

Short cists recently excavated at Lower Ellibister and other locations in Orkney

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Records of burials in Orkney between the Neolithic and the early Christian period are both very numerous and very confusing. Certainly part of this confusion is due to the way in which the record we have has come down to us; it is, by and large, a conglomeration of unsystematically collected information derived from antiquarian or amateur investigation. There is nothing unusual about this, but odd burials have not generally received the attention of visiting archaeologists; attention which has thrown some light on many other classes of monument. The Orkney situation, however, is not totally responsible for the confusion of the record; the archaeological evidence does not lend itself to a neat classification, individual boxes within which there is a one to one relationship with specific periods of time. Apart from the partial and unreliable nature of the information available there are three factors involved:

- (1) Practically none of the burials have any dateable artefacts with them. This is partly because grave goods are generally absent and partly because the artefacts found in Orkney mostly cannot be assigned to a single period.
- (2) The variables of each aspect of burials are simple, ie burials of one period do not have any extraordinary distinctiveness about them. Further the variables occur in all sorts of varieties of combinations.
- (3) At least some of the combinations of variables were in use contemporaneously. On the other hand it is not possible to say that one type of burial was used in one period only or that it was not used in any particular period.

One approach to solving this situation would be to take each variable relating to burial, subdivide it according to the variations which certainly occur, to discover which combinations have occurred and to relate them to each other and to time. Such is the quality of the information we have that while it is possible to point out the variability of the data in this way, most burials known would only be partially classifiable. For example, when a burial is said to have been uncovered by ploughing we often do not know whether it had been in a mound; if one is stated to be in a mound we do not know whether it was intrusive and, if bones are noted as being found we do not know whether there was one or more individuals and how exactly they were deposited.

A second approach to the subject is, that when reliable information presents itself, to define a type of burial which is a particular combination of the above variables. This type may then be discussed in the light of other, partial information but stands for itself. This is not to say that it was the sole type of burial used in one period or that it only belongs to one period.

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It is an interim step towards a complete solution; a situation which may be approached as more information becomes available. In itself the definition and publication of a type adds to the body of reliable knowledge available and points to the sort of information that ought to be sought.

LOWER ELLIBISTER TYPE CISTS

The cists published here for the first time (appendix 1; fig 1) are eleven in number and were excavated between 1968 and 1978, individually, by the late Ernest W Marwick and Evan MacGillivray, the folklorist and the, now retired, County Librarian; Bryce Wilson, the Museums Officer; Andrew Appleby; and the writer.

Of these, eight are the same and constitute examples of a type. The other three differ in that no bones were present and, although they are alike in other respects, we cannot be certain that the nature of the burial was the same; although included in appendix 1 they are omitted from the following discussion of the characteristics of the type.

Situation of the burial

All the cists had been placed in holes dug through the ground surface of the period and into the natural boulder clay below. There was no evidence for there ever having been a mound over them. In the instances cited the ground level had not changed appreciably since and most were discovered when a plough took up their cover-stones.

The holes made to receive the cists were roughly excavated and oversize so that the cist could be placed in and then the gap between it and the side of the hollow could be backfilled with the earth taken out.

All the cists were short cists.

Dimensions

On average they were, internally, 0.9 m long, 0.5 m wide and 0.55 m deep, having a volume of c 0.25 cu m. Their dimensions were not by any means uniform although generally they were longer in one direction than the other and the depth was either similar to the shortest length or greater than it. There is a rough correlation between length, width, and depth; that is they are approximately the same shape. The range of size may be seen from the accompanying table, table 1; the smallest noted is Hindrafield with a length of 0.74 m, width of 0.45 m and depth of 0.4 m, and the largest, Werne 1, with a length of 1.18 m, width of 0.75 m and depth of 0.8 m.

TABLE 1

Construction, dimensions and orientation of the Lower Ellibister type cists published here for the first time

<i>Cat no</i>	<i>Site name</i>	<i>L</i> (m)	<i>W</i> (m)	<i>Depth</i> (m)	<i>Vol.</i> (cu m)	<i>Shape</i>	<i>Cover</i> (m × m)	<i>Bottom</i>	<i>Orientation</i>
1	Garsetter, Birsay	1.00	0.48	0.58	0.28	—	Cover	—	WNW-ESE
3	Hindrafield, Harray	0.74	0.45	0.40	0.13	B	0.96 × 0.92	Clay	NNE-SSW
4	Werne 1, Harray	1.18	0.75	0.80	0.71	A/B	(2.00) × 1.20	Flag	ENE-WSW
	Werne 2, Harray	1.00	0.59	0.64	0.38	A	—	Flag	E-W
6	Lower Ellibister, Rendall	0.80	0.50	0.55	0.22	A	1.44 × 0.72	Flag	NE-SW
7	Sandyha', Rendall	(0.81)	(0.40)	(0.40)	(0.13)	A	Cover	Clay	(E-W)
8	South Eftit, Rendall	(0.86)	(0.36)	0.50	(0.15)	A	1.48 × 0.40	Flag	ENE-WSW
9	Cleat, St Ola	(0.80)	(0.40)	0.50	(0.16)	A/B	Cover	—	N-S

Items in brackets approximate only

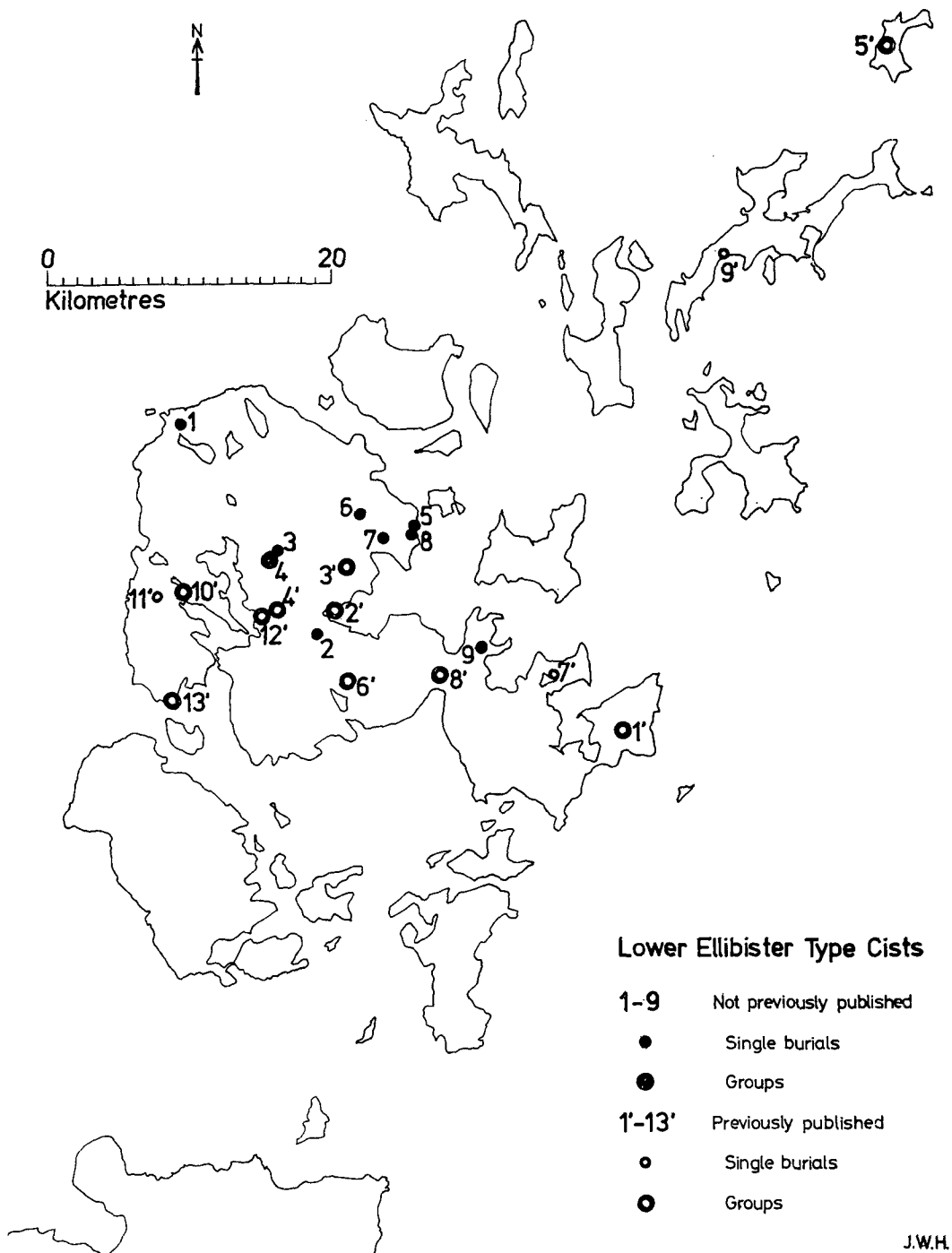


FIG 1 Distribution of Lower Ellibister type cists in Orkney

J.W.H.

Orientation

The orientations known for the cists are only approximate but they serve to show a great variability. Only examples of cists oriented NNW-SSE and NW-SE are lacking and this probably is due to the small size of the sample in hand.

Structure

The sides of all the cists were upright flagstones but there were two methods of putting these together. In the case of Lower Ellibister, Werne 2, Sandyha' and S Ettit the long sides projected beyond the ends, which were inserted between them (shape A, table 1; see fig 3). In the case of Hindrafield the slabs of the sides seem in a photograph to meet at their edge to form the corner (shape B, table 1; see fig 2) and certainly the cists from Cleat and Werne 1 are of mixed design.

In four instances the cists had flagstone bottoms but in two they were definitely unlined; there is no information for Garsetter and Cleat.

Although cover-stones were found on seven of the eight cists (that of Werne 2 presumably being removed in its first excavation) dimensions are only known of four of them. These were all single stones with dimensions greater than those of the cist they were to cover. Their size seems to be related to that of the cist and, not unexpectedly, the largest (2 m × 1.2 m) covered Werne 1 and the smallest (0.96 m × 0.92 m) Hindrafield. In all instances it was apparent that the fit of the cover-stone had been such as to prevent earth from entering the cist after it had been sealed.

Some of the cists deviated in their construction from the simple box-like form given above. In all instances this had to do with the availability of suitable stones and the modification of ones that were used to make them into what was regarded as a satisfactory cist. This is a problem that would have been common at all periods in which cists were built; it is particularly exemplified by those at Torrieday and Ha' which, because of the absence of bones, are only included in the appendix (appendix 1; fig 2). In the case of Werne 1 the flag used for the S side had an irregularity in its shape in that the bottom 0.45 m projected 20 mm out from the rest of its surface; the end of the E stone had been dressed back so as to fit this neatly. The S stone of Werne 2 had a semi-circular hole 0.12 m in minimum diameter and 0.2 m in maximum diameter near the top of its E end; this suggests re-use.

Only in some instances was all or part of the hole made to receive the cist emptied out by the excavators. At Lower Ellibister, Werne 1 and Werne 2, where this was done, large stones were found against the sides of the cist which would have kept them in place while the hole around was being backfilled.

Appleby noted in the case of Werne 1 that large stones lay on the edges of the remains of the cover-stone and he interpreted these as some sort of cantilever support.

Condition of body(ies) when deposited

In all the instances cited the cists had contained cremated bones and, in some cases, peat ash was noted. For the cists at Cleat, Sandyha' and S Ettit the bones have not been traced and in the case of the first one the position in the grave is unknown. The contents of both Werne 1 and Werne 2 had been disturbed prior to Appleby's excavation in 1978.

Location of bones in cist

Apart from the Sandyha' and Werne cists it is known that the cremated bone was in a discrete heap on the bottom. In the Lower Ellibister cist this was central but this was by no means the

norm. In Hindrafield the bone was noted to be in the NE corner; at Garsetter in the SE; and at Sandyha' it was more or less central but to one side.

Amount of bone deposited

In five cases it was possible to weigh the bone preserved. For two of these, Werne 1 and 2, which had about 2.2 kg and 108 gm respectively, the weights may represent a minimum figure since the cists had been disturbed. The weights from Lower Ellibister (650 gm), Hindrafield (2.2 kg) and Garsetter (1.23 kg) are real and indicate that there was a variability in the efficiency of the collection of bone. Partial collection has been noted before (Hedges, M 1977) as has the difficulty, shown experimentally, of separating the calcined bones from the ash of the funeral pyre.

Age, sex and number

Bones from five cists, Werne 1, Werne 2, Lower Ellibister, Hindrafield, and Garsetter, were submitted to Dr D Luke for examination (appendix 3). In each instance there was no noticeable animal bone and only the bones of one human could be shown to be present. It was not possible to sex the bones but the burial in the Lower Ellibister cist was of an individual about 18 years old; Werne 1, one between 30 and 40; Werne 2, an adult; Hindrafield, one about 40; and Garsetter one over 30.

This is of course a very small sample which is not statistically significant. The age of the population is however noticeably old when compared to known prehistoric populations such as those in the Neolithic tombs of Quanterness and Isbister (Renfrew 1979; Hedges, J W forthcoming) and the middle/late Bronze Age cemetery of Quoyscottie (Hedges, M 1977).

Cramp

Apart from Cleat, Sandyha', and S Ettit, the bones from which are lost, all of the samples were contaminated with the vitreous vesicular material known as cramp. This occurred as separate nodules or adhered to the bones (including to their inner broken surfaces) and there can be no doubt that it was produced in the cremation pyre. Cramp has recently been subjected to various inconclusive scientific analyses (Fleet 1976); there is nothing among these inconsistent with the idea that it is made of earth with a high quartz content which has become vitrified.

Grave goods

Grave goods were definitely lacking from all the burials. Werne 1 had with it a small portion of replaced textile and some small sherds but these are likely to have come from the remains of the funeral pyre rather than to be deliberate inclusions.

Higher units

Apart from the Werne cists all the examples were found separately in ploughing. There was no systematic search for other cists in the immediate neighbourhood although the ploughing up of flagstones at Lower Ellibister indicates that there, at least, there may have been others. At Werne the whole area was stripped and here three cists were located in close proximity (although one did not contain bones). This is certainly suggestive that this type of burial may occur in cemeteries.

Date

Bones from Lower Ellibister, Garsetter and Hindrafield were submitted for C14 dating but there was insufficient collagen preserved to make this practicable. There is therefore no dating evidence.

Parallels within Orkney

Many of the burials found in Orkney, for which some record survives (RCAMS 1946; OS), have features in common with the Lower Ellibister type cists. Most, however, also have features in common with burials which are patently not of this type. When work is undertaken on a larger scale incorporating fresh information these may fall into some pattern but, within the limitations of this article, it would be misleading to compare the cists published here with any that are not strictly the same in all of the aspects used to define the type. This narrows the field to thirteen sites (appendix 2; fig 5).

These parallels in their similarity add valuable support for the type of burial propounded, corroborating its main features. The fact that they mostly occur in groups – Howan Blow, Deerness; Finstown School and the Brae of Muckquoy, Firth; Antabreck, N Ronaldsay; Groundwater, Orphir; Crantit, St Ola; Fiddlerhouse, Sandwick; Lochside, Stenness (fig 5); and the Glebe, Stromness – adds considerable weight to the idea already suggested by Werne, Harray and Lower Ellibister, Rendall that although these cists may be found singly they belong to cemeteries.

The parallels also point to the complexity of these cemeteries. Those at Grimston, Antabreck, and Groundwater included cists with unburnt burials and at Crantit there was an example of a mixture of both types of rite. The cist in question at Crantit was two storied and points to a variability in the container the burial was placed in, as does the occurrence at Fiddlerhouse and Howan Blow of cremated bones which were, seemingly, just in a hollow. At the latter site there was a cremation in an urn in a hole in the natural subsoil.

Small finds were connected with some of the parallels; the cremated bone in one of the cists at Antabreck was on matting, an antler implement was found in the peculiar burial at Crantit and another antler implement was on the cover-stones at Waterhall, St Andrews. None of the above appear to be deliberate grave goods but the cists at Howan Blow and Gyron Hill, Sandwick, each contained small steatite vessels and it is possible that two classes of burials are represented. This notwithstanding, none of the finds are of any use in dating the burials they are associated with.

Conclusions

Childe assigned burials of this type to the Bronze Age (1946, 132), a practice followed by the Ordnance Survey (OS). Certainly, without going into unnecessary detail, cists have been found throughout Scotland, which in addition to cremated and inhumed burials (mostly the latter), have contained pottery, bronzes and personal ornaments belonging to this period; they frequently occur in cemeteries, in some instances ones including mixed types of burial rite. It is also the case, however, that similar short cists have been found, as well as other types of 'Bronze Age' burial, which, because of the grave goods contained, must be early Iron Age. Among these can be numbered ones at Moredun, Edinburgh (Coles 1904, 427–38; Ritchie & Ritchie 1972, 60), Kippit Hill, Lanarkshire (Callander 1921, 45–52) and Granton, Edinburgh (Ritchie & Ritchie 1972, 60). These are not numerous, they do not contain cremations, and they are not northern but they do serve to show the danger of assuming that all of the types of short

cist burials found in Orkney, which are not immediately dateable, belong to the Bronze Age. Although, as has been intimated, direct dating evidence for or against such total inclusion is lacking in Orkney there is one record which proves beyond reasonable doubt that the practice of burying cremated bones in short cists largely without grave goods was carried on in the Iron Age.

The ruins of Oxta Broch, Birsay were opened by the farmer in the latter part of the 19th century; it was seen as an accumulation of stones which were to be removed to aid cultivation. In clearing these stones the workmen came on 'a great number of short cists or graves from 2 ft 6 in to 3 ft (0.76-0.91 m) in length and a foot and a half in width and depth (0.46 m), formed in the usual way by flags set on edge with stone bottoms and covers. The cists contained burned bones and ashes'. A large bowl-shaped stone urn, containing ashes and fragments of bones, was found in one of the cists, and the half of a bronze ring in another. Also 'the figure of an eagle was boldly cut on the covering stone of one of the cists'. On the removal of the cists the broch buildings were exposed (RCAMS 1946, no 11 & refs cited therein). The stratigraphic position of the burials, their nature and the presence of the symbol stone suggest that they belonged to the pagan part of the Pictish period.

Although it is disappointing that none of the Lower Ellibister cists published here produced dateable artefacts or organic material it is hoped that the case is made for a reconsideration of the date of these and other types of burial. They may indeed belong to the Bronze Age but our knowledge of Iron Age burials in Orkney is exceedingly slight and there is a well grounded suspicion that, due to a lack of evidence to the contrary, all burials have been subsumed under a Bronze Age heading, whether they belong to that period or not. It is the case that a lot of fresh work needs to be done on Orkney funerary practices in general and, considering the paucity of grave goods and the mixed nature of cemeteries, the best way forward is not by just excavating single burials as they arise. If a single grave of this type is found by accident then the cemetery it may belong to ought to be systematically looked for and excavated in the hope that one or more burials will have dateable contents and that, at least, certain rites may be shown to coeval.

APPENDIX 1: Details of the cists here published for the first time

1. GARSETTER, BIRSAY (NGR HY 256278)

Discovery and excavation

In April 1978 while ploughing the fifth field W of Garsetter and adjacent to Dounby road, John Whitelaw struck and broke the capstone of a cist. The site was recorded by Bryce Wilson, Museums Officer, who handed this information and the contents to the North of Scotland Archaeological Services.

Structure

The cist was oriented WNW-ESE and was, internally, 1 m long, 0.48 m wide and 0.58 m deep. The sides were single flags, as had been the capstone, but it is not clear whether the bottom was flagged or not.

Contents

No earth had percolated into the structure prior to its discovery. Wilson found among tumbled in ploughsoil a pile of cremated bone and cramp in the SW corner of the structure.

The bones (GB 78, 1) were sent to Dr D Luke. His analysis is given in full in appendix 3 but it can summarily be said here that the cist contained the cremated bones of one individual who was more than 30 years old at the time of death. There was additionally a root fragment from a non-human tooth.

The bones were sent to the Glasgow Laboratory for C14 assay but insufficient collagen was preserved.

Sources

Orcadian, 20th April 1978, p 1.

2. TORRIEDAY, FIRTH (NGR HY 353127) (fig 2)

Discovery and excavation

The cist was found on the 17th April 1978 when a field NW of Torrieday was being ploughed. Margaret Horrie, the owner, informed Bryce Wilson, Museums Officer, who notified the author. Excavation took place on the 25th April; a trench was placed around the cist and its contents examined.

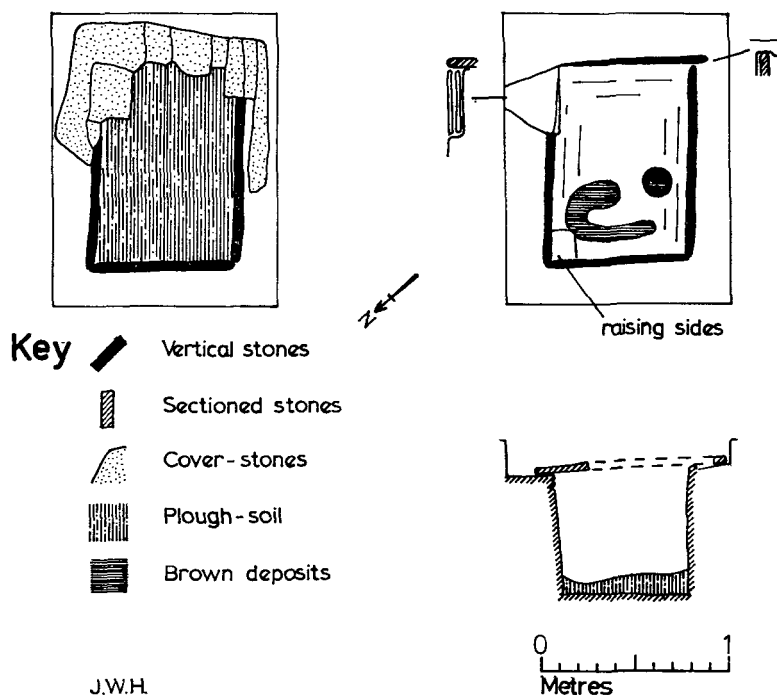


FIG 2 Torrieday, Firth

Structure

The cist was oriented NE-SW, was, internally, 1 m long, 0.72 m wide and 0.64 m deep with sides, bottom, and probably top, made of single flagstones. When the site was visited the capstone could be seen to have been shattered by the plough and most of the pieces were stacked on one side. Clearance of the ploughsoil around the edge revealed that it had been irregular, 1.15 m wide and probably in excess of 1.3 m long. The cist itself was of box construction, the slabs it was made of meeting at their corners and the bottom having apparently been put in place before the sides. The sides exhibited three peculiar features; underneath the W corner a stone had been placed to jack up the flags so that their top surface was level; the NW flag had a notch in the top of its N end which had been filled in with two stones placed horizontally; and the NE stone was lapped over the SE at the top with a manufactured tongue.

Contents

No earth had percolated into the structure before discovery but when seen it contained ploughsoil up to 90 mm deep. All that lay under this was a thin layer of dark brown humic sludge which was concentrated in two patches towards the SW end. No bone survived.

3. HINDRAFIOLD, HARRAY (NGR HY 32451857)

Discovery and excavation

In autumnal ploughing the capstone of the cist was split and taken up. Bryce Wilson, Museums Officer, recorded the structure in October 1977 and handed this information and the contents over to the North of Scotland Archaeological Services.

Structure

The cist was oriented NNE-SSW and was, internally, 0.74 m long, 0.45 m wide and 0.4 m deep. The bottom was just natural boulder clay and the sides were of single flagstone; judging from a photograph taken by Gunnie Moberg the ends of these joined at the corners. The capstone had been 0.96 m long and 0.92 m in width.

Contents

No earth had percolated into the cist prior to discovery. Wilson found, among ploughsoil that had dropped in, a pile of cremated bone and cramp in the N corner of the cist.

The bones (HI 77, 1), weighing some 2.2 kg, were examined by Dr D Luke. His full analysis is given in appendix 3 but it can be summarily stated here that the cist contained the cremated bones of one individual about 40 years old and that there were no animal bones present. Cramp adhered to some of the bones.

The bones were sent to the Glasgow Laboratory for C14 assay but insufficient collagen was preserved.

4. WERNE, HARRAY, (NGR HY 321180) (fig 3)

Discovery and excavation

The discovery of a cist (no 1) during grading at Werne was brought to the attention of Andrew Appleby by the owner of the house building site, R Firth. Subsequently two more were found in the process of machining (nos 2 & 3) and all were excavated and recorded by Appleby who passed the information gathered to the North of Scotland Archaeological Services.

Due to the circumstances of the discovery, to time and finance it was not possible to exhaustively explore the area for further burials; as it was all graded however it is quite unlikely that any more existed immediately around those found. Appleby dealt with the cists during the evenings over a two week period in June 1978.

WERNE CIST I

Structure

The cist was oriented ENE-WSW, and was, internally, 1.18 m long by 0.75 m wide and 0.8 m deep. The sides and bottom were single flags but the capstone was in fragmented condition; it was preserved *in situ* in four places and its length would have been at least 2 m and its width 1.2 m.

The long sides of the cist projected beyond the short ones except in the SW corner where they met end to end giving the floor a trapezoid shape. The flag used for the S side had an irregularity in its shape in that the bottom 0.45 m projected 20 mm out from the rest of its surface; the end of the E stone had been dressed back so as to fit this neatly. The flag forming the base had apparently been put in after the sides had been erected.

In order to accommodate the cist a rough hole 2.46 m long and 1.83 m wide had been dug; the excavator defined the top of this, particularly, in the western half of the feature. On the backfill were large stones which were also on the remnants of the capstone and he posited that these were a cantilever support for the latter. He excavated the backfill away between the projecting E ends of the side flags and discovered large stones, including a 'pillar' 0.65 m high, placed there, probably, to keep the stones of the cist in position while the hole was being backfilled. He also raised the flagstone of the floor and found under it, in the base of the hole dug to receive the cist, several items discussed below.

Contents

This cist had been excavated at some previous time and there was a disturbed fill (L2) containing modern, unburnt, and ancient, cremated, bone (WE 78, 3 & WE 78, 9) together with cramp (WE 78, 5) and a flint chip (WE 78, 7). Below this there was a thin layer of cremated bone on the floor (L3) which was c 40 mm thick and said to be undisturbed. In the NE and SE corners were many more clayey deposits and the former contained some pottery sherds (WE 78, 11) and the latter a replaced piece of textile (WE 78, 17). Amongst the bones (WE 78, 10 & WE 78, 13) was cramp (WE 78, 8) and some microfauna (WE 78, 14) which was probably intrusive. On raising the bottom flag the excavator found in loose backfill (L6) more cremated bone (WE 78, 1, WE 78, 6 & WE 78, 15), cramp (WE 78, 2 & WE 78, 4) and microfauna (WE 78, 12) which, again, was probably intrusive.

WE 78, 7 *Flint chip*. Irregular; honey coloured. May just be crushed gravel. ML 12 mm, MW 8 mm, MT 6 mm (L2).

WE 78, 11 *Potsherds*. Two joining rim sherds with light pink outer surface and dark slate core; gritting seems to have consisted of large pieces of crushed flagstone. The rim meets the inner surface at right angles but goes down to meet the outer one in a smooth curve. H (pres) 15 mm, MT 9 mm, ML (frag) 24 mm. Additionally there are three very small fragments and a body sherd. The latter has only one dark grey surface preserved; the core is of a similar colour and contains large crushed flagstone grit. L (pres) 31 mm, W (pres) 24 mm, T (pres) 6 mm (L3).

WE 78, 17 *Textile replacement*. A buff coloured replacement of a piece of fine convoluted textile and another possible piece. The former includes a rolled piece of cloth of at least two thicknesses. The weave is plain and loose and the yarn fine. In one system the yarn is Z spun, 0.4 mm in diameter and there are approximately 24 per cm; in the other it is S spun 0.4 mm in diameter and there are approximately 12 per cm. ML 36 mm, MW 21 mm, MT 13 mm (L3).

The bones (WE 78, 1, 3, 6, 10, 13 & 15), weighing some 2.2 kg in total were examined by Dr D Luke. His full analysis is given in appendix 3 but it can be summarily stated here that in the cist were the cremated bones of one individual aged between 30 and 40 at the time of death.

WERNE CIST 2

The cist was oriented E-W and was, internally, 1 m long, 0.63 m wide at the E end and 0.54 m at the W end, and 0.64 m deep. The capstone was not preserved but the bottom and sides were made of single flags, the long ones projected beyond the short ones. In order to accommodate the cist a rough hole had been dug 2.49 m wide, 2.65 m long and 1 m deep. The cist was not placed centrally in this but to the N: the sides had been put in first and then the base. Around the top of the infill of the hole were large stones. Appleby excavated away the backfill of the construction hollow between the projecting side flagstones at the E and W end and found stones placed to keep the cist stones in position. The S stone of the cist had a semicircular hole 0.12 m in minimum diameter and 0.2 m in maximum diameter near the top of its E end; this suggests re-use.

Contents

The cist seems to have been excavated on some previous occasion and the contents, L9, were disturbed. In this there was some cramp (WE 78, 18) and cremated bone (WE 78, 19).

The bones, weighing some 108 gm were submitted to Dr D Luke whose full analysis is given in appendix 3. A summary of his findings is that the cist contained the remains of an adult.

WERNE CIST 3

Structure

The cist was oriented NNW-SSE, was, internally, 0.4 m long, 0.26 m wide and 0.5 m deep. The capstone was not preserved and the bottom of the cist was just rough natural rock. The sides were of single flagstones, the long ones projecting only at the N end. To accommodate the cist a rough circular hole had been dug 0.8 m long, 0.9 m wide and 0.64 m deep and the backfill in this included some large stones. This grave was seriously damaged by machinery.

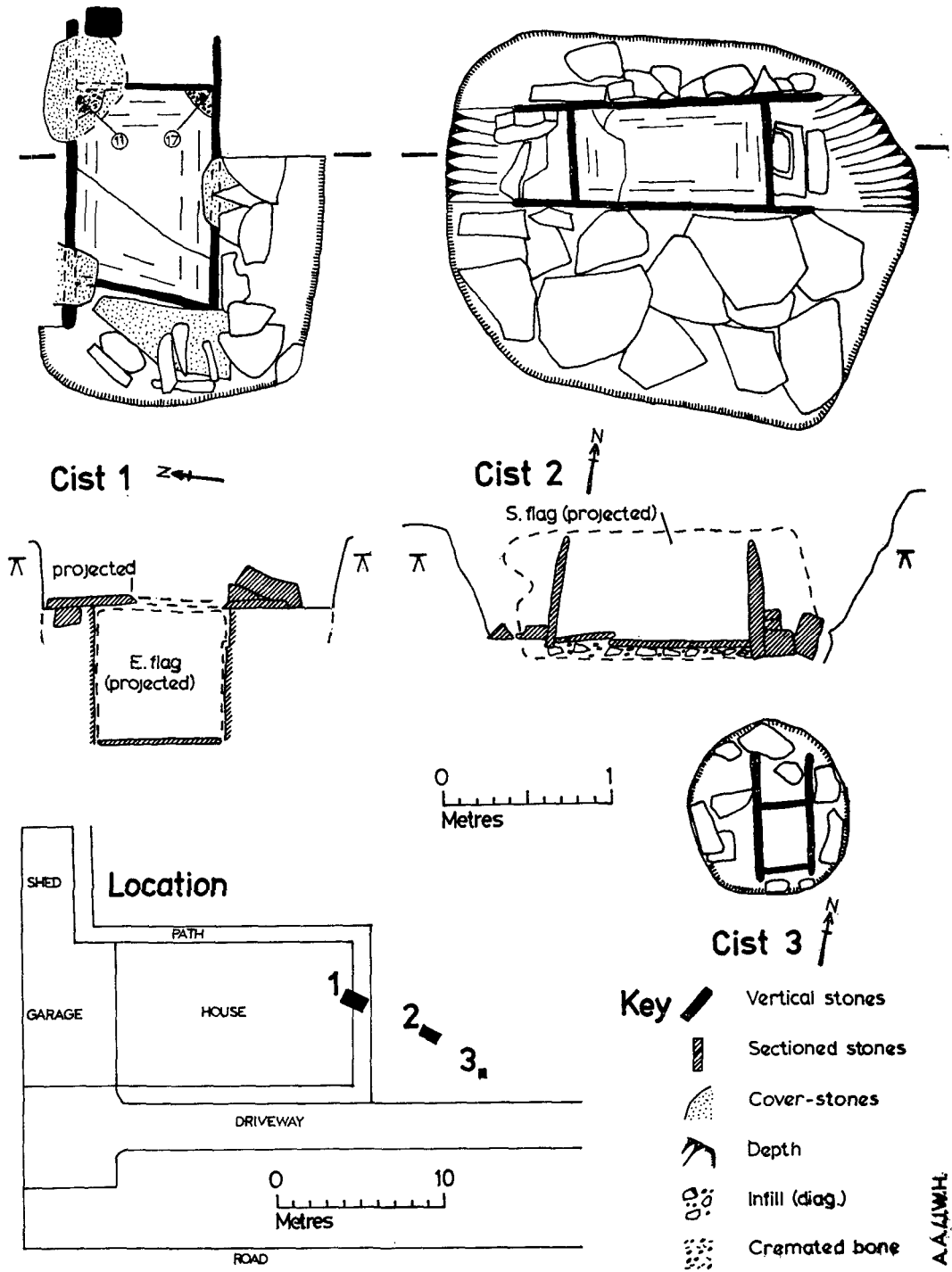


FIG 3 Werne, Harray

Contents

The cist had probably already been excavated as it only contained topsoil.

5. HA', RENDALL (NGR HY 424203)

Discovery and excavation

The cist was discovered by Stephen Bichan on a ridge of land in the 'manse field' early in March 1969; photographs indicate that this was during ploughing as the cover stone was scraped and out of position. On the 22nd March Evan MacGillivray and Ernest Marwick took the cover stone off and measured and photographed the cist.

Structure

The cover stone was 1.48 m in length and 0.8 m wide and had been over a cist oriented NNE-SSW. The cist itself was trapezoid in plan and was approximately 0.92 m wide at the N end, approximately 0.76 m wide at the S end and approximately 1.12 m long. These are probably external measurements. The depth of the structure was not recorded but in the photographs it looks to be around half a metre. The bottom was a single flagstone as, basically, were the sides. According to the extant sketch the edges of these met at the corners. Peculiarly, the end stones were not as high as the side ones and this deficiency had been made up in both cases with a single lintel-like stone laid flat.

Contents

It was said that water seemed to have seeped in over a long period and that 'only an inch or two of wet clay was found inside, spread evenly over the flagstone which formed the bottom of the cist'.

Sources

Disused display card, Tankerness House Museum, Kirkwall.
Pers comm with and photographs from the late Ernest W Marwick.

6. LOWER ELLIBISTER, RENDALL (NGR HY 386212) (fig 4)

Discovery and excavation

While ploughing the 'castle field', Lower Ellibister in March 1976 Morgan Harcus took the top off a cist some 220 m due W of the farmhouse and against the farm track. He replaced the capstone and his father communicated the discovery to Ernest Marwick who, in turn, notified the author and M E Hedges. Excavation took place on the 3rd and 4th April; a trench was placed around the cist, its interior examined, and the N half of the hole dug to receive it excavated.

Structure

The cist was oriented NE-SW, was, internally, 0.8 m long, 0.5 m wide and 0.55 m deep with sides and bottom and top made of single flags. The latter was irregular and had originally been 1.44 m long and 0.72 m wide. The long sides of the cist projected beyond the short ends and the bottom flag had been positioned after this box had been made. In order to accommodate the structure a rough hole 0.6 m deep and with a minimum width of 1.4 m had been dug into the natural boulder clay; the sides of the cist were kept in place with large stones and the hole backfilled around it.

Contents

No earth had percolated into the structure before discovery and, in spite of a small amount of recent topsoil which had fallen in, the original deposits could be clearly seen to consist of a central pile of cremated bones and cramp 80 mm high and 0.35 m in diameter and a peat ash scatter in the NE corner.

The bones (LE 76, 1) weighing some 650 gm were examined by Dr D Luke. His full analysis is given in appendix 3 but it can be summarily stated here that in the cist were the cremated bones of one individual about 18 years old and that there were no animal bones present. Many of the long bones had cramp adhering to their inner (marrow) surfaces suggesting that they were broken open before or during

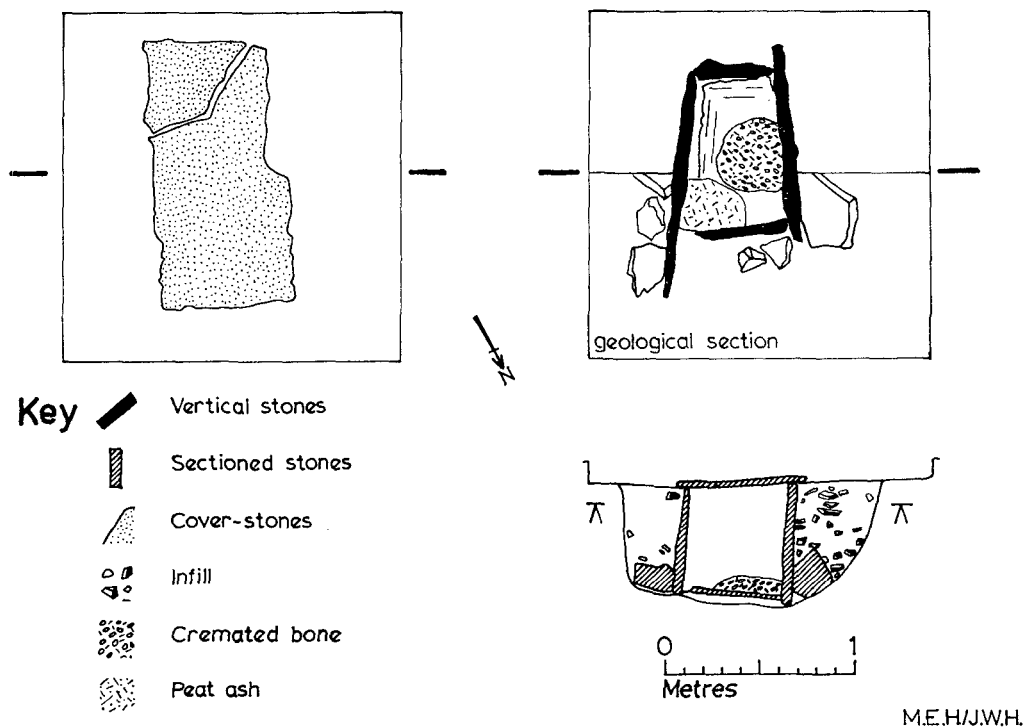


FIG 4 Lower Ellibister, Rendall

cremation. The bones were sent to Glasgow laboratory for C14 assay but insufficient collagen was preserved.

What looked like a body-herd of coarse light pink pottery (LE 76, 2) was found amongst the cremated bones. This measured 30 × 24 mm and was 10 mm thick; no tempering was seen and it is possibly just a piece of baked clay.

Other neighbouring antiquities of interest

Morgan Marcus said that on several occasions he had ploughed up flagstones but had not been aware of where they came from. One he showed the author, by example, was trimmed and grooved and was obviously from a cist. There is, further, to the SW of the cist a large mound which judging from the field's name (pers comm Ernest Marwick) was a fortification and quite possibly a broch. The mound used to be much higher and over the last quarter of a century some 75 loads of stone have been taken from it after ploughing. Field walking revealed a wide scatter of finds and materials.

7. SANDYHA', RENDALL (NGR HY 399194 approx)

Discovery and excavation

The cist was examined by Ernest W Marwick and Evan MacGillivray on the 8th June 1968. The earliest of a sequence of photographs shows it with the cover-stone in place, in a freshly ploughed field. In the background is a mound identifiable as the N one of the group at Sandyha' and the farmhouse of Hogarth can also be seen; from this the approximate grid ref was determined.

Structure

The cist was oriented approximately E-W. The cover-stone and sides were of single flagstones; the long sides projected beyond the short ones. Externally, the side slabs were said to be 0.91 m long, the width of the feature c 0.5 m and its depth in the region of 0.4 m. The bottom is said to have been natural clay.

Contents

When the cover-stone was removed the cist was full of what looked like very loose ploughsoil. It is quite possible that the cover-stone had been taken off when the cist was found in ploughing, that the cavity was filled with ploughsoil, and then the structure was restored to something like its original condition when it was to be 'examined'. Removal of this fill revealed a pile of cremated bones, centred but a little towards one of the long sides.

Other neighbouring antiquities of interest

The location of this cist is in the middle of up to six burial mounds only three of which survive.

Sources

Pers comm with and photographs from the late Ernest W Marwick.
RCAMS 1946, no 280.
OS HY 31 NE 7.

8. SOUTH ETTIT, RENDALL (NGR HY 422197 approx)

Discovery and excavation

The cover-stone of the cist was broken by Mr J Linklater in March 1968 when he was ploughing on a ridge of ground behind his farm at S Ettit. It was recorded photographically by Evan MacGillivray and Ernest Marwick on the 2nd March.

Structure

The cist was oriented ENE-WSW and was recorded as 0.96 m long, 0.46 m wide and 0.5 m deep; apart from the latter these are external measurements. The flagstone cover had been 1.48 m long and 0.4 m wide. The sides and bottom were of single flags and the long sides projected slightly beyond the ends; the bottom is noted as being 'closely fitted to size' and may have been inserted after the sides. It was observed that 'provision had been made (for the cist) by quarrying into the boulder clay'.

Contents

'There was a small heap of charred bones and ashes in the bottom, but no artefacts of any kind. The contents of the grave were carried to Kirkwall in plastic bags for further examination.' These have not been traced.

Sources

Orcadian, Thursday March 21st 1968.
Disused display card in Tankerness House Museum, Kirkwall.
Pers comm with and photographs from the late Ernest W Marwick.

9. CLEAT, ST OLA. (NGR HY 46981175)

Discovery and excavation

The cist was found by G Rendall of Cleat while ploughing a slight natural rise in 1969 and was excavated by Evan MacGillivray, Ernest Marwick, and others.

Structure

The cist was oriented N-S and was 0.9 m in length, 0.5 m wide, and 0.5 m deep; these may be external measurements. The cover-stone and sides were of single flagstones; the OS only mention four slabs and the cover-stone being preserved so it may be that the bottom was unflagged. The sides seem to meet at their ends although one long one may project slightly at a corner. A stone had been placed diagonally across one corner, presumably, to raise this to the horizontal.

Contents

Although the cover-stone is shown in position in one of the original photographs it is very likely to have been replaced. In the cist was a fill of loose ploughsoil among which was straw, which was to be

seen in the field generally. Marwick said there were cremated bones in the cist and one photograph shows the excavators recovering pieces from the intrusive ploughsoil, there is a cardboard box nearby and the bone may have been taken away but it has not been traced.

Sources

Pers comm with and photographs from the late Ernest W Marwick.
OS HY 41 SE 15.

APPENDIX 2: Parallels in Orkney

1. HOWAN BLO, DEERNESS. (NGR HY 571060)

Discovery and excavation

The cover of a cist was ploughed up in February or March 1929 by Mr Aim of Blows on the crest of a natural hillock known as Howan Blo. It was examined by H Marwick and T S Peace together with the photographer T Kent.

Structure

The cist, presumably internally, was 0.51 m long, 0.41 m wide, and 0.46 m deep. Its sides and cover-stone were of single flags but the bottom consisted of the hole dug for the cist levelled off with stone chippings.

Contents

In the cist was a layer of calcined bone about 140 mm thick; resting on this, on its side, was a small steatite urn. This urn was 0.21 m high, 0.15 m across the rim and 0.11-0.13 m across at the base; around it, below the rim was a shallow indentation.

Other neighbouring antiquities of interest

In 1933, a few feet away, an urn containing bone ash and potsherds was found in a hole dug in the clayey soil. 1.5 m away a third cremation was found deposited in a hollow excavated in the subsoil. Previous to 1929 another cist had been found in the vicinity.

The finds are in Kirkwall Museum.

Sources

OS HY 50 NE 5
RCAMS 1946, no 636
Marwick 1929, 377-9
Marwick 1929, 75
Grant 1933, 343-6
Callander 1934, 9

2. FINSTOWN SCHOOL, FIRTH (NGR HY 362142)

Discovery and excavation

Several cists were found a few inches below the surface when the field immediately W of Finstown School was first cultivated. There were no indications of overlying mounds.

Structure

The structures found were described as short cists and were generally stated to be 0.46 m long and 0.3 m wide.

Contents

Each cist contained a small heap of cremated bones.

Sources

OS HY 31 SE 20
RCAMS 1946, no 356
Wood 1927, 57

3. BRAE OF MUCKQUOY, FIRTH (NGR HY 37601740)

Discovery and excavation

Several cists were found about 1877 in the Brae of Muckquoy when it was brought under cultivation.

Contents

Contained partly burnt bones. Scott picked up, in addition to yellow flint flakes, pieces of cremated bone after ploughing and harrowing.

Sources

OS HY 31 NE 13.
Fraser 1927, 53
Pers comm I Scott, Rendland, Firth
RCAMS 1946, no 354

4. GRIMSTON, HARRAY (NGR 323145)

Discovery and excavation

Discovered by J Gray on his farm of Hundatown, Grimston on 29th July 1926 128 m NE of the farm buildings. It was excavated that summer by Kirkness.

Structure

The cist was oriented E-W and was, internally, 0.76 m long, 0.53 m wide and 0.53 m deep. Its sides and cover-stone consisted of single slabs the latter of which was 1 m long and 0.85 m wide. At either end of this cover there had been a stone 0.51 m by 0.13 m by 0.11 m and on these were laid two stones which extended the whole length of the grave. These in effect formed a separate cover, leaving a space of 0.11 m between them and the cover-stone below. Apparently two stones formed the bottom, one 0.71 m long and the other 0.14 m.

Contents

The bottom of the cist was covered with calcined human bones.

Other neighbouring antiquities of interest

7.6 m to the W another burial had been found containing a doubled up skeleton and the farmer thought there might yet be another in the immediate neighbourhood.

In another field on his farm Gray had found several small graves about 0.45 m long and about 0.3 m wide, containing a small heap of burnt bones in one corner.

Sources

OS HY 31 SW 33
Kirkness 1927, 239-40

5. ANTABRECK, NORTH RONALDSAY (HY 75845411)

Discovery and excavation

Two cists were found in 1874 near the E end of the farm steading at Antabreck in a field of clay loam. They lay end to end and about 0.3 m below the surface.

ANTABRECK CIST 1

Structure

Composed of rectangular flagstones and 1.34 m long, 0.7 m wide and 0.73 m deep. Recently rediscovered with cap-stone intact.

Contents

A heap of ashes, apparently of wood, among which were some calcined bones. This burnt material appears to have been laid upon a coarse cloth or interlaced rushes. A sample of charred wood, ashes, burnt bones and coarse cloth was donated to the National Museum of Antiquities of Scotland.

ANTABRECK CIST 2

Structure

Cist, 0.76 m long, 0.61 m wide and 0.46 m deep.

Contents

Portions of two skeletons and some brown earth which may have fallen in.

Sources

Traill 1876, 309–10

Proc Soc Antiq Scot, 11, 1874–76, 265

RCAMS 1946, no 208

OS HY 75 SE 12

Henshall 1952, 7

6. GROUNDWATER, ORPHIR (NGR HY 37450894)

Discovery and excavation

The first cist (no 1) was found by Mr Slater, tenant, on the brow of the hill about 800 m NE of the farm buildings. It (and the cists found subsequently) did not appear to be in, or marked by, a mound. This cist was examined by J Storer Clouston and Hugh Marwick in January 1928. In the spring of 1929 three more cists in close proximity were found by Slater in the same place (nos 2–4) and were examined by Clouston and Marwick. Of these only 1 and 3 come properly within our class.

GROUNDWATER CIST 1

Structure

About 0.46 m square, presumably internally, with sides of edge-set flagstones.

Contents

Half full of earth and fragments of bone.

GROUNDWATER CIST 3

Structure

4.56 m SE of 2, oriented E–W and having sides of edge-set flagstones. The dimensions of this were; length 0.48 m, width 0.35 m, depth 0.41 m. Presumably these measurements are internal.

Contents

Half full of earth containing ash and small fragments of cremated bone. According to Low (Marwick 1929a, 385) the bones were human and there was cramp with them.

GROUNDWATER CIST 2

Structure

This cist was oriented NW-SE and was, presumably internally, 0.56 m long, 0.46 m wide and 0.46 m deep. The sides were of edge-set flagstones and in the bottom was another flagstone which was smaller than the cist.

Contents

The cist was partly filled with ashes and earth; apart from a rodent skull there were no bones observed.

GROUNDWATER CIST 4

Structure

4.56 m NE of 3 and noticeably deeper down than the other. Its length was 0.76 m, width 0.43 m and depth 0.38 m; presumably these are internal measurements. The sides were edge-set flagstones and, one being too narrow, the space was spanned by another smaller slab set obliquely across one corner. There were apparently three or four cover-stones topped with nearly 0.6 m of clay, above which was the blanket peat of the surface.

Contents

Fine earth or silt had percolated in and covered the floor to a depth of c 90 mm. There was half a skull and a number of other bones lying in such a position as to suggest that the body had been interred on its side in a contracted position with its head to the SE; the other bones are presumed to have been dissolved by the acidity of the microenvironment. Low (Marwick 1929a, 381-3) considered the bones to be of a male about 25 years old who was c 1.61 m tall.

Sources

Marwick 1929a, 380-3
OS HY 30 NE 14
RCAMS 1946, no 491

7. WATERHALL, ST ANDREWS (NGR 520095)

Discovery and excavation

Investigated by G Petrie on 22nd June 1863, on the N shore of the Loch of Tankerness.

Structure

The cist was oriented NNW-SSE and was, internally, 0.92 m long, 0.53 m wide and 0.76 m deep. It was built of four slabs set on edge and of these the lateral ones projected some distance beyond the ends. Two stones, both roughly dressed, provided a cover. The lower was 1.26 m long and 0.6 m wide and the upper was 1.14 m long and 0.72 m wide.

Contents

The cist contained burnt bones and ashes. On the cover-stones Petrie found a 'bone hammer' but it has been lost.

Sources

RCAMS 1946, no 660
OS HY 50 NW 4

8. CRANTIT, ST OLA (NGR HY 43880968)

Discovery and excavation

Found in January 1924 by the tenant of Crantit, Mr Bruce, when he was ploughing. It was examined shortly after by H Marwick, W Traill and T S Peace in his company.

Structure

The cist was oriented NW-SE and was, internally, 1.04 m long on the NE side and 1.22 m on the SW; it was 0.66 m deep and wide. The cover-stone and sides were of single stones but the bottom was in three parts although it may just have been cracked. The cover-stone was 2 m long and 0.73 m broad. Apparently the NW end slab is said to have been banked up on the outside by built stones.

Contents

No earth had percolated into the cist prior to its discovery. In the N corner was a pile of cremated bone – quantified as five or six pints – and in the E corner there was a smaller pile. Between the two deposits of bone was one of yellow brown ashes.

Other neighbouring antiquities of interest

At HY 43850968 was found a two-storied cist. The roof of the upper storey was about 0.6 m below ground level; this storey was empty, measured about 0.6 m square and 0.3 m deep and had sides of drystone masonry. Its bottom was the roof of the lower storey which was 0.94 m long, 0.66 m wide and 0.53 m deep. This was constructed of edge-set flags, with a flag bottom, and contained a flexed skeleton, some cremated bones, and an antler hammer (Cursiter 1910, figs 1 & 2).

Sources

Kirkness 1927, 239, fig 1
 Marwick 1924, 48
 Cursiter 1910, figs 1 & 2
 OS HY 40 NW 3
 RCAMS 1946, no 433

9. BACKASKAILL, SANDAY (NGR HY 641394)

Discovery and excavation

Exposed in ploughing on the slope of a hill 100-150 m NW of Backaskail farmhouse a few years before 1928.

Structure

Described as a short cist.

Contents

Burnt bones and ashes.

Sources

OS HY 63 NW 15
 RCAMS 1946, no 190

10. FIDDLERHOUSE, SANDWICK (NGR HY 25821581)

Discovery and excavation

J Marwick of Fiddlerhouse whilst ploughing during the winter 1927-28 obliterated an earthen mound and discovered five cists and a patch of ash and bone. These were described to the Ordnance Survey Field Investigators in 1973. Of these, four of the cists, strictly, belong to our class (2, 4, 5 & 6).

FIDDLERHOUSE CISTS 2, 4, 5 and 6

Structure

Likened to 1 (which was made of edge-set flagstones and was a short-cist) but said to be rougher.

Contents

Each is said to have contained a cremation.

FIDDLERHOUSE CIST 1 (HY 25821575)

Structure

Cist c 0.6 m long, 0.5 m wide and 0.7 m deep with sides, bottom and cover made of single flags.

Contents

There was nothing in this cist.

FIDDLERHOUSE CIST 3 (HY 25831582)

Opened prior to 1894; no information.

There had also been an earthen mound at HY 25841578 (7) about 4 m in diameter with an upright slab c 1 m high protruding through the turf. At HY 25901570 (8) Marwick uncovered a patch of ash and cremated bones in a natural hollow. This was said to be c 2 m in diameter and 1 m deep.

Sources

OS HY 21 NE 27

11. GYRON HILL, SANDWICK (NGR HY 24031553)

Discovery and excavation

A cist was found in January 1885 in a low natural knowe on Gyron Hill.

Structure

The cist was oriented NW-SE and was internally, 0.71 m long, 0.38 m wide at the SE and 0.44 m at the NW, and 0.58 m deep. The cover-stone, bottom and sides were of single flags.

Contents

It contained a few burnt bones, a small quantity of earth and a small steatite urn (which was in the NW corner). The urn was c 120 mm across the mouth, c 90 mm across the base and c 76 mm high and it had a flat incised band below the rim; its present whereabouts are not known.

The site is within 50 m of several artificial mounds including one which contained an upright steatite vessel full of cremated bones which was in a rough cist.

Sources

OS HY 21 NW 10

OS HY 21 NW 9

Watt 1885, 160-1

12. LOCHSIDE, STENNESS (NGR HY 312137) (fig 5)

Discovery and excavation

In April 1928 six cists were found in ploughing on the farm of Lochside and were examined by members of the Orkney Antiquarian Society. Only one had cremated bones in it (no 4) and, strictly speaking, only this one belongs to our type. It is noted that there were no surface indications of the cists.

LOCHSIDE CIST 4

Structure

The cist was oriented NNW-SSE and was, internally, 1.06 m long, 0.58 m wide at the N end and 0.52 m at the S, and 0.61 m deep. It was made of four edge-set flagstones; no cover-stone is mentioned in this entry but it is said that all of the cists had them and little earth had in consequence percolated into the interior.

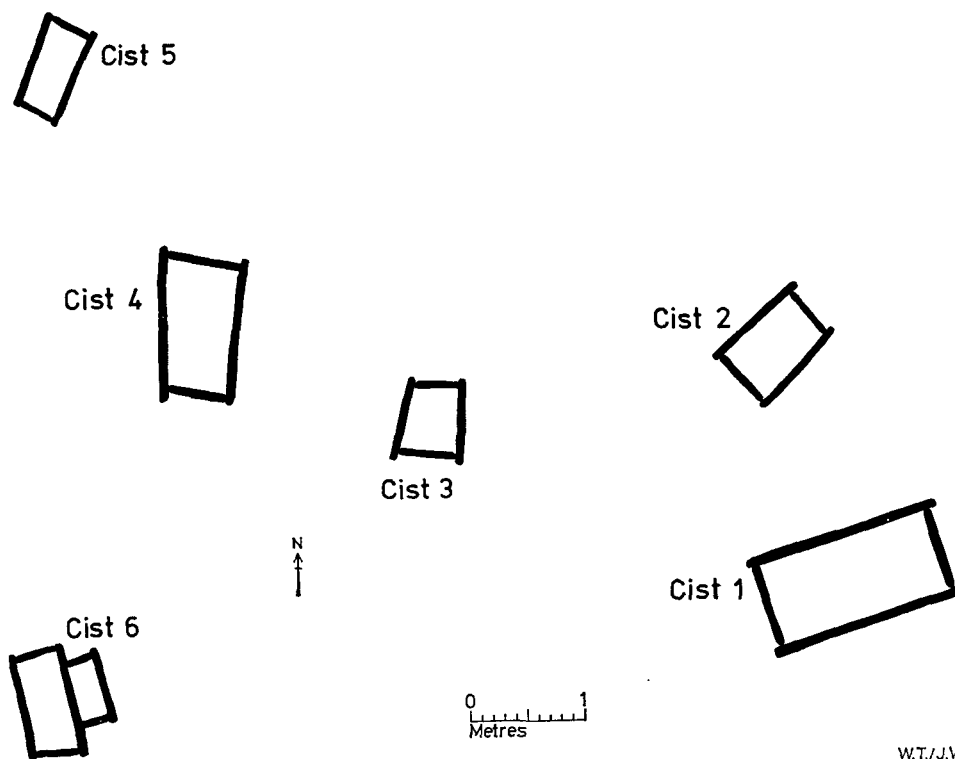


FIG 5 Lochside, Stenness. (after Greig 1931, 60)

Contents

There was no earth fill. Charred bones lay in a heap in the N end.

LOCHSIDE CIST 1

Structure

The cist was oriented ENE-WSW and was, presumably internally, 1.47 m long, 0.7 m wide and 0.76 m deep. The sides were of single, edge-set flagstones. It had two cover-stones, the under one measuring about 1.72 m by 1.03 m and the upper one; 0.82 m by 0.71 m.

Contents

Nothing was noted in the cist.

LOCHSIDE CIST 2

Structure

The cist was oriented NE–SW and was, presumably internally, 0.73 m long, 0.4 m wide at one end and 0.53 m at the other, and 0.58 m deep. The sides were of single, edge-set flagstones. The cover-stone was described as hexagonal and measured 1.06 m × 0.79 m.

Contents

Nothing was noted in the cist.

LOCHSIDE CIST 3

Structure

The cist was oriented NNE–SSW and was, presumably internally, 0.53 m long, 0.39 m wide at the N end and 0.46 m at the S, and 0.46 m deep. The sides were of single, edge-set flagstones. There were two slabs covering the cist but these were overlain with small slabs, as if a slab large enough for covering had not been available.

Contents

Nothing was noted in the cist.

LOCHSIDE CIST 5

Structure

The cist was oriented NNE–SSW and was, presumably internally, 0.68 m long, 0.33 m wide, and 0.46 m deep. The edges were of single, edge-set flagstones. It had two cover-stones.

Contents

Nothing was noted in the cist.

LOCHSIDE CIST 6

Structure

The feature was oriented NNW–SSE and consisted of two cists with a common side. The larger was presumably internally, 0.81 m long, 0.39 m wide and 0.53 m deep; the smaller was 0.48 m long, 0.24 m wide and 0.46 m deep. The edges of these were single, edge-set flagstones. One slab covered both cists and measured 1.03 m by 0.84 m.

Contents

Nothing was noted in either part of this feature.

A cist was found in the neighbourhood 1.27 m long and 0.61 m wide and deep; this contained the remains of two skeletons.

Sources

OS HY 31 SW 32

Greig 1931, 60–1

RCAMS 1946, no 912

Orcadian, 14th August 1925, 4

Anonymous 1920, 165

13. THE GLEBE, STROMNESS (NGR HY 251079 approx)

Discovery and excavation

The first cist was found on the 29th April 1924 when Mr T Anderson, tenant of the Glebe, struck its cover while ploughing. The second was discovered in excavating the first. Both were about 0.15 m

below the surface of what was described as a mound; the detailed description of this makes it sound as though it was natural.

GLEBE CIST 3

Structure

Oriented N-S and 0.67 m long, 0.35 m wide and 0.43 m deep. Slabs of well cut stone are said to have formed the sides, and the bottom, while the covering stone was large enough to exclude completely the adjoining soil.

Contents

No soil had percolated into the cist prior to its discovery. Centrally there was a pile of bones which were covered with a greenish substance (probably cramp).

GLEBE CIST 2

Structure

Oriented NE-SW and said to have been the same size as the other cist.

Contents

Centrally in the cist was a pile of cremated bones which had on them a greenish substance (probably cramp).

Other neighbouring antiquities of interest

In 1929 three large cists containing unburnt human remains were found on the golf course itself.

Sources

OS HY 20 NE 19

RCAMS 1946, no 928

Orcadian, 1st May 1924, 5

10th October 1929, 5

17th October 1929, 4

APPENDIX 3: Cremated bones from five of the cists

Dr D A Luke, Anatomy Department, Guy's Hospital, London

The cremated remains from five of the cists were examined; a summary is given below while the details are also presented in tabular form (table 2). The only sample requiring special mention was that from Werne 1. Bones came from three contexts and were analysed separately; as this analysis suggested they all came from the same deposit originally the data have been merged in table 2.

1. GARSETTER, BIRSAY

The material examined consisted of well-calcined bone and teeth together with soil, stones and some porous vitrified material of unknown composition (cramp: JWH). The osseous fragments were very comminuted and therefore identification of individual bones was difficult. Most fragments were 10 mm or less in diameter, the largest being a piece of long bone 70 mm x 20 mm. Nevertheless, all regions of the body except the pectoral girdle were represented and all regions were equally well calcined. Mottled green vitrified material was fused to the external surface of some bones. There was no evidence of the presence of more than one human individual but a molar root fragment occurred which was almost certainly non-human and was possibly derived from a small carnivore. Some of the bone fragments may therefore also be non-human but none was positively identified as such. Dental evidence (sockets for completely formed mandibular second premolar and first molar) suggests an age of more than 12 years. Absence of any unfused epiphyses suggests an age of more than 18 years; fusion of the endocranial

TABLE 2

Analysis of excavated bones from five cists

Site	Garsetter Birsay	Hinderafeld Harray		Werne 1 Harray		Werne 2 Harray		Lower Ellibister Rendall		
Total weight of bone & teeth	1225 g	2159 g		2216 g		108 g		646 g		
Weight of soil, stones, other debris	329 g	306 g		60 g		—		53 g		
Weight of material which could be allocated to major region of body	185 g	121 g		386 g		39 g		140 g		
Weight of material which could not be allocated to major region of body	1040 g	2038 g		1830 g		69 g		506 g		
Regions	No Fragments	Wt (g)	No Fragments	Wt (g)	No Fragments	Wt (g)	No Fragments	Wt (g)	No Fragments	Wt (g)
I SKULL	44	80	30	70	114	275	12	13	64	101
Calvarium	37	65	27	60	97	243	12	13	46	66
Base	2	6	1	3	5	11	—	—	5	17
Middle face	1	2	1	3	3	5	—	—	1	2
Mandible	3	5	1	4	2	5	—	—	1	2
Doubtful	1	2	—	—	7	21	—	—	11	14
II TEETH	14	3	27	6	20	13	—	—	10	2
deciduous incisors	—	—	—	—	—	—	—	—	—	—
deciduous canines	—	—	—	—	—	—	—	—	—	—
deciduous molars	—	—	—	—	—	—	—	—	—	—
deciduous doubtful	—	—	—	—	—	—	—	—	—	—
permanent incisors	2	1	—	—	1	—	—	—	2	—
permanent canines	1	—	1	—	—	—	—	—	1	—
permanent premolars	—	—	1	—	—	—	—	—	—	—
permanent molars	4	—	10	—	16	—	—	—	7	—
permanent doubtful	7	—	14	—	3	—	—	—	2	—
III VERTEBRAL COLUMN	7	7	4	6	24	23	11	15	7	6
cervical	1	2	—	—	2	2	1	2	—	—
thoracic	—	—	—	—	—	—	—	—	—	—
lumbar	—	—	1	2	1	2	—	—	1	2
doubtful	6	5	3	4	21	19	10	13	6	4
IV THORAX	2	4	4	5	22	19	3	3	9	4
sternum	—	—	—	—	—	—	—	—	—	—
ribs	2	4	4	5	22	19	3	3	9	4
doubtful	—	—	—	—	—	—	—	—	—	—
V PECTORAL GIRDLE	—	—	—	—	—	—	—	—	—	—
scapula	—	—	—	—	—	—	—	—	—	—
clavicle	—	—	—	—	—	—	—	—	—	—
doubtful	—	—	—	—	—	—	—	—	—	—
VI PELVIC GIRDLE	5	18	1	3	3	17	1	4	1	3
hip bone	1	7	—	—	1	11	—	—	—	—
sacrum	1	3	1	3	2	6	—	—	1	3
doubtful	3	8	—	—	—	—	1	4	—	—
VII UPPER LIMB	8	55	2	25	6	24	1	1	6	8
humerus	—	—	1	20	1	16	—	—	—	—
radius & ulna	2	16	1	5	1	3	—	—	1	5
carpals	—	—	—	—	—	—	—	—	—	—
metacarpals	—	—	—	—	—	—	—	—	3	2
phalanges	2	4	—	—	2	2	1	1	—	—
doubtful	4	35	—	—	2	3	—	—	2	1

TABLE 2 (contd.)

Regions	No Frag	Wt (g)	No Frag	Wt (g)	No Frag	Wt (g)	No Frag	Wt (g)	No Frag	Wt (g)
VIII LOWER LIMB	6	18	5	6	7	15	1	3	10	16
femur	—	—	—	—	—	—	—	—	2	6
tibia & fibula	2	8	1	3	2	10	—	—	2	4
metatarsals	—	—	—	—	—	—	1	3	3	3
phalanges	—	—	4	3	2	3	—	—	2	1
doubtful	4	10	—	—	3	2	—	—	1	2
UNIDENTIFIED LONG BONES	61	290	47	191	108	350	29	75	73	137
Number of major regions (I-VIII) represented	7		7		7		6		7	
Number of individuals	One		One		One		One		One	

aspect of calvarial sutures suggests that the individual was actually more than 30 years old at the time of death. There was no evidence of skeletal or dental pathology. The sex could not be determined.

3. HINDERAFIOLD, HARRAY

The material consisted of cremated bones and teeth together with stones and some porous green vitreous material of unknown composition (cramp: JWH).

The skeletal remains weighed about 2.2 kg and were reasonably calcined from all regions of the body. Most of the skeletal fragments were less than 10 mm in size and identification of individual bones was therefore difficult. The largest bone fragment, probably from a humerus, was 90 mm long. Fragments of the following human bones were identified: fibula, humerus, sacrum, vertebrae, ribs, phalanges. A piece of the occipital bone was present as well as other calvarial fragments. The state of closure of the cranial sutures suggests an age of about 40 years but insufficient material was found to establish this with any certainty. A fragment of the lower left region of the mandible was found which was partly encrusted with porous, green-grey vitreous material as were many fragments from other regions of the skeleton.

Twenty-seven fragments, mostly roots, from calcined human teeth were present. It was possible to identify an upper third permanent molar and a lower second or third permanent molar, both with fully formed roots which establishes the age as more than 18-20 years. Other fragments were from two lower molars, an upper molar, a lower incisor, a canine and a premolar, all from the permanent dentition. The other root fragments could not be ascribed to particular teeth.

The dental and skeletal evidence suggests that the remains are those of a single human adult, perhaps about 40 years old at the time of death. There was no evidence of dental or skeletal pathology and the sex could not be determined. There was no evidence of the presence of remains from animals other than man.

4. WERNE 1, HARRAY

WE 78.3; L2

The material is well calcined and the green vitreous material (cramp: JWH) is present in small quantities fused to the external surfaces of bones but occasionally it is present on the internal aspects. A fragment of the mandible with the socket of the 3rd permanent molar (or perhaps the 2nd permanent molar if the 3rd has not developed) indicates that this tooth was fully formed at death and therefore gives an age of more than 20 years (or more than 14 years in the case of the 2nd molar). The mature state of the long bone fragments confirms that the individual was adult. The state of closure of the cranial sutures suggests an age of 30-40 years. No evidence was found from which to determine the sex. There was no evidence of the presence of animals other than man and no dental or skeletal pathology was detected.

WE 78, 10 & 13; L3

The material is well calcined, equally so from all regions of the body. A few bone fragments (long bones and calvarium) have the greenish vitreous material (cramp: JWH) fused to their external and occasionally internal surfaces. The state of closure of the cranial sutures suggests an age of 30–40 years. The sex could not be determined. The age is confirmed by the dental evidence: completely formed permanent molar roots and the socket of a completely formed upper left 3rd (or possibly second) permanent molar suggesting that the individual was more than 20 years old. There is no evidence of the presence of animals other than man and no dental or skeletal pathology was detected.

WE 78, 1, 6 & 15; L6

Apart from the teeth, the material appears to be well calcined. The teeth, however, have not been subjected to heating and appear as they would in an inhumation burial without cremation, ie the enamel is preserved but some of the dentine has been eroded by post-mortem bacterial or fungal attack. The remains may therefore be those of more than one individual although there is no anatomical evidence of the presence of more than one person. The age of the individual represented is certainly more than 20 years (from a completely formed lower third permanent molar) and most probably the age is 30–40 years because of the partial fusion of the cranial sutures. There is no evidence of the presence of animals other than man and no dental or skeletal pathology was detected. The teeth show moderate attrition, both proximal and occlusal, consistent with the supposed age and a moderately abrasive diet.

Summary

All the cremated material from Werne 1 appears to come from one individual aged between 30 and 40 at time of death.

4. WERNE 2, HARRAY

The remains are well calcined and human but there is insufficient material to add much more information to this. There was no evidence of the presence of animals other than man. The sex could not be determined. There was no evidence that the individual was immature and the size and thickness of the unidentified long bone fragments indeed suggests that the individual was an adult. The material is unusual in that no tooth fragments were found although most other regions of the skeleton were represented, including the skull, although in small amounts. No pathological changes were noted in the skeleton.

6. LOWER ELLIBISTER, RENDALL

The material examined consisted of partly calcined bones and teeth together with soil, stones and some amorphous charred carbonaceous material. The bones and teeth together weighed about 650 g. Many bones of a human skeleton were represented. The largest fragment from the skull was a piece of calvarium 50 mm × 45 mm. Fragments from the following skull bones were identified: frontal, occipital, parietal, petrous temporal, sphenoid, zygomatic bone. A fragment from the posterior region of the left side of the mandible was found and this contained the socket of a molar tooth with partially formed roots and anterior to this the sockets of a fully formed molar tooth. Part of the right maxilla was found with the sockets for the first and second premolars and the first permanent molar all of which would have been fully developed. The teeth, now lost from the sockets, would have been present in the jaws at death. The extent of formation of the upper sockets suggests that the individual was more than 13 years old and this is confirmed if the teeth now lost from the mandibular fragment are assumed to have been a second permanent molar and a partially formed and perhaps unerupted third permanent molar. Ten fragments of teeth were found and these included the crown of a lower permanent molar, the roots of an upper permanent molar, a permanent canine root and two lower permanent incisor roots. One root fragment fitted neatly into the palatal root socket in the maxillary fragment and the molar crown fitted reasonably well with the size of the third molar socket in the mandible. The crowns of teeth do not often survive cremation intact and the presence of one in this material suggests that it was unerupted and thus protected by the oral mucosa and bone at the time of cremation.

Bones from regions of the skeleton other than the skull were plentiful but their fragmentation made

identification difficult. Part of the sacrum, right fibula, ribs, vertebrae, metacarpals, femur and tibia were found. Calcination was variable in degree and was least in the bones of the leg, foot and skull-cap. Many of the long bones had fragments of grey or brownish amorphous material fused to their inner (marrow) surfaces. This contained crystalline material mixed with burnt carbonaceous material and its location suggests that the bones broke or were broken open before burning was complete.

There was no evidence of the presence of more than one individual and no remains of animals other than man were identified. The dental evidence suggests that the age at death was about 18 years. The sex could not be determined with confidence. There was no evidence from inspection of the remains of any skeletal or dental pathology.

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