

BIRSAY "SMALL SITES" EXCAVATIONS AND SURVEY 1978¹

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Preliminary excavations and survey took place at Easter 1978 for three weeks, under the direction of Christopher D. Morris, at a number of sites revealed by storm-damage or building proposals (See Fig. 1). The main programme at Easter was at Beachview 'Studio site' (a site affected by building proposals) for the University training excavation financed by the Scottish Development Department and Durham University, but a full-scale programme of rescue excavations and survey was carried out between June 24th and October 7th on sand-cliff sites along the Brough Road, which were clearly in danger of disappearing before the winter storms of 1978–9. 'Hurricane Flossie' on September 16th–17th devastated three of the four sites then under excavation, and caused severe damage at other places in the Bay of Birsay. The hastily-arranged summer excavation was thus vindicated by events. Further large-scale work is necessary, and a planned programme of rescue excavation and survey within an integrated research framework is now in train. The focus has shifted from individual sites (such as the Brough of Birsay, on which excavations were halted temporarily in 1978) to the range of sites and their inter-relationship around the Bay, leading ultimately, it is hoped, to some understanding of the mechanism of evolution of settlement in this single area of Orkney. A programme of environmental sampling has been begun and promises much; resistivity work has been carried out on selected areas; and aerial photography begun. The 'small sites' are now a major project of large-scale excavation and survey.

BEACHVIEW: Studio Site (HY 24712752) (See Fig. 2.)

Excavations took place on this site in March/April 1978 for a period of three weeks. The aim was to investigate a wall discovered in 1976 and its surroundings. Below topsoil was a thick spread of sand which covered both the 1976 wall and the remains of perhaps two structures. Stratigraphically the wall (or at least its western section)

1. (For previous report, see University of Durham, *Archaeological Reports for 1977*, Durham 1978, 24–5, and *Discovery and Excavation in Scotland 1977*, 26.)

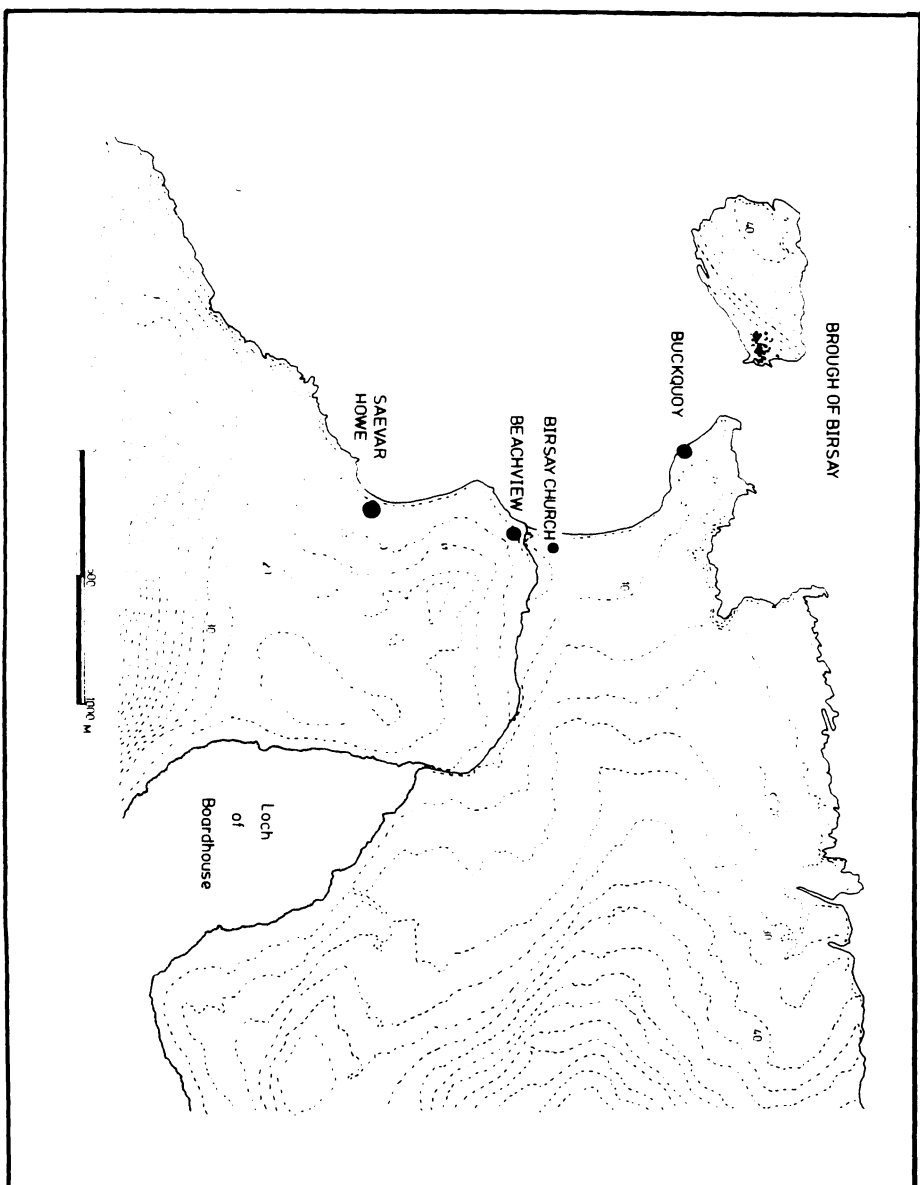


Figure 1

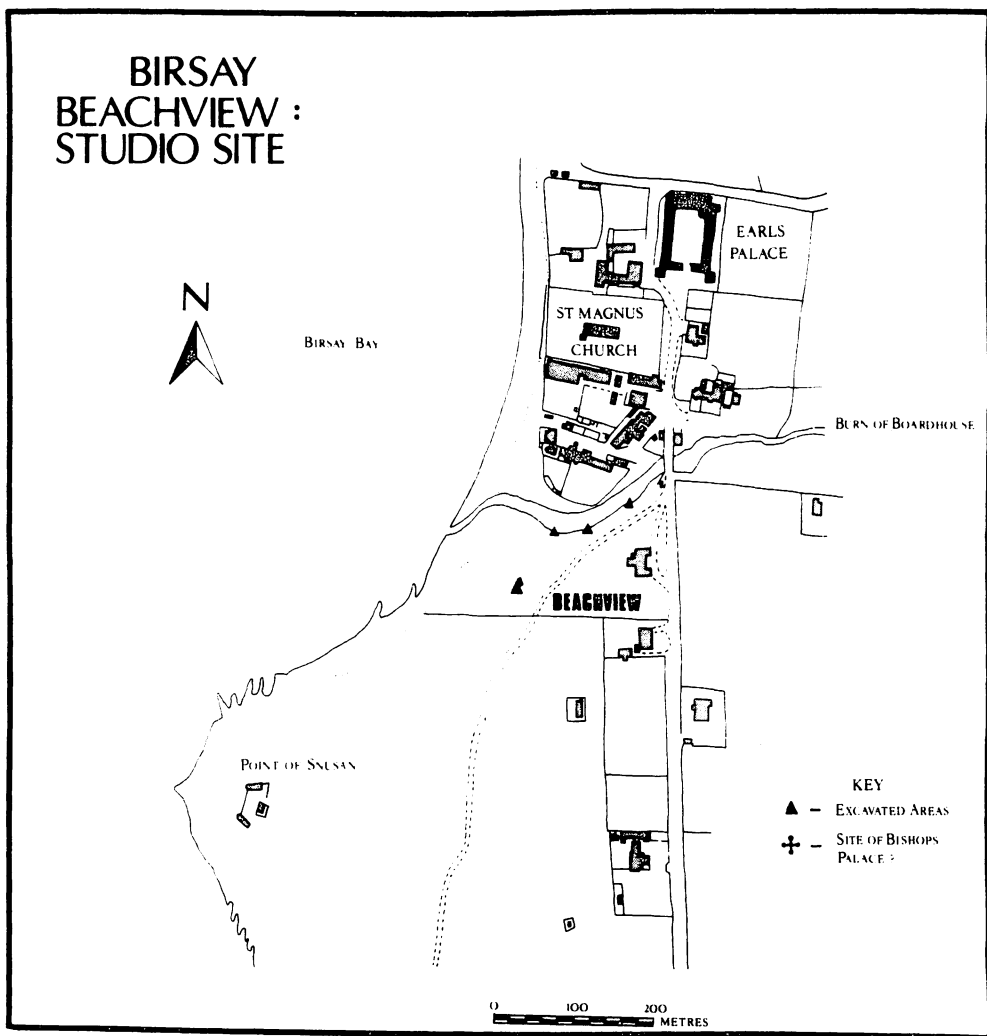


Figure 2

was later in date than one of the structures, but the relationship between the two structures themselves is not yet clear, and excavation will continue in 1979.

The 1976 wall was discovered to be of irregular construction suggesting perhaps five phases. To the south of the wall was a thick bank of sand deposits for which the wall may have served as a revetment, while, to the north, the sand was found to overlie a dark grey-brown sand, which, from the amount of shell and bone, along with a few corroded iron nails, would suggest a midden. Associated with this deposit were four small dumps of burnt clay-peat which were sampled for dating purposes. The presence of thin lenses of clean sand indicated that the site had been used as a waste dump over an extended period, and the angle of tipping suggested that the midden material was filling into an extensive depression. A patch of burnt clay and charcoal, overlying yet another clean sand lens indicated that the lower limit of excavation in this area was arbitrary.

The main sand spread over the site covered the rectangular corner of a structure, against the south wall of which was attached an internal stone bench. Further to the north was the slightly curved inner face of a wall, at first thought to be related to it, but on excavation apparently not. Traces of a possible wall core, indicated by a slightly clayier sand, were found, but no outer wall face has yet been located, possibly due to sloping ground below. Close up against the internal face of the curved wall was a spread of stones, including a firmly positioned upright slab which might possibly indicate the facing of a bench, against the wall. Two deposits of a dark grey-brown sand which spread up, externally, against the wall-core at the north, produced quantities of slag and clinker, along with a cone of lead.

The hollow between the two sections of walling was filled with layers of brown sand, which contained flecks of charcoal and a number of fragments of burnt clay, some of which may be the remains of moulds. The sand overlay a mass of collapsed stones which had fallen, presumably from the south wall, onto the bench and a layer of greyish-brown sand flecked with charcoal, which again produced burnt clay lumps. Clearly the end of excavation was at an intermediate

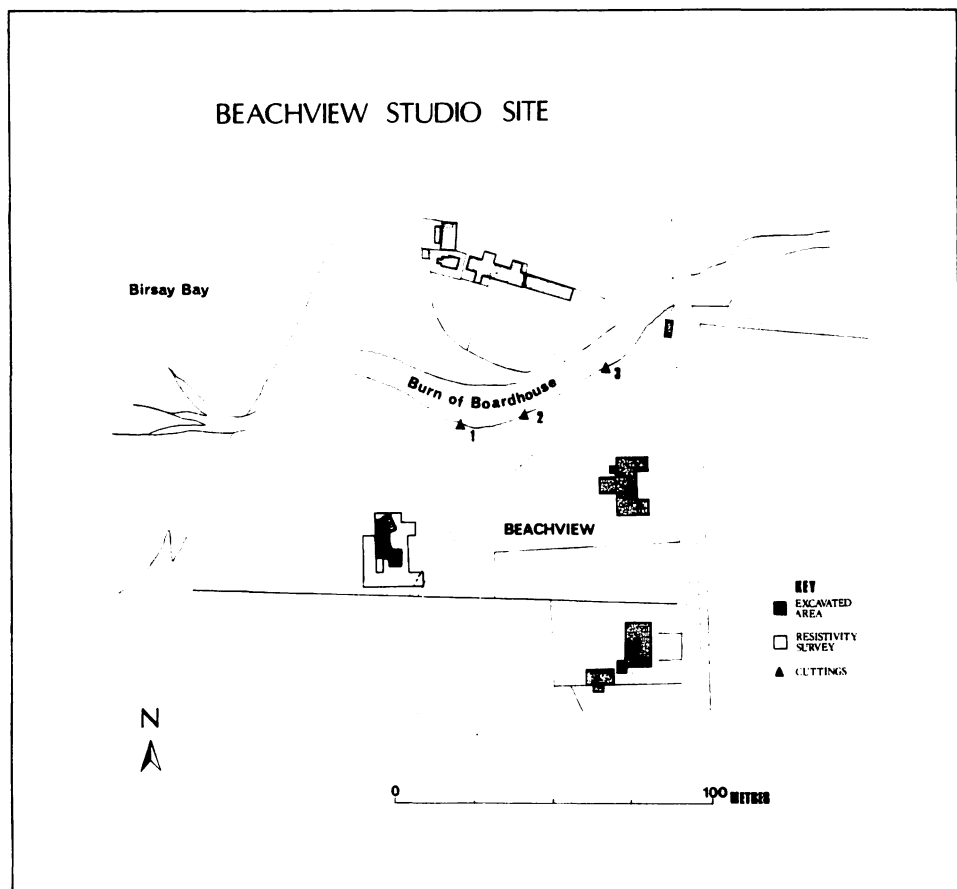


Figure 3

stage in the history of this structure.

BEACHVIEW: Burn-side (HY 24722758) (See Fig. 3.)

Three cuttings were made on the south bank of the Burn of Boardhouse at Beachview, approximately 30–40 metres north-east of the area excavation on the Studio site, to examine features revealed in winter flooding.

Cutting 1: revealed a line of stones which overlay very modern material and were thus clearly displaced from further upstream.

Cutting 2: further east, was dug to examine a mass of stone protruding from the bank. Two walls, running into the bank-side, resting on bedrock and natural clay, were revealed. The space between them was filled with rubble, loam, and sand; above were flat slabs suggesting an entrance-way. At a higher level, a band of stones, perhaps related to a second structure, seemed to have collapsed over bands of sand and loam sinking over the lower structure. No dating material was recovered from Cutting 2, and work was limited to clearing and recording the area revealed by flooding. A stone revetment was built as a temporary protection pending initial excavation, hopefully in 1979.

Cutting 3: consisted of cleaning and a photographic record of a number of features of burnt clay areas and lines of stones revealed in the bank a few metres south-west of the bridge.

The depth of deposits revealed at this site by the flooding and later recording of Cuttings 2 and 3 was unexpected, and indicates that the 'Studio site' (itself below a mound, now partially removed) is but the latest phase of a large and potentially important multi-period site. Inevitably, comparisons might be made with the sequence at the Broch of Gurness, or, nearer to hand, that at Saear Howe, approximately 800 metres to the south (excavated partially by J. Hedges in 1977), but without further work, this is merely speculation.

BROUGH ROAD (See Fig. 4.)

The excavation of sites in this area was begun in 1976, with four

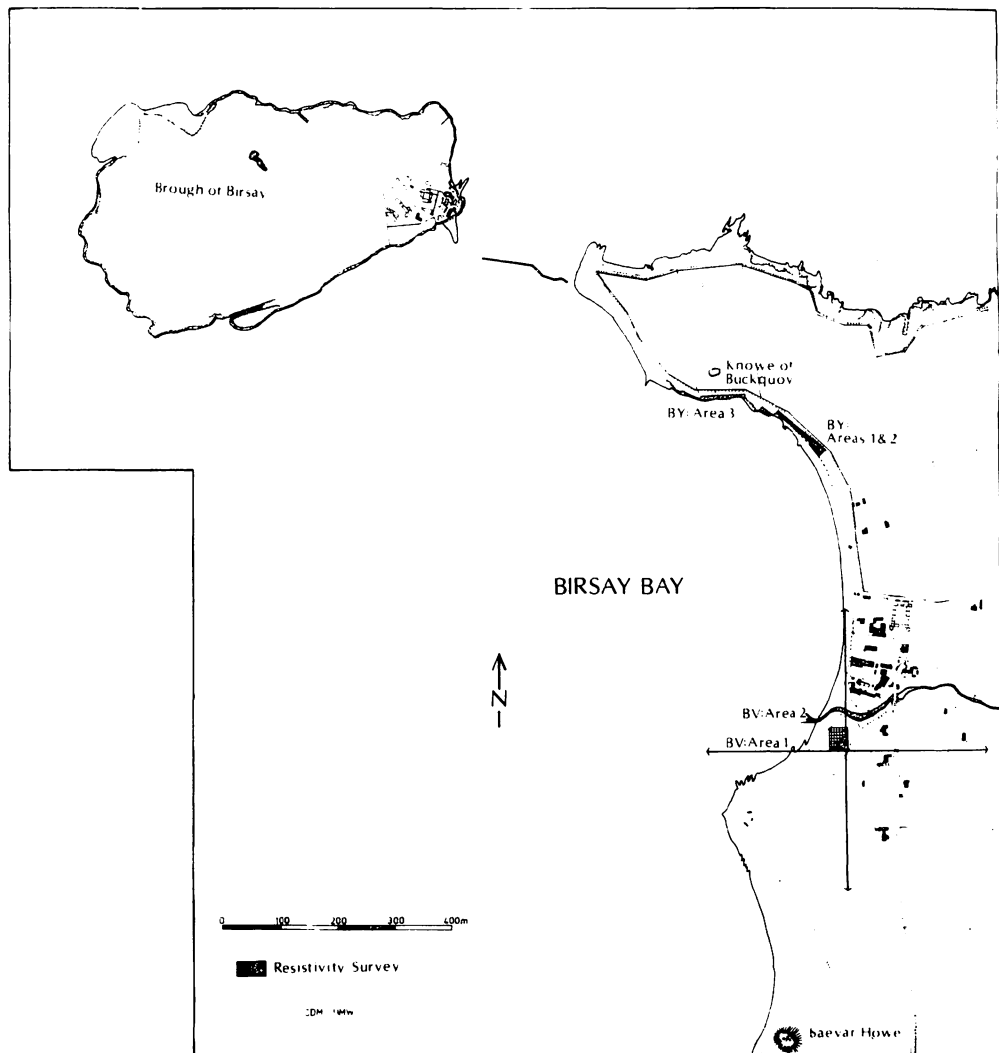


Figure 4

exceedingly small salvage excavations of features revealed by winter storms (Cuttings 1, 2, 3 & 4), and recording of other features.

Area 1 (HY 24672806)

Cutting 1 in 1976 showed the presence of a north-south cist-grave in the face of the cliff. Further work took place at Easter 1978 when a trench 6 metres long by 2 metres wide was placed adjacent to the area of the cist-grave in order to establish whether or not it was part of a larger cemetery. The work done on it then showed no further cist-graves, but, below sand-layers, parts of two circular stone structures. One, already partially lost to the sea, was overlain, possibly coincidentally, by a skeleton lying on an east-west axis. No grave-goods or coffin remained. The second was clearly a segment of a rubble-filled and well-constructed circular structure.

It was decided therefore to extend the excavation area in the summer of 1978 to take in a larger area around these structures. The excavated area was 11 metres long by 5 metres wide. Beneath the sub-soils and sands of this extended area, the two circular stone structures were found to rest on natural sand and underlie a thick deposit of midden. The relationship of the first circular structure and the original cist-grave was not established with any certainty because the hurricane in September tore away the whole of one side of the excavation area, including this structure. However, it was thought, on the basis of their relative levels, that this structure was contemporary with the second, and that, as the structure which was destroyed had partially encircled the original cist-grave, that these were also related with each other.

A thick layer of wind-blown (or sea-deposited) sand lay under the midden and up against the second stone structure. After removal of this sand, the structure was then quadrant-ed, and totally excavated. Lying centrally beneath it was a single skeleton on a NNW—SSE orientation. Unfortunately, no grave goods were present. It was apparent that the body had been placed into the natural sand, and then a mound of sand placed over the body, upon which the circular structure was erected. Throughout the excavation of this area, all deposits were seen to be (with the exception of the midden) sand or sand-based, and this raised the problem of the recognition of layer

distinctions within the same. The skeleton itself, for instance, was apparently stratigraphically separated from the mound that was associated with it by a thick deposit of sand which could not be clearly distinguished from the sand around it.

This second circular structure undoubtedly pre-dated the midden deposit. This horizon contained much shell and bone, some metal, and showed traces of burning and burnt peat. Environmental samples were collected. Cutting into the midden was a very rough and ready cist-grave orientated east-west. Midden material also overlay the capping stones of the grave, and it would seem therefore that the body was laid to rest whilst the midden was actually still in use. Lying with the body were four pieces of metal (one of which could be a knife), and a complete bone comb, hog-backed in shape with incised line decoration, of Viking date. It was difficult to ascertain where the grave-goods had originally been placed as the grave had been much disturbed by rabbit-burrowing (The slabs surrounding the body were broken, and had moved; the bone comb itself was found lying within the lower jaw).

Area 2 (HY 24662808)

This area was situated to the north-west of Area 1, being an area excavation of midden deposits revealed in the cliff-section in 1976 (Cutting 2). Ultimately, Areas 1 and 2 were contiguous. At Easter 1978, this section was drawn, and remains of one grave (with a knife) salvaged; in the summer, an area was opened to investigate the deposits, 19 metres long. The excavation was restricted in width due to the danger not only to the excavators on the cliff-edge, but also to the road. Government regulations concerning depths and angles of excavation were followed closely, in addition to the recommendations concerning safety equipment and scaffolding. The width of excavation varied from less than one metre to four metres, depending on the degree of erosion already experienced.

Turf overlay two main sandy deposits with pebbles and shells, which were the main covering layers over a horizon of sandy soil, unusually grey-brown in colour, which formed a large midden spread, clearly related to that in Area 1. The upper layers produced not only shells and fish bones, but also a number of antler fragments. Rabbit

activity throughout this soft, sandy material had caused some disturbance, but slight colour changes were noted, suggesting different dumps of material. In the western part of the area, a large, compact dump of limpet shells was located, forming one of a series of dumps with food waste but very little in the way of actual artefacts. One fragment of bone comb was recovered, with a slightly curved back and ring-and dot decoration, presumably Viking. Associated with the midden, but forming at a lower level, at the eastern end, was a deposit of darker grey-brown sand containing burnt peat. This material, and its sealing layer, were extensively sampled by Alison Donaldson of the Environmental laboratory at Durham University, using wet sieving, flotation, and bulk collection. The work done on site revealed the probable presence of cereal remains in these layers. In terms of artefacts, the peaty layer produced a bronze buckle, and the teeth and plate-fragments of a comb.

The midden and peaty deposits, particularly in the eastern and central areas of the trench, were found to overlie a spread of stones, suggesting a flagged area, some of which in part rested on a bedding of more rectangular stone blocks. Due to its position on the cliff edge, on a thick layer of pure sand overlying the rock, the effects of erosion and rabbit-burrowing had caused both sinkage and tipping of these layers, distorting their position and actual relationship to their original level. Perhaps related to this flagging was a spread of three layers of rough stones in the west section, which had slipped slightly down-slope. This may have been a tip, but also conceivably the edge of a mound. Both the stone spread and the flagstones overlay a sandy layer containing charcoal flecks which produced antler fragments under the east section of the flagging, and a pointed bone implement below the lowest layer of the stone spread. Close to the stone spread were found fragments of long-bone and patellae, probably human.

The excavation of this area was prematurely ended shortly after the 16th September due to the effects of the hurricane. However, enough material had been recovered to indicate the nature of the site, and it is clear from surface indications that it continues to the north-east under the road and into the adjacent field. It is hoped to have the opportunity to continue excavations, since the flagged area is likely to be to one side of a building presumed to be under the road.

Also, the midden can be seen to extend into areas adjacent to the excavation, and Cuttings 3 and 4 in 1976 indicated (as did resistivity work at Easter), that there are more archaeological features extending at least 12 metres in a north-easterly direction. It is hoped to continue excavation in 1979.

Areas 3 and 4 (HY 24432816)

Following the erosion of the cliff area known as Red Craig, immediately south of the Knowe of Buckquoy, walling had been revealed and photographed in 1976. Consequently, a resistivity survey was undertaken in the summer of 1977 and Easter 1978. On the basis of this, a small preliminary excavation was carried out at Easter 1978. The walling was found to consist of two sections of conjoined curving wall which indicated that the remainder of the structure was probably still intact and situated to the north.

Full-scale excavation was undertaken in the summer of 1978 with the aim of revealing the entire structure, and of investigating other geophysical anomalies to east and west. In **Area 3**, some 69 square metres, subsoil, clay and gravel overlay a deposit of sandy yellow clay, which produced a greenish glass bead decorated all over with yellow enamel dots, possibly of Viking date. This clay in part covered the latest levels of collapse of a complete building, with an internal figure-of-eight shape.

The sequences of collapsed rubble within the building were systematically removed, and proved to be of considerable depth. Interestingly, no large collapses of rubble outside the building were found. Amongst the rubble were several groups of stones consisting predominantly of thin, black slabs whose position and angle of deposition suggested that they had fallen from a height, and feasibly from a stone corbelled roof. At one point, the wall stood eight courses high. It was constructed of a stone inner and outer facing, with an infill of earth and small stones, but, while the inner face was neatly coursed, not so much attention had been paid to the outer face which was occasionally jagged and only roughly finished. It appears that the floor in the interior of the building was below the level of the exterior ground surface. Externally the shape of the building was not figure-of-eight, but nearer to oval.

The internal shape provided the basis for two rooms, the eastern approximately 4.5 metres in diameter, and the western one slightly smaller. At the junction of the two rooms, a small section of walling was revealed, with north and south passages connecting the two rooms. This length of walling could well have been structural as well as providing an internal partition between the rooms. The structure was entered through a door in the south-west, 0.7 metres wide, and having a neatly constructed threshold providing a step down into the west room. By the entrance, there is a hint of re-building of the western wall, but, if it had a continuation, it has been lost over the edge of the cliff.

Internally, both rooms had sunken floors, below the foundations of the walls, although there was some banking up of extracted clay against the walls. A line of flagstones set into a hard clay floor led from the entrance in the western room to the centre of it. There were traces of burning near the partition wall here, but otherwise the room was devoid of significant features and finds. In the eastern room, a stone setting was revealed against the east side, below the collapsed rubble. The stones were burned red, as was the inner face of the main wall of the building behind this feature, and they formed a square construction.

The density of burned, squarish stones found overlying the remains of the structure, as well as the material in its collapsed interior, suggested that it was originally a fairly substantial feature, possibly an oven. Contained within the ? oven were three layers of burnt clay over a partially stone-lined base. A less substantial burned feature was located immediately to the north of the ? oven, where the inner face of the main wall was also burned red.

A sequence of organic layers were revealed within this room, underlying several large flagstones, some partially burnt, which were set into a rough clay floor. One of the flagstones was cut to fit round the base of the partition wall, and was resting on one of a line of upright stones. When the flags were removed, the upright stones proved to be the surrounds for a hearth. Burnt material was found within, but also under, the stone setting, and so re-use is clearly attested. The positioning of certain of the stones, and a void against the clay

banking, indicated that at some stage the hearth had been reduced in size. Below the stone setting, burnt peat was found to fill two roughly circular hollows, and the bases of them were also burned red. Organic material found on the edges of the hollows appears to be an unburnt version of the fill. Both burnt and unburnt material contained large quantities of seeds, and environmental samples taken are now being analysed. It is hoped that C14 dates may be obtained for the various phases of burning. Fine loam, filling an unburned depression, with a lead-in channel, is also being analysed, in the Environmental laboratory at Durham.

The objects found in the interior of the building were few in number, but included a fragment of a gaming board, on which rough squares and other symbols were incised. This fragment, along with a number of pieces of flint and iron objects, were discovered in the organic layers near the stone hearth setting in this eastern room.

A tentative pre-Norse (‘Pictish’) date can be suggested for the building, based on its structural points of comparison with the nearby site of Buckquoy (see A. Ritchie in *Scottish Archaeological Forum* 1974), but not enough artefactual evidence was obtained for this to be sustained with confidence at this stage. Independent dating procedures are essential.

To the west of the building, where in 1976 there had appeared to be the end of a second wall, perhaps at right-angles to that in the cliff-edge, limited excavation only was undertaken, and located a possible drain and sump.

Area 4, to the east of Area 3, was opened to examine a large anomaly recorded in the resistivity survey; it was ultimately some 48 square metres, and linked up with Area 3. Below the turf and subsoil, a spread of small stones appeared to represent the cause of the anomaly, and was apparently a dump of relatively modern road-surface material. Below it, clay and gravel overlay the main natural clay, which over the majority of the area produced no archaeological features. However, at the western end of the area, immediately to the east of the building in Area 3, there appeared to be a slight bank of clay, which was surmounted by two rough courses of stone; this

mirrored the basic curve of the eastern wall. No dating evidence for this feature was obtained, and its limits were not ascertained.

It is hoped to carry out further work in 1980 on this area, both to the north under the road, and to the west. In addition to the possible sump and drain in this area, a resistivity survey has recorded anomalies, at present not readily interpretable, but providing a basis for location of archaeological excavation.

Cuttings 5 and 6

Fieldwork located archaeological features on and in the sand-cliffs to the south side of the Point of Buckquoy overlooking the Brough to the west. A preliminary excavation was carried out in the summer of 1978, including the drawing of the cliff-section in two cuttings.

Cutting 5 (HY 24272835) was a sample area of 6 square metres dug to investigate surface features. At least four phases of occupation were identified, the earliest being associated with a midden layer immediately above the glacial scree. This phase was sealed by brown compacted sand from large blocks of green sandstone located in a layer of clean sand. This may be a structure, and underlay a series of deposits associated with another possible structure in the eastern part of the trench. A layer of wind-swept sand separated this from the latest phase of occupation, associated with a wall of nine courses similar in form to the modern boat-nousts in the area.

Cutting 6 (HY 24292834), to the east of Cutting 5, examined archaeological features visible in the cliff-face. A large area of midden, extending east from Cutting 5 and overlying a possible structure situated above a soil profile and the glacial scree, was the major horizon.

119 kg of midden material from both cuttings was collected by James Rackham of the Environmental laboratory at Durham. Preliminary examination of it has revealed that it was essentially a shell-dump, but contained evidence of red deer, dog and Orkney vole. Alison Donaldson has also located carbonised grains of naked barley. On stratigraphical and faunal grounds, this preliminary analysis

suggests that the midden deposit might be part of an early Neolithic settlement below later buildings.

This site was extensively damaged in the hurricane, and work became hazardous due to collapses. No attempt was therefore made to link up by excavation the two cuttings. It is intended to mount an excavation in this area — hopefully in 1979.

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Volunteers are too numerous to list, but were mainly from Durham University, together with individuals from East Anglia, St. Andrews, Berkeley, University of California, Los Angeles, and Stockholm Universities.

Also a small and successful Government Work Experience Scheme (through Mr. C. Fraser and Mr. A McLeod), utilising local labour, was attached to the excavation in the summer for three months.

Appendix: archaeological features observed and/or excavated along Brough Road (See Fig. 5)

1. HY 2429 2840 Part of rectangular building located by Dr. F. T. Wainwright. Two walls at right-angles to

BIRSAV 1978

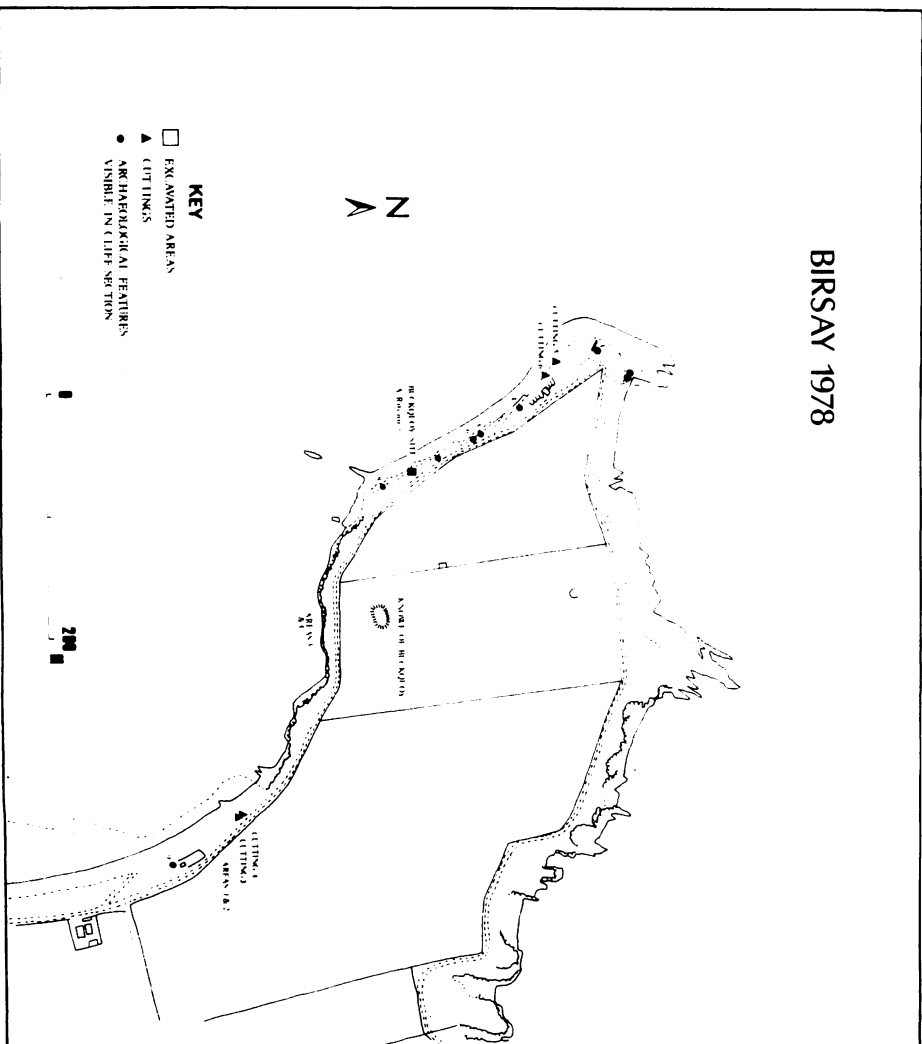


Figure 5

each other are clearly visible, and rubble (presumably collapse) within them.

2. HY 2428 2840 Immediately to west of 1. Large slabs (? building) and associated midden, apparently below and lying on glacial scree.
3. HY 2426 2838 Structural remains unearthed to side of steps to beach below former DoE hut.
- Cutting 5 HY 2427 2835 Excavation 1978: see above.
- Cutting 6 HY 2429 2834 Recording and soil samples 1978: see above.
4. HY 2432 2831 Stones and other features exposed by rabbit-burrowing to North side of slip-way.
5. HY 2434 2828 Spread of horizontal slabs ? building debris.
6. HY 2434 2828 Dump of large rubble to South-east of 5.
7. HY 2435 2825 Line of shells in midden layer.
- BUCKQUOY Site HY 2437 2823 Excavated by Dr. A. Ritchie.
8. HY 2438 2820 Line of stones? wall of building to south-east of Buckquoy site.
- Areas 3 & 4 HY 2443 2816 Excavation 1978: see above.
- Cutting 3 HY 2464 2809 Excavation 1976.
- Cutting 4 HY 2463 2809 Excavation 1976.
- Area 2 HY 2466 2808 Excavation 1978: see above (includes Cutting 2: excavation 1976).
- Area 1 HY 2467 2806 Excavation 1978: see above (includes Cutting 1: excavation 1976).
9. HY 2469 2803 Horizontal slabs, triangular-shaped drain, human bone & building debris below plantekruse, to south-east of Area 1. Observed in 1976, and much eroded, exposed and extended by effect of hurricane, September 1978.