
INTRODUCTION

The excavation at Howe, by Stromness, in Orkney (NGR HY 276109), funded by the then Scottish Development Department (Historic Buildings and Monuments Directorate), now Historic Scotland, was one of the largest and most costly excavations to have been undertaken in Scotland at the time. It began with a short season in 1978 and was completed, after a further four six-month seasons, in 1982. It provided a hitherto unparalleled opportunity to fully excavate the extensive and complex remains of a broch settlement and thereby more fully examine and understand the stages of evolution from roundhouse to massive complex roundhouse, or broch. The ensuing discovery of the earlier Neolithic structures and enclosed early Iron Age settlements added further layers of importance to this rich and complex site.

1.1 • THE HISTORY AND SETTING OF HOWE

RECENT HISTORY OF THE SITE

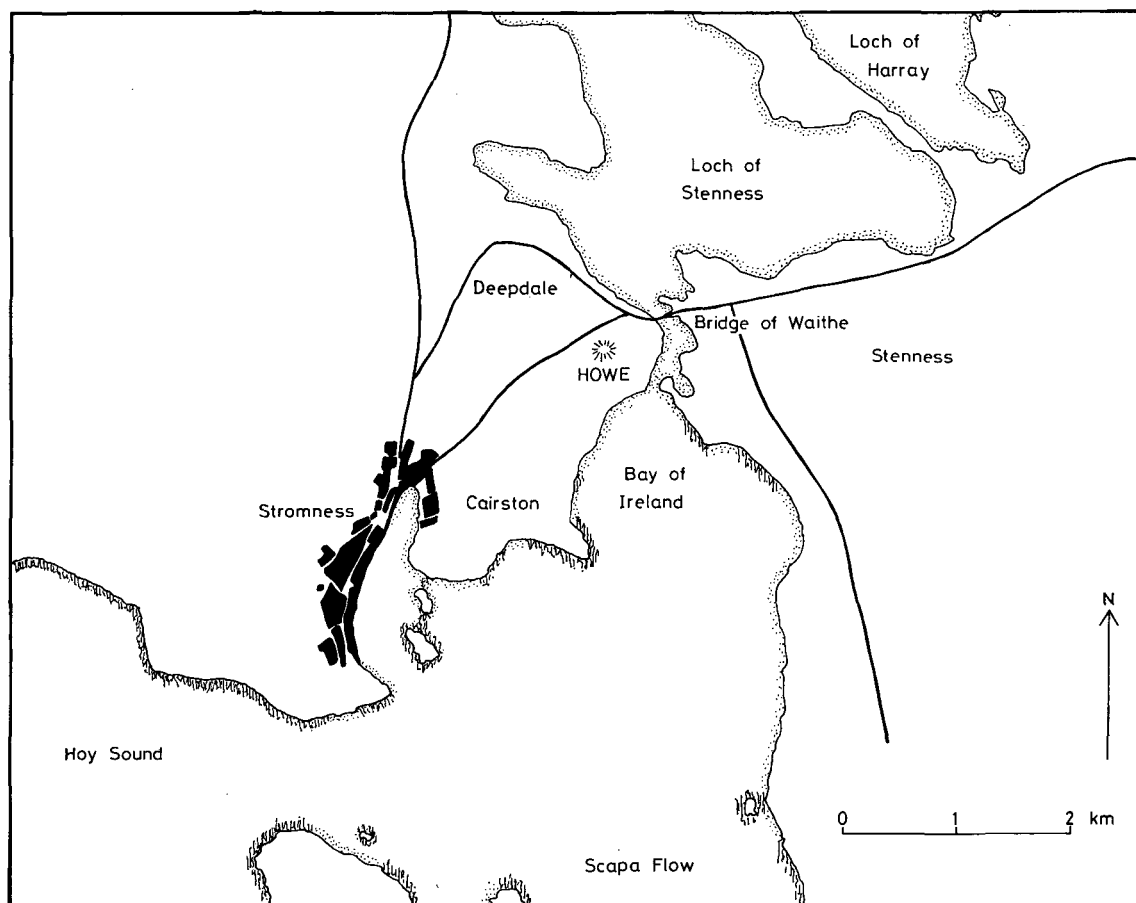
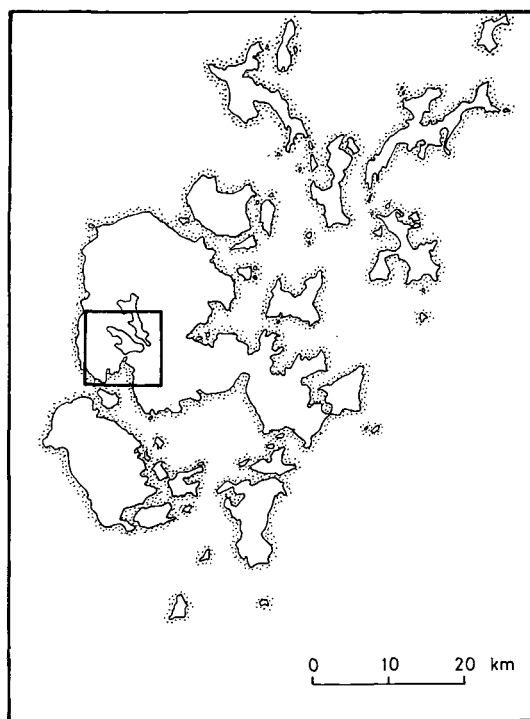
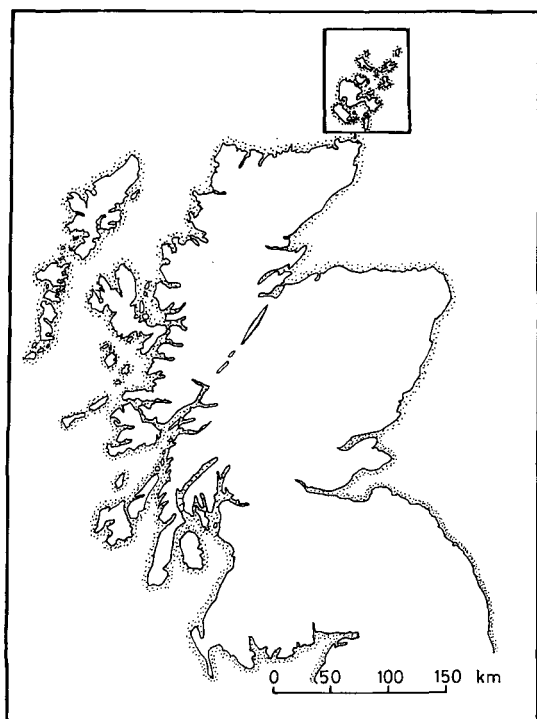
Prior to the beginning of the excavation in 1978, the site was identified as a probable broch in the parish of Stromness (RCAHMS 1946) (illus 1). It was known to have stone walls 'laid out on a definite plan' and had produced evidence of burnt material. Structural evidence from within the mound had been brought to light about the mid 19th century, when it is presumed that the then owner of the Cairston Estate, Dr or Reverend JH Pollexfen MA of Middleton Tyas, Richmond in Yorkshire, investigated the mound. Much of the disturbance of upper levels of the site (6: Phase 9 below) is attributed to him. In 1888, the Reverend Pollexfen donated the finds from the diggings to the Society of Antiquaries of Scotland (1889, 238); these are described in this volume as finds of the 19th Century (8.11 below).

In 1880 the Orkney Name Book (22, Stromness) described the Howe Brough as a 'supposed Picts House', but suggested there had not been a deep enough excavation to determine the exact nature of the site. Although evidence survived on the top of the site of 'diggings' earlier this century, the mound essentially remained untouched and indeterminate until the late 1970s when the present excavations were carried out.

HOWE IN ITS NATURAL SETTING

The hillock, or *howe*, of Howe was located in the SW of mainland Orkney (illus 1, 2), in pasture land belonging to the present day farm of Howe. It lies in the Cairston area, in the east part of Stromness parish. The mound was situated at approximately 28m OD on a hillside which gently sloped to the Bay of Ireland half a kilometre to the southeast, and to the Loch of Stenness, the same distance to the north. The Loch of Stenness flows into the Bay of Ireland via the Bridge of Waithe and The Bush and access is then made possible through Hoy Sound to the Atlantic in the west. Access is also possible to the North Sea to the southeast through Scapa Flow. West and northwest of the site, the hillside rises to between 54–65m, but open views are possible to the island of Hoy to the southwest and south, to the west entrance of Scapa Flow, the Orphir Hills to the southeast and east, and to the central, north and northeast areas of the Mainland of Orkney.

The solid geology of this part of Orkney is predominantly composed of the sedimentary derived Stromness Flags which form the lower group of the Middle Old Red Sandstone series. To the W, c 3km away, is a variation in the geology, where metamorphic rocks of the Basement Complex come to the surface as granite (Mykura 1976). An intrusive dyke of camptonite can also be found on the coast, to the immediate S of Howe (Inst Geol Sci map Kirkwall 119 D). The local geology can be seen as low cliffs to the S and SE of Howe bordering the Bay of Ireland, and exposed along the edges of the Loch of Stenness. The sandstones are covered with glacial drift, noticeably grey-brown boulder-clays in the vicinity of Howe, which form a deep till of 50–100cm.



Illus 1
The location of Howe.

The soils formed on top of the till are part of the Thurso Association and are described as noncalcareous gleys, brown forest soils and brown rankers (Macaulay Institute for Soil Research, Soil Survey of Scotland 1982, Sheet 1). Their present day land capability for agriculture is described as primarily for grassland, with the possibility of occasional cereal crops, depending on the climate, especially the degree of moisture.

Climatic factors, in particular the wind and rain, continually dictate activities in Orkney. The area around Howe can receive 1000–1100mm of rain annually, and the yearly number of gales can average up to 30, mainly from the W through to the SW, and from easterly directions (Soil Survey of Scotland 1982, 9). The low temperatures with a mean annual average of 7.7°C, combined with the precipitation, produce high humidity and low evaporation rates. In the middle of winter, hours of sunshine rarely exceed six, but these negative aspects of the climate are offset by the prolonged daylight hours in the summer months, little variation in daily temperature, and few days of frost or prolonged snow. The maritime situation of Orkney dictates the climate, which has been described as ‘hyperoceanic’ (Berry 1985, 18).

The climate, including salt-laden winds from the Atlantic, has been of considerable influence in hindering the natural regeneration of trees since prehistoric times and none exist in the area around Howe. Natural vegetation is confined to the local cliffs, loch edges, and to the upper parts of neighbouring hills where maritime and heathland communities exist. The land immediately surrounding Howe is under grass with occasional barley in adjoining fields.

The land-based habitats surrounding Howe support very few varieties of terrestrial animals, and of these only mice, shrews, and possibly the Orkney Vole are considered native. The status of the latter is debatable as it may have been introduced into Orkney in the Neolithic period. Other animals have been introduced more recently into the island group and do not affect the Iron Age assemblages of mammal bone at Howe, unless as intrusive species. The grassland around Howe supports both dairy cattle and sheep, and the mound itself carried nesting starlings, Orkney Vole and field/wood mice and the occasional rabbit.

In contrast, the marine habitats of both salt and fresh water offer more varied species which would have been available to the inhabitants of Howe. These include otter, grey and common seals, fish, mollusca, and passing whales. Birds from a variety of environments, although some from habitats modified over the millennia, must also be considered as part of the natural setting, and as a resource available in the past.

1.2 • THE EXCAVATION

The history of the excavation began in 1978 when the present landowner and farmer, Mr Bertie Reid of Howe Farm, declared his intention, to the Inspectorate of Ancient Monuments, to level the mound, for reasons of agricultural improvement, in 1981. Consequently, in the late summer of 1978, not long after the completion his investigation of Bu Broch, John W Hedges began the first season of excavation at Howe.

EXCAVATION METHODS

The rescue excavation undertaken at Howe, from the first investigation in 1978 to the final season of 1982, was funded almost entirely by Historic Scotland (then SDD – Historic Buildings and Monuments Directorate). Preliminary work on the site consisted of a contour survey of the mound (illus 3a), the laying out of a grid system along site N and initial photographic coverage. It was not possible for any prior field walking as the site and the field in which it lay were under grass, grazed by cattle (illus 2).

Four trenches, each 2m wide were laid out N–S in a line over the mound, to later form one of the main sections of the site (illus 3a; 164). The trenches were designated A to D, from S to N, and were later expanded to the E. It was at this point that areas of deep ploughing around the base of the mound were first noted. In 1979, the first of the six-month long seasons, the area opened on the mound was extended, with trenches E to H added to form an open excavation. Baulks between trenches were continuously dismantled during various stages of the first season of excavation. Trench A was excavated as a pilot trench to determine the type of features to be found on the mound, and as a guide to the excavation of the other trenches.



Illus 2

The mound at Howe before excavation; from W.

In 1980 trenches J and K were opened. During this middle season it became clear that the rigid trenches established from 1978 were not workable as the excavation progressed downwards and came in contact with buildings which crossed the trench boundaries. Firstly, Trenches B, C and D over the top of the broch tower were redefined as trench Z. This new trench took in not only the interior of the tower but also its walls. Trenches G, A and H across the front of the broch were amalgamated as the S Area, which later took in B, F and K, and the whole was excavated as an open area. This was also extended S, parallel to the old trench A as trench X. During 1980 the E area between trenches H and J was opened as trench M, and the N parts of the mound were excavated as trench R. During the final seasons of excavation up to and including 1982, small extensions were made to trenches to test the extent of various features, mainly defences, and these occurred in trenches J, X, K and R. The total area excavated was *c* 1436sq metres.

At the end of the 1981 season supplementary funding was requested to excavate fully the sequence of Neolithic remains which had become exposed with the removal of Iron Age features. Unfortunately, no further funding could be obtained as the original strategy of the excavation was concerned only with Iron Age structures. In the final excavation season, the Neolithic structures only were revealed and very few securely stratified contemporary deposits were completely excavated (2.1 below).

The major proportion of the site was excavated totally by hand; only in the opening up of trench R over the defences in the N part of the site was any mechanical help used. From 1981 onwards various elevated barrow runs of scaffolding and planks were used to aid the excavation of areas of the site where access was difficult because of depth. High-sided trailers were positioned at the end of the scaffolding runs, mainly for large stone, which was taken away by the farmer, for purposes of infilling. Otherwise, stone and small rubble were removed to a heap to the SW of the excavation.

RECORDING SYSTEMS

The site code for Howe was HH, for *the Howe of Howe*, plus the year of excavation, and this is to be found not only in all the site registers but on all the artefacts and samples. The recording of the excavation was organized on the context basis within a given trench or area. The recording procedure was kept as simple but as thorough as possible. Registers with context sheet descriptions were kept for each trench or area and a separate register for the compilation of the total number of contexts and their descriptions was also kept, of which there were 2080.

Small finds, numbering 7882 (given their SF prefix in this text), including samples and individual artefacts, were recorded with all relevant details in a consecutive sequence of numbers in a small finds register. Every small find was also allocated a small find card, compiled from the register to allow for post-excavation data and analysis. Another register was used for soil samples; although initially recorded as small finds, the recording of their processing was kept separate. On average 2×2 kg of sample was usually taken from non-stone contexts which was processed under laboratory conditions.

Another register was also kept for all plans and sections drawn on the site. This included a description of the drawing and its co-ordinates, and other relevant details. Plans were predominantly drawn at a scale of 1:20 with detailed drawings of features at 1:10. All sections were drawn at a scale of 1:10 including the main N-S and E-W ones (illus 164), which were recorded as running sections (dismantled with the procedure of the excavation). In all, there were 470 drawings.

At the start of the excavation in 1978, two separate registers were kept for the recording of black and white and colour photographs, but later these were amalgamated. Photographs were taken on two manual 35mm cameras and number *c* 7400. For the first two years of excavation photogrammetry was tried at the site, to help in the identification of walls and features in the difficult conditions of the upper levels. By 1980 photogrammetry was discontinued because it had become too dangerous due to the verticality of some parts of the excavation. Overall pictures of selected or large parts of the site were taken from the top of an *c* 5m high scaffolding tower which was usually kept beyond the trench edges.

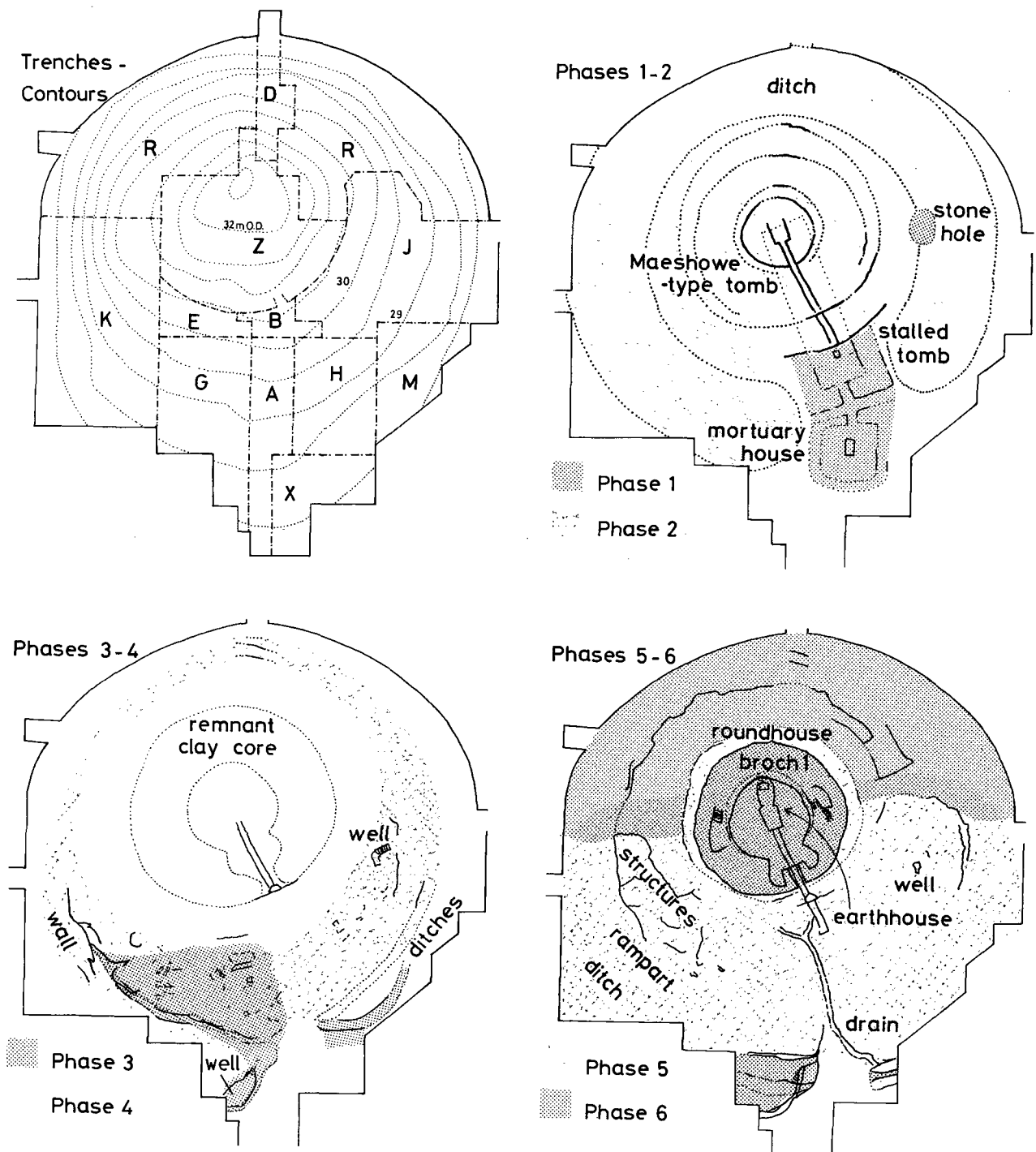
At the end of the first two seasons of excavation detailed interim reports on the trenches dug were written and drawn up during the winter months. These also included detailed trench matrices and the beginnings of the phasing for the site. These reports were termed 'Blue Books' and form part of the site archive. In all, 6 were produced, for trenches A & H; D; G & F; Z; K; J, B & M. All except for D and Z were concerned with Phase 8 structures, especially those of later Phase 8 and Phase 9. This detailed information on the Phase 8 structures formed the basis for the understanding of their extremely complicated stratigraphy and phasing.

In a pre-computer age the recording methods developed and initiated by JW Hedges were adaptable, highly successful and efficient, and enabled sufficient cross-linking so that contexts and finds did not become lost in the system. All the site records, the archive, mentioned above are kept in the National Monuments Record (Scotland) in Edinburgh, with the exception of small finds records cards. These, together with all the finds and some copies of the register and specialist archives, are held in Tankerness House Museum, Kirkwall in Orkney. Howe finds are accessioned from the number 1982.202 HH.

1.3 • THE REPORT

THE CHRONOLOGICAL PHASING OF THE SITE

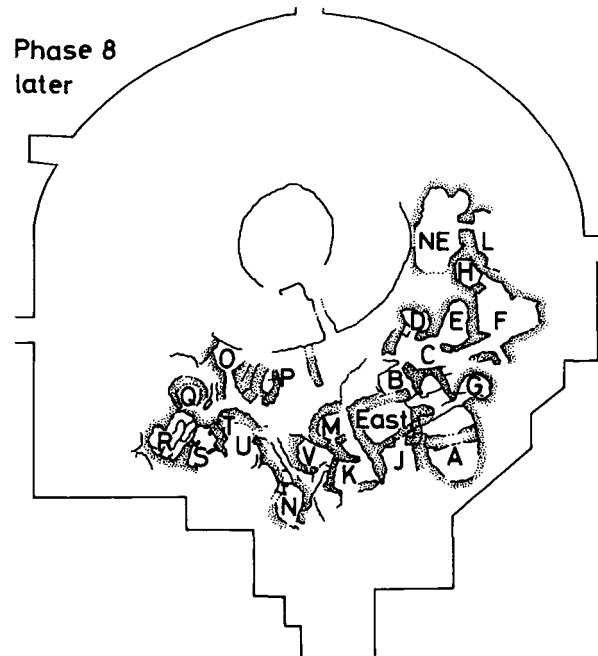
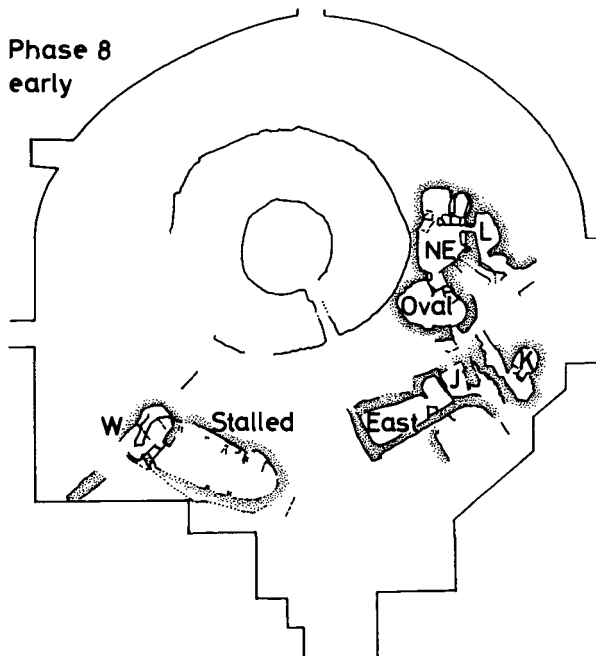
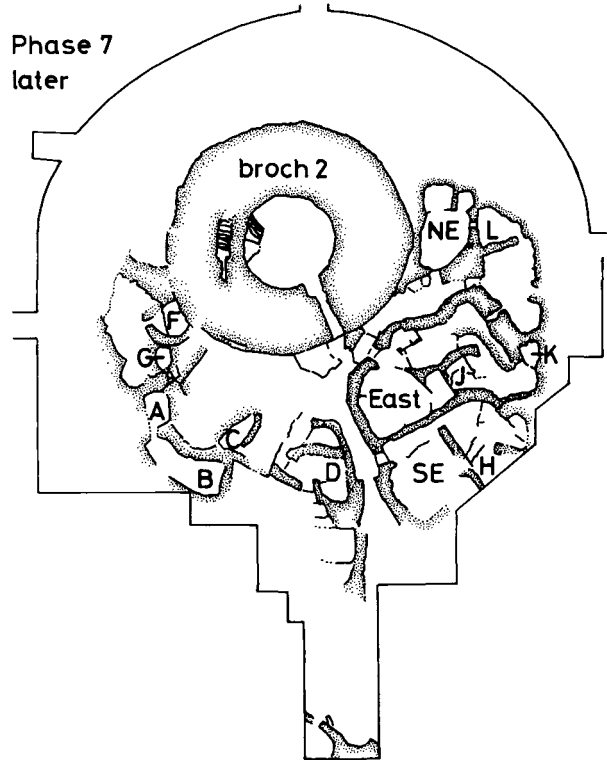
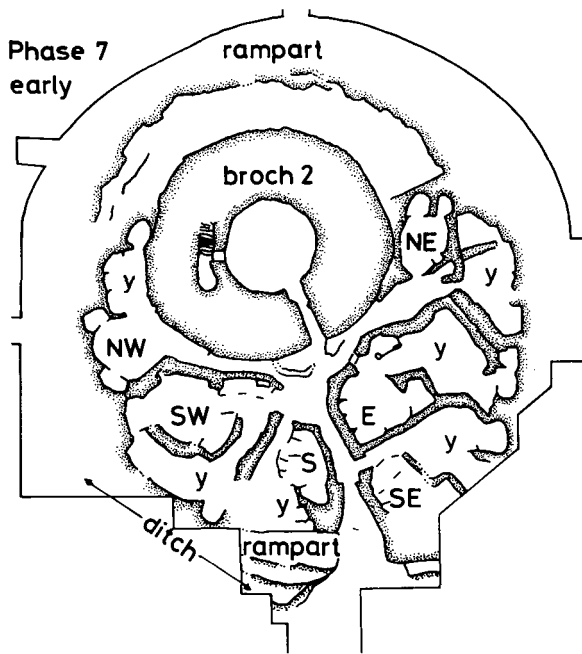
The site phasing, fully established during the post-excavation process, was based on the major building and destruction events of the site. Eight major phases were established with a ninth encompassing recent and unphaseable contexts. Where possible, the phases were ascribed chronological brackets derived from the calibrated series of radiocarbon dates produced for the site; these are discussed in detail in Chapter 10 (below). Throughout the body of this report the dates are quoted in the 1σ 68% level of confidence used in the processing of the dates. The discussion chapter (11 below) looks at some of the modification of the chronology that interim work has produced.



Illus 3

Site key logos showing a) trench layout and contours; b) Phases 1 and 2; c) Phases 3 and 4; d) Phases 5 and 6;

The report presents the phases in their chronological order rather than order of excavation. It begins with the earliest levels, a sequence of fragmentary Neolithic structures, Phases 1 and 2. (illus 3b). No radiocarbon dating was possible for these levels and their attribution to the Neolithic is based on the incorporation of material of Neolithic type and the nature of the structures indicating tomb types and ancillary structures which compare with others of the period on Orkney. These indicate that earliest occupation of the site must go back well into the 4th millennium BC (Davidson & Henshall 1989, 87–8). The existence of sherds of Beaker pottery suggest some activity, probably around the turn of the second millennium cal BC; but no Bronze Age phase as such



e) Early Phase 7; f) Later Phase 7; g) Early Phase 8; h) Later Phase 8.

could be identified. Occupation resumes in Phases 3 to 4 (illus 3c), attributed by radiocarbon dating to the Early Iron Age, 8th–4th centuries cal BC. Phase 5 (illus 3d) covers the period of the first of three major Iron Age structural complexes on the site, the roundhouse, which has been given brackets of occupation somewhere between the 4th and 3rd centuries cal BC. There was no direct radiocarbon dating evidence for the succeeding Phase 6, the period of the first broch which overlay the roundhouse (illus 3d); extrapolation from the putative end of Phase 5 and the earliest dates for the subsequent phase 7 broch put its construction and occupation somewhere in the 2nd and 1st centuries cal BC.

Phase 7 represents a major part of the information from the site as it was the most massive and best preserved of the structural complexes on the site, overlying, and partially destroying, the earlier period evidence. Again, brackets only can be given to the phase, 1st to 4th centuries cal AD, covering a number of periods of collapse and rebuilding. This major phase has consequently been divided into Early and Late (illus 3e–f), the earlier referring to the construction and use of the Phase 7 settlement and its subsequent levelling and the later to the continued use of some structures, and the building of new, up to the last major collapse of the broch tower.

The subsequent Phase 8, the period of the settlement characterised as the farmstead, covers a period of 4th to 7th or 8th, if not 9th, centuries cal AD. It is also sub-divided initially into Early and Late (illus 3g–h), and then into a further 12 Stages. Early Phase 8 covers stages 1 to 4, and later Phase 8 stages 5 to 12. These stages represent the finer distinctions between episodes of rebuilding and relocation amongst the complicated late Iron Age structures.

THE STRUCTURE OF THE REPORT

Much of the detailed working out of the site story will not be found in this volume; original context numbers do not appear in the text or on the published plans but can be consulted in the archive if such detail is required. A phased layer list appears in microfiche (1:A3–B14), but the matrices have been archived because of their sheer volume and size. Detailed catalogues of finds or samples either appear in microfiche (see Microfiche contents list above) or are archived. ‘Key logo’ plans, simplified plans based on the phasing of the site as shown in illustration 3, have been included on the detailed site plans to direct the reader to the location of areas and buildings under discussion and show their relationship to the settlement mound. They also form introductory plans to the later complex phases of the site. The N arrow which appears on all plans, refers to site grid N which lay *c* WNW of Ordnance Survey Grid North.

During the twelve years of preparation of this report many of the specialist reports have been reorganized and rewritten. This was done not only to update information, but to standardize the use of the site phasing and its terminology, and the presentation of information in the light of this. The specialist reports have been divided primarily into two sections – the environmental evidence (Chapter 7) and the material culture (Chapter 8). Both sections are preceded by an introduction (7.1; 8.1) summarising the results of the specialist analysis. By this means, it is hoped that the important results gained from the site, will be both accessible and clearly demonstrable.

Within this publication, all small finds (SF) or samples are referred to by their original numbers; finds illustrations have not been given a separate numerical sequence. The retention of the original SF numbers throughout is intended to avoid complications and ambiguities when dealing with such a large mass of material: the archive, finds catalogues, this report and the finds themselves, thereby retain their unbroken connections.

TERMINOLOGY

Some stratigraphy lay between two phases or covered a time scale of more than one phase, and these have been referred to respectively in the following way: Phase 5/6 or Phase 4–6. However, these complications only cover either single or small groups of contexts.

During the excavation many of the early Phase 7 buildings were referred to by a letter denoting their direction, for example the ‘**SW** building’, or later by an adjective such as ‘**oval**’ or ‘**stalled**’. This method of reference has been maintained in the structures reports and extended where possible. From late Phase 7 and to the end of early Phase 8, buildings or single rooms within buildings, have been described using the letters **A** to **L**. This type of nomenclature was repeated from stage 5 of late Phase 8 because of the number of units, with the letters **A** to **V**. The late unphased structures of Phase 9 are similarly, but separately from the previous phases, accorded the letters **A** to **J**.

More generally, the terminology for the developmental stages of the substantial Iron Age structures is expressed in the form used throughout the excavation and post-excavation work: roundhouse (Phase 5), Broch 1 (Phase 6) and Broch 2 (Phase 7). The need to redefine terms to avoid the historical inferences

which the use of *broch* implies are noted in the discussion (11.1) below, but a substitution of newly established categories at this stage was felt to further complicate rather than aid understanding of the sequence.

The term 'Pictish', as belonging to the historical Pictish kingdom is not used in the main body of this report, neither is the word 'pictish' as denoting any cultural similarities with the Pictish kingdom. All Phase 8 occupation, ie that occurring from approximately the 4th century AD, is described as late Iron Age, thus stressing the similarities of, and gradual change in, structural and cultural attributes from the preceding Iron Age Phases. The wider picture of the place of Orkney within the Pictish Kingdom has been discussed by Ritchie (1985) and Thomson (1987).

Every attempt has been made to avoid confusion in site and placenames. The form of names used follows current usage where possible thus Maeshowe (not Maes Howe) Borwick (not Borthwick) but Skara Brae is retained in its most recognisable form although the single form Skarabrae is the preferred Orkney usage. Likewise 'earthhouse' is employed rather than 'souterrain'. Although Howe itself can be found referred to as 'The Howe' (Davidson and Henshall 1989, 176–7), following the original site name of 'The Howe of Howe', the short version 'Howe' is now most commonly employed and is used throughout this volume.

