibia*: Ten possible fragments, all of the shaft measuring 22 mm to 43 mm L. *Fibula, radius, ulna*: As the shafts of these bones, especially when having been cremated and in fragments, look very similar, they have been classified together. There were twelve possible fragments from 25 mm to 47 mm L. One other piece was a distal extremity of an ulna. *Ribs*: Thirty-seven possible fragments. *Vertebrae*: Twenty-three fragments, mostly superior or inferior articular facets. One piece was the posterior spine of a lumbar vertebra, and another was a portion of an axis. *Scaphoid*: One tubercle of a scaphoid bone of the hand. *Metacarpal and metatarsal bones*: Sixteen fragments were proximal and distal extremities, and seventeen were pieces of the shaft. *Phalanges*: Three distal phalanges of the foot; two distal phalanges of the hand. *Miscellaneous long bone*: Numerous fragments from 10 mm to 66 mm L. *Miscellaneous cancellous bone*: numerous fragments from 4 mm to 33 mm L. These could have come from any bone where cancellous bone occurred. *Miscellaneous bone (other than cancellous)*: Numerous fragments from 2 mm to 46 mm L. *Non-metrical features*: Part of a metopic suture was observed on one of the fragments of frontal bone, and a number of small wormian bones were present where parts of sutures occurred.

Cremated bone below floor slab

Skull: One fragment was a petrous portion of a temporal bone and another was from the glenoid fossa area. Nineteen fragments could not be identified as coming from any specific areas of the cranium, and three other pieces displayed parts of sutures or serrated sutural edges and could have come from areas of either coronal, sagittal, or lambdoid sutures. 11 mm to 42 mm L; wt 21·7 gm. *Radius*: Possible fragment of the proximal extremity; wt 0·3 gm. *Metacarpal and metatarsal bones*: Five possible fragments; wt 1·1 gm. *Miscellaneous long bone*: A few fragments; 13 mm to 35 mm L; wt 15·0 gm. *Miscellaneous cancellous bone*: A few fragments; 6 mm to 23 mm L; wt 7·2 gm. *Miscellaneous bone (other than cancellous)*: The majority of fragments came under this category; 2 mm to 30 mm L; wt 22·8 gm. *Non-metrical features*: A few small wormian bones were observed along part of a suture of a skull fragment, possibly the lambdoid suture.

Animal remains, from within cist Two definite fragments of tibia, one from a right tibia, and the other from a left tibia, both portions being of the proximal third of the shaft. The larger of the two fragments measured 74 mm L, and the smaller 56 mm L. There were also twenty-five possible fragments of shaft of long bone. The two larger fragments were identified as being possibly of deer. Five other fragments were possibly of an animal skull; 21 mm to 35 mm L. One piece displayed two sutures running off at right angles to each other, and the pattern of the sutures could not be matched with any of a human skull, and the animal skull, the sutures of which matched up the nearest, was that of deer.

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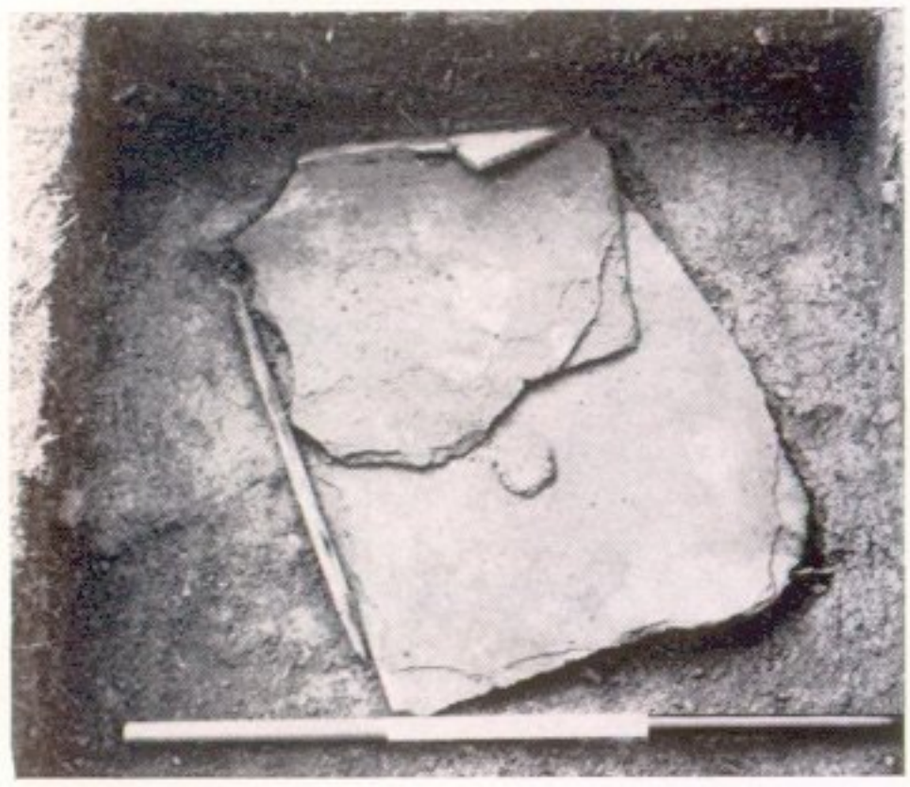
a Upper cover slabs (scale in ft)



b Lower cover slabs (scale in ft)

c Interior of cist (scale in ft)

d Pot-lid (scale 1:4)