Building Mounds: Viking-Late Norse Settlement in the North Atlantic c. AD800-1200

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Thesis submitted for DPhil in Archaeology

A settlement mound in Deerness, Orkney, looking south-east, showing the mound and its commanding views across land and sea

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Jane Harrison, Kellogg College, DPhil in Archaeology (submitted Trinity term 2016)

Abstract

The subject of this study is Viking-Late Norse settlement (c. AD800-1200) in the North Atlantic, focusing on Orkney and on longhouse complexes constructed on mounds. For the first time these mound settlements are investigated as a group and as deliberately constructed mounds. Settlement mounds in Orkney are also closely associated with nearly 40 Skaill ON *skáli* ('hall') place-names, which place-names linked the sites with the social and economic networks of Orkney's peripatetic leaders. This association is examined more closely. The analysis also demonstrates that constructing settlements on mounds required particular building techniques, which relied heavily on the use of midden-type material. Those techniques are examined using new and freshly analysed material from published and grey literature-published excavations and surveys of sites from the Viking-Late Norse period in Orkney and elsewhere. Three core data-sets were established to provide the evidential basis: the first, also drawing on site-visits, looking broadly at mound landscapes and *skáli*-areas in Orkney; the second at the building techniques and materials used on settlement mounds; and the third, also requiring site-visits, at all the *skáli* place-name sites. The possible origins of settlement mound living in the settlers' Scandinavian homelands are investigated, then the extent to which mound living was also followed in Shetland, Caithness and the Western Isles, and finally in previously unoccupied lands, using Iceland as a case study.

The mound-sites, their archaeology, mound architecture, place-names and landscape setting are also analysed in a new theoretical framework to reach fresh understandings of Viking-Late Norse settlement in Orkney. The analysis thus considers the wider cultural significance of constructing and living on settlement mounds, and what that communicated about Viking-Late Norse society. The thesis argues that Viking-Late Norse groups chose prominently-placed sites for their visual dominance and commanding views, but also that the rebuilding of mound structures in one spot, and building out and up of the mound itself using midden material, set strong cultural messages about stability, continuity and association with the surrounding landscape. The mounds were complex features of culturally-meaningful architecture.

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Any mistakes that remain in the thesis are my own.

Chapter One: Introduction

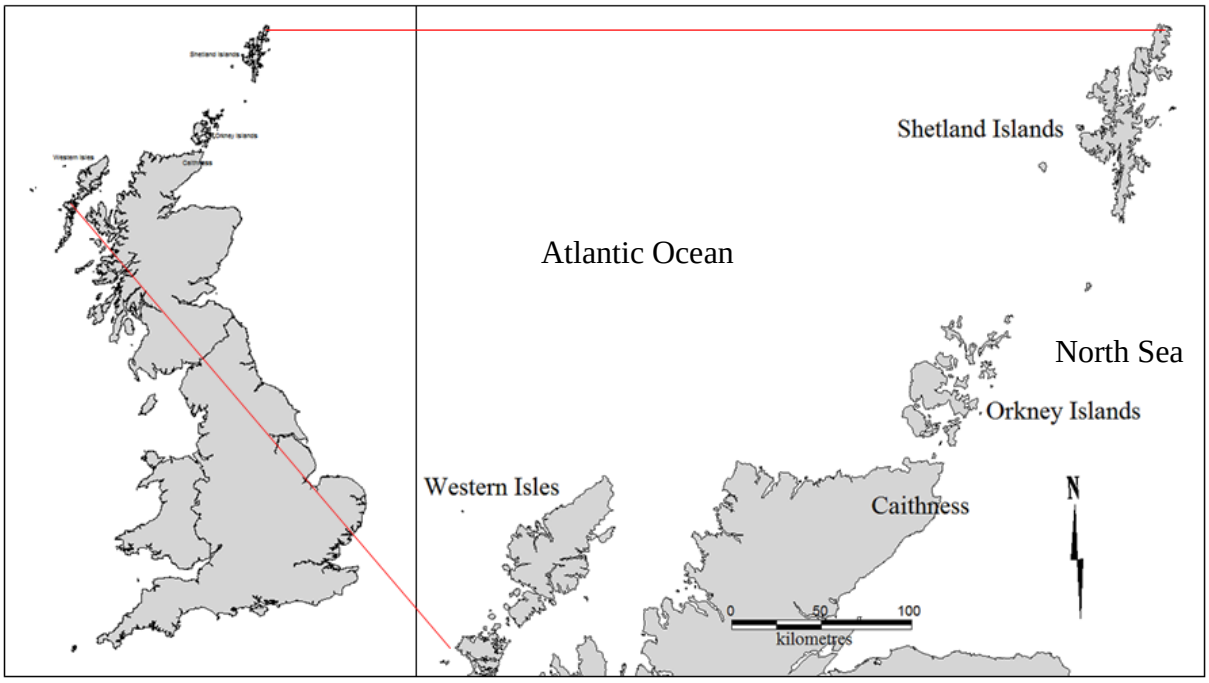


Fig. 1.01: Location of the Northern – Shetland and Orkney Islands –Western Isles and Caithness.

Introduction

The subject of this study is Viking-Late Norse settlement (c. AD800-1200) in the North Atlantic, focusing on the Orkney Islands, and on longhouse settlements constructed on coastal mounds.[1] This chapter sets out the research aims of the thesis and provides important definitions. The mound-sites in Orkney will be catalogued, and their archaeology and landscape context analysed within a new theoretical framework to achieve a fresh understanding of Viking-Late Norse settlement in Orkney. The analysis will explore how the settlements, and the mounds themselves, were built and what the details of that process might have signified. The study will also take an interdisciplinary approach, using place-name investigation to illuminate the place of mound settlements in Viking-Late Norse society. Thus, the social significance of constructing and living on settlement mounds will be considered, and what that emphasis on mounds communicated about Viking-Late Norse culture. The possible origins of settlement mound living in the settlers' Scandinavian homelands will be investigated, as will the extent to which mound living was also followed in Shetland, Caithness and

[1] For definitions of terms used in this sentence see below, pp. 6-7.

the Western Isles, and in previously unoccupied settlement lands, using Iceland as a case study. The essential question is why – and how – Viking-Late Norse communities lived on mounds.

Outline of the main study area and mound-site distribution

The Orkney Islands are an archipelago of around 70 islands situated at the meeting of the North Sea and the Atlantic Ocean. The southern-most island lies nine kilometres north of Duncansby Head on mainland Scotland (Fig. 1.01). The central and largest island, Mainland, is flanked by smaller islands to north and south. The islands' landscapes are generally gently undulating, with broad open bays often fringed with sand-dune links: the indented coastlines combine to a total length of around 800km. Orkney's solid geology is mostly easily-eroded Old Red Sandstone, with drift geology dominated by windblown shell sand and glacial till. Bays and coast-edges on the larger islands were – and are – most suitable for arable and meadow-land, with inland areas providing rough grazing. From the ninth century[2] the islands were settled by Scandinavian groups and a distinctive culture developed, which might be termed "Norse-Orcadian".

The excavated, probable and possible Viking-Late Norse settlement archaeology in Orkney is almost exclusively found on bays and coast-edges, usually on windblown sand drift geology and overwhelmingly built on mounds or in otherwise visually prominent locations (Fig. 1.02 shows, and Table 1.01 lists, the excavated sites). More generally the sandy bays of Orkney are characterised by areas of mounds. Some are natural sand-dunes, some are burial or burnt mounds, but others are larger mounds formed by generations of rebuilt settlement: tell-like accumulations of stone walls, floors and yards; turf, peat and ash; byre-waste, other midden-type material (see below, p. 8) and windblown sand.[3] A minority of definite/possible settlement mound-sites are still lived-on, mostly on Sanday and North Ronaldsay; others are multi-period, beginning as early as the Neolithic, with many of the excavated sites having been abandoned during the twelfth century. Not all periods of settlement are necessarily represented and some begin and end in the Viking-Late Norse period (Table 1.01). The

[2] The ninth century AD: all dates are AD unless stated otherwise.
[3] See *Classifying Mounds*, below pp. 47-9.

mound-sites studied here are, broadly defined: visually dominant, usually near-coast sites comprising phases of superimposed settlement including, or entirely composed of, Viking-Late Norse elements (for a fuller definition see p. 7).

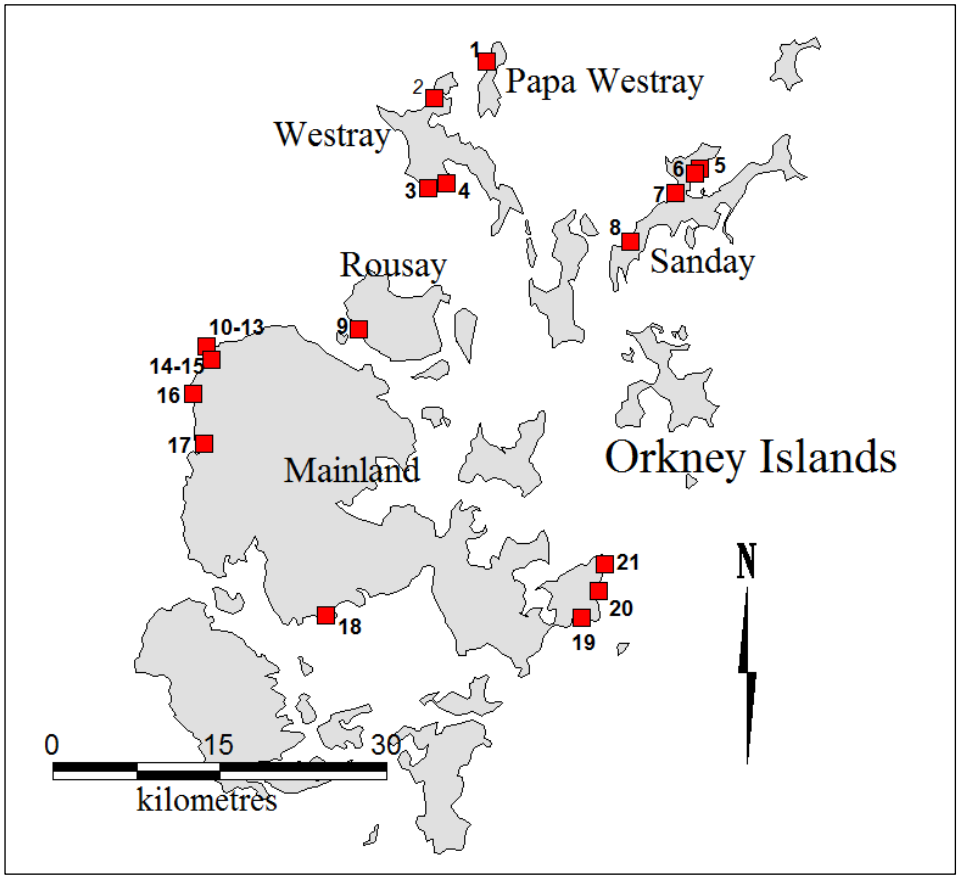


Fig. 1.02: Excavated Viking-Late Norse sites discussed in the text: 1 St Boniface (Papa Westray); 2 Quoygrew (Westray); 3 Langskaill (Westray); 4 Tuquoy (Westray); 5 Langskaill (Sanday); 6 Skelbrae (Sanday); 7 Westbrough (Sanday); 8 Pool (Sanday); 9 Westness/Swandro (Rousay) Mainland sites: 10 Brough of Birsay (Birsay); 11 Brough Road (Birsay); 12 Red Craig (Birsay); 13 Buckquoy (Birsay); 14 Beachview (Birsay); 15 Sævar Howe (Birsay); 16 Viking Houses (Marwick); 17 Snusgar and East Mound: referred to together as Skaill (Sandwick); 18 Earl's Bu (Orphir); 19 Newark Bay (Deerness); 20 Skaill (Deerness); 21 Brough of Deerness (Deerness). See Table 1.01.

Research Aims

The many Viking-Late Norse settlement mound-sites catalogued in Tables 4.02, 4.03, 4.05, 5.01, 6.01 and 7.01 have not before been analysed archeologically as a group across Orkney, in relation to their landscapes, or in the wider context of North Atlantic Scandinavian settlement.[4] Undertaking such a study should reveal much about the nature of Viking-Late Norse settlement. Many mound-site areas are also associated with Skaill ON *skáli* ('hall') place-names, often used in *Orkneyinga saga* to name

[4] 1980s research into "farm-mounds" compared a group of North Norwegian sites to possibly similar sites on one island, Sanday, in Orkney: there has been no investigation of the wider phenomenon, see below pp. 335-40.

the hall-buildings of leading figures in the Viking-Late Norse Orkney earldom (Fig. 1.03). This relationship needs investigating further to try and better link archaeological evidence with the social organisation suggested by the place-name record.

The aims of this research are therefore:

- To catalogue all the known, probable and possible settlement mound-sites in Orkney;
- To set the mound-sites in their landscape context, including all other mounds;
- To investigate the building techniques used in constructing settlement mounds, and in particular the use of midden-type material; and
- To investigate any relationships with archaeology of previous periods in the mounds. Then:
- To survey the skaill place-name sites and consider their landscape location and distribution in relation to the settlement mound-sites; and
- To compare the material in Orkney with settlement in Shetland, Caithness and the Western Isles, and with sites in previously unoccupied settlement areas, using Iceland as a case study.

This will enable consideration of the following research questions:

- What does the distribution and character of settlement mound-sites reveal about the socio-economic organisation of the landscape; and
- What were the practical and symbolic implications of the construction methods and materials used in building the mounds?

The overall hypothesis being tested is that settlement mounds in Orkney were an essential component in settlement organisation, that their location and construction were culturally determined and were both shaped by and reflected local social, political and economic imperatives.

Why this research now?

There are good reasons to do this research now. Firstly more material has become available for investigation. The new approach taken here to analysing mound archaeology was developed by the author during excavation of two Viking-Late Norse settlement mounds at Skaill (Sandwick) (DSRs

2005-2012). Those excavations highlighted the complex building techniques that followed on from choosing and continuing to construct settlement on a mound, and provided a template for re-evaluating other excavated settlements specifically as mound-sites (see Table 4.02). Those techniques relied on the use of midden-type material. Since the 1980s more mound-sites have been excavated to modern standards, and others excavated earlier have been published, such as – on Orkney – the Birsay Bay sites (Mainland), Pool (Sanday), Quoygrew (Westray) and Skaill (Deerness). Furthermore, less recent, partially published or less-extensively excavated sites, obviously part of the group of mound-sites, including Langskaill and Tuquoy (both Westray), Sævar Howe and Buckquoy (both Birsay) and Jarlshof (Shetland), could be re-assessed in more focused and informed ways against that new information.

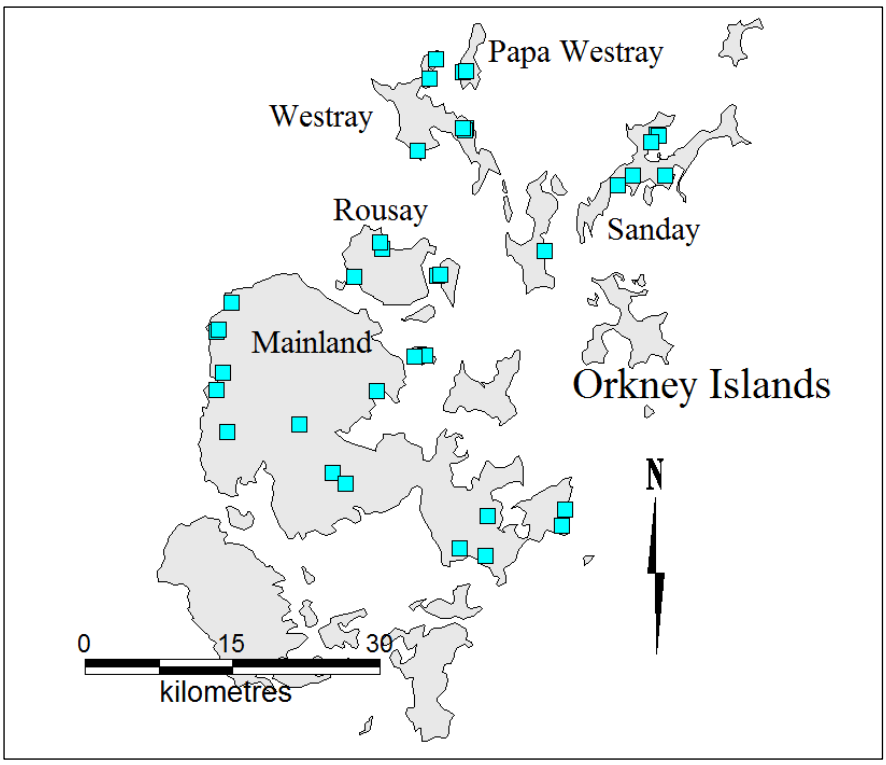


Fig. 1.03: All skaill place-name sites in Orkney.

Secondly, these sites have not been considered through the lens of archaeological theory, and there are interesting approaches that might help us to appreciate the social significance of settlement mounds for Viking-Late Norse communities. Thirdly, it is hoped that drawing together these strands of evidence in investigating mound-sites will achieve a better overall understanding of local Viking Late-Norse settlement patterns and society in Orkney. There has been no detailed archaeological study of Viking-

Late Norse settlement across the Northern Isles for more than twenty years (since Graham-Campbell and Batey 1998), and none combining archaeological, landscape and place-name evidence.

Thesis outline

The analysis will be achieved by combining landscape-scale study of relevant settlement areas in Orkney with detailed analyses of the stratigraphy and composition of excavated settlement mound-sites. The next chapter gives an overview of the sources used, outlines past research on Viking-Late Norse settlement in the Northern Isles and provides an historical framework. Chapter Three describes the research methodology and archaeological theory used. Chapters Four to Seven analyse the mound-sites and their landscape context in West and East Mainland, and the islands of Rousay, Westray, Papa Westray and Sanday; Chapter Eight surveys and discusses all the *skáli* place-name sites in Orkney. Chapter Nine investigates the Scandinavian background to mound-related settlement, and Chapter Ten mound-sites in the wider North Atlantic, before the conclusions are set out in Chapter Eleven.

Definition of Terms

Chronological period: Viking-Late Norse c. AD800-1200

Debate continues about the dating of the beginning of Scandinavian settlement of the Northern Isles, and dates assigned to the end of the "Viking" period vary across the North Atlantic and Scandinavia. As these beginnings and ends are not moments but processes this study covers the period c. AD800-1200, which embraces the earlier date-range for characteristically Scandinavian settlement in the Northern Isles and continues until a period of major change in the settlement pattern when many settlement sites are abandoned. The naming of this period is as contentious as the dating and the term chosen here deliberately combines Viking, and thus potentially early groups of settlers, and Late Norse to include their settled, and culturally and socially dominant, successors. All dates in the text are AD unless otherwise stated.

Settlement mound

Here defined as a mound manufactured by people through the superimposition of longhouse settlement (which can include stone, turf/peat and wood building-materials) and midden-type material.

These mounds usually include some or all of yards, out-buildings and paths, and may also include more than one longhouse, boundary walls and small patches of cultivated ground. All were located on natural rises, ridges, hillocks or breaks of slope, or on mounds formed around earlier settlement, or created by a combination of both natural elevation and previous settlement. This ensured the longhouse complexes were visually conspicuous. The building-up of Viking-Late Norse structures over preceding phases of settlement (pre-Viking-Late Norse and/or Viking-Late Norse) then further enhanced their prominence. Various definitions of "farm-mound", a term that has been applied to tell-like settlement mounds in Northern Norway, Iceland and Sanday (Orkney) are discussed in the text. The term "burial mound" includes all mounds created to cover funerary structures, graves or cremations.

Longhouse

There have been several summary studies of the changes over time and space in the size, shape and internal arrangements of North Atlantic longhouses during this period (e.g. Hamerow 2002; Stoklund 1984). These details of the principal structure around which settlements were focused are not central to this discussion. The word longhouse will be used to describe the central building in a Viking-Late Norse settlement, which crucially included a hall element (a domestic, open space used for all or some of eating, cooking, sleeping and working, but also importantly for communal gatherings). The hall-building might be built with or over time acquire and lose annexes and extensions used for a range of purposes including storage, workshops, housing animals or cooking. It might be linked with other buildings, often smaller outbuildings, but sometimes other longhouses (e.g. Jarlshof, pp. 393-7). The structure's core shape was sub-rectangular and one or both of the longer sides might be slightly bowed outwards, especially in earlier longhouses of the period.

Mound-site building techniques

The excavated sites demonstrate that, as Viking-Late Norse mound settlements developed, they were altered through the deliberate building over and incorporation of elements of previous structures, and were therefore characterised by both superimposed buildings and extreme stability of location (see Table 1.01). Midden-type material was vital to accomplishing this characteristic building approach.

Midden-type material

Midden-type material was needed in building longhouses, other structures and the settlement mounds themselves, as well as for manuring fields. By midden-type material is meant any layer or deposit principally composed of, or enriched by, the addition of organic material including: decayed turf, previously used for roofing or walls; peat- and wood-ash from hearths; more generic fuel-ash slag,[5] including burnt seaweed; the by-products from food provision including butchery, fish-preparation, and cooking; charred cereal grain resulting from accidents in grain-drying or cooking; shells from bait- or food-production; waste from craft-working; and the sweepings from yards, internal floors and especially the byre, which latter might combine turf/peat, hay and animal waste. These materials were not "rubbish", but might also include broken, lost, discarded or purposefully deposited artefacts. On the whole, they had either been used for one purpose – roofing, bedding or flooring – or were the result of some process – cooking, working or housing animals – and were being applied to other purpose(s), or stored for future use. So, for example, peat-ash from domestic fires was spread across internal floors, or stored for later addition to cultivated land. As a result midden-type material is encountered in various forms. The main ones are:

- *spread or sheet midden*: where material is added to areas surrounding buildings – classically very sandy soils or pure windblown sand – to stabilise those surfaces;
- *structured midden*: layers and deposits of midden used to shape areas of settlement mounds;
- *infill*: mixtures of midden, sand and soils used to infill redundant structures or build-up surfaces in preparation for rebuilding; also used for the *core* of stone-built or turf-backed walls, and
- *midden accumulations*: deliberately stored midden awaiting use for other purposes.

Some midden-type material might fit more than one of these categories. Other deposits might be more straightforwardly discarded, but always retained the potential for re-use, for example midden accumulations might provide stable foundations for new building.

For Abbreviations: see Bibliography

[5] Fuel-ash slag: vitrified material often including vitrified sand that could have resulted from a range of high-temperature pyrotechnic processes (see Dawn McLaren in Griffiths and Harrison forthcoming).

Chapter Two: sources, literature and historical framework

Introduction

This chapter gives an overview of the sources used and outlines the directions taken in previous research on Viking-Late Norse settlement in the Northern Isles and in particular on Orkney. The primary sources (including excavation monographs) will be discussed first, and then the literature for the Northern Isles on Viking-Late Norse settlement sites and the settlement landscape. Finally a brief historical framework is provided for the Viking-Late Norse period.

Sources

Primary sources

Archaeological (See Table 1.01 of excavated sites)

The two Viking-Late Norse settlement sites excavated by the Birsay-Skaill Landscape Archaeology Project (BSLAP) from 2004-2011 inspired this research on mound settlements and their place in the landscape.[1] Months spent excavating on a sea-facing settlement mound exposed to the Orkney weather posed the question, why were these locations favoured: the dominating position and wide views over the ever-changing sea and surrounding land provided one possible answer. The original site records and detailed *Data Structure Reports* (DSRs) for those excavations on the Bay of Skaill were used, as were those for the small vertical excavation at "Viking Houses," Marwick Bay (Griffiths and Harrison DSR 2009). All the other skaill-sites and island mound landscapes were visited in the field and all records tracked through the Orkney Sites and Monuments Record.[2]

Unpublished, so-called grey literature – interim archaeological reports with accounts of excavation strategy, structures, archaeological contexts and stratigraphy – was invaluable, if inevitably variable in

[1] Hereafter the two mounds excavated on the Bay of Skaill by the BSLAP will be referred to together as Skaill (Sandwick).
[2] These were accessible as a separate on-line catalogue until 2015, when the detailed OSMR records were merged with Canmore, the on-line collections of the Royal Commission on the Ancient and Historical Monuments of Scotland: http://www.rcahms.gov.uk/ RCAHMS is shortly to become part of a new public body, Historic Environment Scotland. OSMR still has its own portal linked into Canmore.

coverage and detail. The brief reports in the annual *Discovery and Excavation in Scotland* were useful pointers to relevant investigations. DSRs and unpublished excavation and survey reports held in the Orkney Sites and Monuments Record's offices, or available on-line from the originating institution, were searched out, where they existed, for example: reports on Tuquoy and Langskaill (both Westray) from the OSMR offices; or reports on the Brough of Deerness online from the University of Cambridge.[3] Westness/Swandro (Rousay) is still undergoing excavation and so only interim reports were available (see pp. 202 ff.). Certain sites have only (or also) been published as papers including: Buckquoy and Sævar Howe (Birsay) and Tuquoy (Westray).

Some of Orkney's relatively few Viking-Late Norse excavations have been published in full: Pool (Sanday) (Hunter et al. 2007), Quoygrew (Westray) (Barrett 2012) and St Boniface (Papa Westray) (Lowe 1998); or are nearly complete in the case of the Birsay Bay investigations (Morris 1989 and 1996; Volume Three is forthcoming) and the BSLAP sites (Griffiths and Harrison, forthcoming; DSRS). Unfortunately, monographs have not been yet appeared for some key sites. Of these Earl's Bu (Orphir) (Batey 1980a, 1980b and 1986; Batey and Morris 1987; Johnson and Batey 2003), now in the process now of being written-up in full, and Tuquoy (Westray) (Owen 1982, 1983, 1988, 1993 and 2005), have useful interim reports and articles available. The skeletal remains from Newark Bay (Deerness) have had more complete coverage than their archaeological context (Molleson 2005). Skaill (Deerness) was published after the Excavation Director's untimely death and, as there were no DSRs, detailed interim reports, or even full original site records, the final result is inevitably lacking in some respects, despite the best efforts of the authors (Buteux 1997). Westness (Rousay) is the most tantalising and least-well covered of all the sites: the longhouse complex appears very similar in its development and character to the BSLAP mound settlements (Kaland 1973 and 1995). All of the excavated sites except possibly for Earl's Bu (Orphir) and the Broughs of Birsay and Deerness were mound sites, and together represent a corpus wide-ranging and large enough to use as an evidence base, but not too large to be contained within a thesis. Bringing together all this unpublished and published material with site visits, the sites will be analysed as mound settlements in the central

[3] (http://www.arch.cam.ac.uk/research/projects/deerness last accessed 10/ 2015).

chapters. This analysis will study the composition, construction and stratigraphy of the mounds and structures, in their landscape context.

It was important to consult fully-published sites elsewhere – in Shetland, Caithness and the Western Isles as well as Scandinavia and Iceland – to contextualise the Orkney sites: sites such as Borg in Norway (Munch 2003); Jarlshof (Hamilton 1956), Old Scatness (Dockrill et al. 2010), Sandwick (Bigelow 1985, 1989) and other sites on the island of Unst, Shetland (Small 1996; Turner et al. 2013); Bornais (South Uist) in the Western Isles (Sharples 2005, 2012 and 2016); Freswick in Caithness (Batey 1987) and Hofstaðir in Iceland (Lucas 2009). Using these sites it could be asked whether ideas and methods informing the construction of the mound settlements in Orkney were brought from Scandinavia, and how ways of living emerging out of the Orcadian and Shetland experience also influenced Scandinavian diaspora settlement in Caithness, the Western Isles and Iceland.

Literary and historical sources

Orkneyinga saga as a source for landscape archaeology

The first literary source for Orkney is *Orkneyinga saga* (Pálsson and Edwards 1978; Taylor 1938).[4] *Orkneyinga saga* or *The History of the Earls of Orkney* (*Jarlasaga*) is one of the medieval "political" sagas and devoted entirely to the history of Orkney (Jesch 1993). It recounts the exploits of the earls of Orkney from around the late-eighth century into the thirteenth century. This early, vivid depiction of Orcadian politics and society needs to be interpreted with care but is too rich in potential information and contextual detail to be ignored. Within the text there are valuable clues to social organisation and the nature of settlement, in particular illuminating the ways some higher status sites were used. *Orkneyinga saga* was composed by an unknown author probably around AD1200 in Iceland with revisions in the thirteenth century, but no single manuscript contains the whole saga and the surviving version was compiled – 'cobbled together' – from a variety of fragmentary source materials, inevitably leaving it 'unevenly constructed' (Jesch 1992, 337; 2005, 12). Even without this problematic genesis

[4] That is leaving aside runic inscriptions, which do not as a corpus inform this study, but are dealt with in the text when they are of relevance to the site under investigation.

as a working text the saga needs treating critically as a source document. Its author was embedded in a literate, Christian milieu and presenting tales – in the early portion of the saga – of a pagan, chieftain-type society. Also being crafted was a suitable back-story for the earldom, encompassing semi-mythical beginnings, and a history intended to present the earls and the kings of Norway in a generally positive light. As a historical document it has been branded as 'inaccurate' and historians more recently have been very cautious about drawing on sagas as sources (Crawford 1987, 7-9; Woolf 2007, 242). The early sections about the history of the earldom before the twelfth century have been dismissed as 'largely a work of fiction' when questioned as a chronological record of historical events (Woolf 2007, 278). Certainly those chapters are not dependable as to dates and chronology but are more trustworthy in evoking people and places (Crawford 1987, 9).

Even the sceptical Alex Woolf grudgingly acknowledges that the saga is reasonably reliable in dealing with twelfth-century happenings (2007, 278 and 303-10). For this period the saga-writer is contemporary or near-contemporary with events and there is a level of detail, of complex narrative with critical presentation of apparent eye-witness accounts, and sense of almost annalistic origin to some of the sequences, which compels a greater reliance on its credibility (Jesch 1992, 1993). The writer may have met people depicted in the accounts, may have visited Orkney: the detailed geographical knowledge of Orkney and feel for the archipelago's landscape suggest at least being 'clearly indebted to … the testimony of Orcadian informants' (Jesch 2005, 14). Judith Jesch did not rule out the possibility that the author was an Orcadian (1992, 350). Although potentially misleading as a historical chronicle, *Orkneyinga saga*, bearing its particular perspective always in mind, is a trove of material for the landscape archaeologist, and not just for place-names and descriptions of the locations and character of dwellings of the leading characters (Gibbon 2007). The saga establishes a physical context for, and depicts the social relationships and political culture of, the Orcadian elite with some glimpses into the lives of the farmers in the social strata below.

There is a recurring theme throughout the saga of control of the earldom being shared between two or three earls – usually brothers or cousins (chs 9, 13, 35 and 94: including Einar with Brusi; Hákon with

Magnús). This creates an atmosphere of scheming and tension around the breaking and re-forming of allegiances. It also hints that islands or groups of islands within Orkney may have retained a feeling of distinctiveness, which this study argues is reflected in the settlement pattern (see Woolf 2007, 303-10 for a discussion of the political implications of shared earldoms). This idea will be explored in later chapters. The political world was complex and meetings were needed to broker relationships: events often hinged on game-changing confrontations (e.g. chs 8 and 16). In this uncertain environment the loyalty and size of an earl's military-style following was critical: winning and maintaining the fidelity of men and groups of retainers crucial to holding onto power. In *Orkneyinga saga* successful earls and leading men are notable for their generosity and specifically for their feast-giving (although over-ostentatious feasting by the earls' most powerful supporters was regarded with suspicion, see ch. 106 on Svein Asleifsson). Earl Thorfinn was remembered for hosting feasts throughout the winter, all as lavish as a Christmas feast (ch. 20). Feasting and pivotal negotiations demanded suitable settings and these were provided by the great, open-plan drinking-halls. Thorkel's hall at Deerness (ch. 16), the great feasts at the hall in Orphir (ch. 66), Sigurðr's hall at Westness (ch. 74), Svein Asleifsson's drinking-hall on Gairsay (e.g. ch. 93), and Earl Erlend's great hall at Damsay are all described in *Orkneyinga saga*: 'Erlend was persuaded by his supporters to go north to Damsay, where they spent each day drinking in a great hall' (Pálsson and Edwards 1978, ch. 94, 197).

Archaeological remains of Viking-Late Norse halls have been discovered at Earl's Bu (Orphir), Skaill (Sandwick), Skaill (Deerness), Westness/Swandro (Rousay), and Langskaill (Westray). These were the settings not only for feasts but also for political murder (of Earl Einar in ch. 16) and hall-burnings (e.g. ch. 28). The large hall at Orphir, called *skáli* in the saga, was used for 'feasting and entertainment, providing occasions for political debate, story-telling and the declamation of poetry' (Jesch 2005, 13).[5]

Throughout *Orkneyinga saga*, until well into the twelfth century, the earls and especially their leading men are presented simultaneously as raiding warriors and dedicated farmers, tied into the agricultural

[5] The halls at *Hlaupandanes* (ch. 16), Orphir (ch. 66), Freswick in Caithness (ch. 92), and on the small island of Gairsay (ch. 94) are all referred to as *skáli* (Taylor 1938).

cycle (see ch. 15 on Earl Einar, and the famous description of the lifestyle of Svein Asleifsson chs 105-8). This holding together of contrasts – of the drama of sea-borne raiding with the routine of farming – has its counterpoint in the combination of the mundane with the more existential discovered in the architecture of settlement mounds and their structures (as discussed in later chapters). The farming world is important in another respect. Military-style retinues were not the only groups playing a significant role in the fortunes of the saga earls. They are recorded on many occasions negotiating with the "farmers" (as translated throughout by Pálsson and Edwards).[6] Sometimes an earl is depicted bartering for the farmers' support by granting back land rights (Earl Sigurðr in ch. 11); or the farmers were reported grumbling, even complaining vociferously, about the imposition of dues and duties (as when Thorkel intervened to argue their case to Earl Einar in ch. 13). Later in *Orkneyinga saga* Earl Rǫgnvaldr Kali Kolsson was recorded calling the farmers to regular assemblies in Kirkwall (ch. 92). These exchanges rooted political debate in the rights and duties of the stewardship and control of land and its productivity. The farmers had some clout, and their co-operation was valuable, bringing necessary renders-in-kind, taxes and other dues which also represented their support. Earl Thorfinn was careful to ensure his tribute was collected even when he was resident in Caithness, and appointed a steward to manage his land in Orkney (ch. 14).

Orkneyinga saga also captures the agglomeration of political power in Kirkwall and changes in mid-twelfth-century society: describing the founding of the cathedral in c. AD1137, the settled residence of the earls in Kirkwall and the town's rise as the place for assemblies. This period also encompassed the end of Svein Asleifsson's pirate-life and the symbolic partitioning by his sons of Svein's great drinking-hall (ch. 108). Earl Rǫgnvaldr (ruled c. AD1135-58) was ascribed in the saga the attributes of a twelfth-century gentleman in stark contrast to Svein's warrior raiding. Rǫgnvaldr, in verse, catalogued his skills as including chess and writing runes, music and poetry (ch. 58; Jesch 2005, 16). This cultural change is reflected in the archaeology, as will be shown in Chapters Four to Seven.

[6] Alex Woolf distinguishes between a more distinctive class of leading mean the earls needed to consult, and recorded in the twelfth to thirteenth centuries, and a previous class of small-scale chieftains who competed for influence among farmer clients (2007, 306-7).

Finally *Orkneyinga saga* evokes a sense of the Orcadian landscape: peat and seaweed, otters and fish are woven into the narrative. The saga describes the swift currents and treachery of the sea but also the way in which it enables swift journeying. Important sea-routes are charted, for example when Svein Asleifsson sails up the West Mainland coast to reach the southern shores of Rousay (ch. 74). The earls and their men, even the farmers, are very mobile, travelling across the land and more readily over the sea: the saga is full of accounts of journeys between islands, and to and from Orkney to further shores, and of nights spent on board an anchored ship, a safer resting-place in uncertain times (e.g. ch. 94).

Other documentary sources

The first documentary resource compiled in Orkney did not appear until AD1492: the *Rentals*, which detailed earldom and bishopric land-holdings for taxation purposes (Peterkin 1820; Thomson 1996). These documents are, for some areas, a source of place-names, and can be used to recreate the fifteenth-century agricultural landscape. However, they cannot be projected back in an attempt to detail land organisation in the Viking-Late Norse period. Too much had changed. Even if aspects of the Later Norse (post-twelfth century) landscape may be captured in the records it is impossible to distinguish with certainty which those were: taxation before the twelfth century, based on contemporary land-holdings and agricultural systems, was assessed and collected within a social context and settlement pattern sufficiently different to render any direct application of the *Rentals* in this way highly suspect. For that reason the *Rentals* are used in this study only in a general way to suggest which areas of the islands may have been especially fertile and, where relevant, to confirm that certain farm-names have existed at least since the late-fifteenth century (with the hopefully not unreasonable suggestion that a good number of them *may* have been current for some time before that). The *Old* and *New Statistical Accounts of Scotland* (published in 1791-99 and 1842; see bibliography/abbreviations for *OSA* and *NSA* editions) are a diverting and often idiosyncratic chronicle of the parishes of Scotland, compiled by the incumbent parish minister. Along with passages on the morals and temper of parishioners are potentially useful details about land-use, topography, soils and sand-blows. The coverage varies: some clerics give information about the antiquities of their areas and where included this can help locate and characterise disappeared archaeological mounds.

Toponymic evidence was noted from as many sources as possible, including the *Rentals* and *OSA*/ *NSA*, but the key secondary sources for a non-expert were Hugh Marwick's *Orkney Farm-names* (*OFN*) and his detailed surveys of place-names for Birsay and Marwick Bays and Rousay (1924, 1931 and 1970). Place-names are important to this thesis, as there is a strong correlation between coastal mound settlement areas and skaill-names in Orkney. Skaill, ON *skáli* ('hall'), in Orkney means important hall and is a functional name linked to the Viking-Late Norse system of required hospitality and gathering taxes-in-kind (see pp. 356-9). The place-name evidence works with archaeological and saga material to help understand possible linkages between settlement mounds, central longhouses and local power networks. All the known skaill-name sites were visited and surveyed (see Table 8.01). However place-names must always be used with a degree of caution: they, like the *Rentals*, are not a fossilised record of the Viking-Late Norse, or even medieval settlement pattern (e.g. Barrett 2102, 27; see full discussion of place-names as evidence pp.351-6)

Cartographic

The First Edition Ordnance Survey maps have been enormously useful, providing information on the area location of groups of place-names and confirmation of the nineteenth-century presence of significant farmsteads. On a very general level landscape evidence can be extracted from these maps despite the fundamental changes in settlement pattern. Such changes are obvious when comparing the archaeological record to these first maps (and those maps to later ones). The *Ordnance Survey Original Name-Books* were also a place-name resource, and often preserve local accounts of otherwise unrecorded monuments and chapels. A few pre-Ordnance Survey maps were available for consultation, including estate maps for the Bay of Skaill (see Chapter Four [1]), Murdoch Mackenzie's Orkney map of 1750, Alexander Aberdeen's 1760 plan of Birsay, and Blaeu's 1654 map of Orkney.

Settlement and settlement mounds in Viking-Late Norse Archaeology: Secondary Sources

Introduction

There is of course a large body of general secondary material on the Viking-Late Norse period in the North Atlantic, including a number of stimulating collections of essays which provide context and background for research on settlement (e.g. Adam and Holman 2004; Ballin Smith et al. 2007; Barrett 2003; Batey, Jesch and Morris 1993; Fenton and Pálsson 1984). The most recent inter-disciplinary summary volume covering research on the wider Viking world demonstrated the great range of themes now encompassed: from law and society, to ships and trade, literature and religion, artefacts and settlement (Brink and Price 2008). The *Proceedings* of the international Viking Congress, held every four years, provide a reasonably regular overview of research preoccupations across the area. In recent years the on-line *Journal of the North Atlantic* has reflected the development of environmentally-rooted analyses of settlements, especially in Iceland, the Faroes and Greenland, but also in its special volumes, reported on international conferences and research projects like *The Assembly Project*.[7] Such publications together chart the development of archaeological research in the Northern Isles from its beginnings in the mid-twentieth century. They record the considerable shifts in the scope and emphases of thinking on Orcadian Norse settlement over the last 50 or so years: from concentration on descriptions of artefacts and burials, and on the character of the first settlement; to landscape archaeology, settler identity and diaspora (Barrett 2012; Dockrill et al. 2007; Griffiths and Harrison 2011a; Jesch 2015). These changes in recent decades were partly prompted by developments in techniques which have had significant impacts on methodological approaches in the field, including the increasing sophistication of environmental analyses and improvement in absolute dating methods (Hamilton et al. forthcoming; Alldritt forthcoming).

[7] (http://heranet.info/tap/index: JONA 2013, Special Volume 5: *Debating the Thing in the North I: Selected Papers from Workshops Organized by The Assembly Project*).

Settlement archaeology began in the shadow of historical, literary and linguistic research. The often slow publication of a relatively small body of modern excavations ensured discussion of the archaeology was initially dominated by artefacts and often poorly recorded burials (Crawford 1987). The first Viking-Late Norse site in Scotland published to anything like modern standards was Jarlshof (Shetland), as recently as 1956, although work there began before the Second World War (Hamilton 1956). Other earlier excavations although not primarily motivated by a desire to discover sites mentioned in sagas, as was sometimes the case in Iceland, were perhaps influenced by that approach. Westness (Rousay); Earl's Bu (Orphir); Skaill (Deerness) and the Brough of Birsay were all "saga" locations investigated in the 1970s and 1980s. Since then a greater range of sites has been explored, such as Quoygrew (Westray); Bornais in the Western Isles, and a range of sites on Unst in Shetland. Developments over recent decades in the retrieval and analysis of chemical and environmental data (plant remains, animal and fish bones, and insects), and in radiocarbon dating have contributed to the coming of age of landscape archaeology. Drawing on improved fieldwork recording and prospection techniques landscape archaeology has developed an inter-disciplinary, environmentally-informed approach to investigating sites in their landscape. This is increasingly reflected in Viking-Late Norse excavations (Barrett 2012; Dockrill 2007; Dockrill et al. 2010; Griffiths and Harrison DSRs and forthcoming; Sharples 2012; Turner et al. 2013). The influence of theoretical approaches to landscape archaeology will be discussed in the next chapter and these have enlivened the flourishing of multi-disciplinary approaches. Most importantly for this thesis the site-in-its-landscape approach allows the detail of stratigraphical excavation to be linked metaphysically to the role the mounds played in the cultural landscape.

Settlement archaeology in the Northern Isles

There have been only two major summaries of Viking-Late Norse archaeology, including settlement archaeology, of Scotland (Crawford 1987, Graham-Campbell and Batey 1998). Barbara Crawford published *Scandinavian Scotland* in 1987: the first volume to present a modern overview of the archaeology of the period, although the dominant perspective was still historical, literary and

linguistic. The first comprehensive overview of Scottish Viking-Late Norse burials and settlement from a firmly archaeological standpoint was not published until 1998 (Graham-Campbell and Batey). An up-to-date review of Viking-Late Norse settlement in the Northern Isles was overdue, especially as a number of new excavations have been published since 1998.

When Crawford published her book in 1987 the corpus of published settlement site excavations for the whole of Scotland was still very small: around a dozen. For Orkney, although Crawford could incorporate relatively full and recent information on Buckquoy, Sævar Howe and the Brough of Birsay (Birsay), the sites at Skaill (Deerness), around Birsay Bay (Mainland), Earl's Bu (Orphir), Tuquoy (Westray), Pool (Sanday) and Westness (Rousay) were still being excavated or awaiting publication. The book actually features only 22 pages on settlement archaeology, and concentrates on: history; artefacts and hoards; the burial record; saga literature; and place-names.[8] The settlement evidence was deployed principally to debate the nature of early Scandinavian settlement in Orkney, and the interaction between new arrivals and existing inhabitants. Arguments about the nature of that contact and of the continuity, or lack of it, between Pictish and Norse settlement loomed large in Viking-Late Norse archaeology before and since, and were then, and are still, complicated by the lack of reliable dating (Barrett et al. 2000b). However, Crawford also discussed a 'new and potentially important branch of archaeology': environmental archaeology (1987, 4-5). The 1980s investigations around Birsay Bay in particular had prioritised the gathering of environmental evidence to reconstruct the Viking-Late Norse landscape, and the diet and agricultural regimes of those who lived there.

In 1989 the Viking Congress was held in Caithness and Orkney and the *Proceedings* give an overview of the themes preoccupying scholars of the Viking-Age North Atlantic at that time (Batey et al. 1993). History, place-names and graves were discussed, as well as Scottish "Viking-Age" hoards and silver; several papers covered the Faroe Islands – with an emphasis on environmental aspects; others saga literature and runes; and, representing newer research areas, a palaeoecological study of fossil insect

[8] Discussing Jarlshof, Underhoull, the Biggings and Sandwick in Shetland and the Brough and Bay of Birsay, Buckquoy (Birsay), and mentioning Skaill (Deerness), Tuquoy (Westray) and Pool (Sanday) in Orkney (1987, pp. 136-158).

faunas reconstructed the environment of Norse farmsteads, in this case in Greenland and Iceland (Buckland et al. 1993). This paper is interesting as it demonstrated the range of organic materials – dung, hay, turf, seaweed, peat and grain – with their insect companions, that was being moved around and out of and into the farmstead buildings, and thus captured one aspect of the 'dynamic relationship' between the house and its landscape that will be central to this thesis (ibid. 522).

The *Proceedings* also included early reports on Pool (Sanday) (again focusing on the vexed question of the nature of early Viking settlement), and Tuquoy (Westray); a résumé of the ongoing Birsay Bay research; and one of the, to date, only reports on Westness (Rousay) (Batey et al. 1993). Of particular relevance to this study was a short paper entitled '*Settlement mounds in the North Atlantic*,' which highlighted the occurrence of "farm-mounds" in Northern Norway and on Sanday (Bertelsen and Lamb 1993, 544-54). The debate about farm-mounds during the 1980-90s was framed in the environmentally-focused consciousness of the period (see e.g. Morris and Rackham 1992), and as discussed below those origins both wrought and constrained subsequent discussion of the character of settlement mounds (see pp. 335-40 for a full discussion of farm-mound studies). Since then the study of settlement mounds as a group has foundered, except in reference to burial (Thäte 2007; McLeod 2015), and they are long overdue a new assessment in the context of inter-disciplinary approaches, landscape studies and more recent excavations and surveys .

James Graham-Campbell and Collen Batey's overview of 1998 presented an updated archaeological survey of the excavated settlements, as well as of artefacts – including hoards and material from excavations – burial sites, and environmental and ecofactual evidence. By then more information was available on sites such as Pool (Sanday), Earl's Bu (Orphir), Skaill (Deerness), and around Birsay Bay, and the volume remains a valuable introduction to settlement archaeology on Orkney. The continuing difficulties caused by the lack of a reliable absolute dating were also highlighted, particularly for the early part of the period. The excavators of Buckquoy, Sævar Howe (both Birsay) and Skaill (Deerness) had all suggested that mixed Pictish/Viking assemblages, and the presence of Pictish artefacts in deposits within Viking-Late Norse structures, were evidence for some form of

interaction between the settlers and existing populations. Revisiting those site reports for this study has suggested a more complicated picture. None of the sites were analysed specifically as mounds shaped by successive rebuilding, so the persistent residuality of finds consequent on the complexity of mound stratigraphy was not recognised as clearly as it might have been. The recovery of artefacts from an earlier period in layers created later was the inevitable result of rebuilding settlement on the same mound-site, and of the regular use of stored midden material for shaping the mound, and other purposes, within that settlement.[9] The question of the nature of the earliest settlement remains open.

Since 1998 several important site monographs have been published: Pool (Sanday) and Quoygrew, (Westray); Old Scatness and the Unst sites in Shetland. These are discussed below in the context of the move towards more landscape-scale studies.

Settlement patterns and the Orcadian landscape

With relatively few archaeological sites published until recently, analyses of settlement patterns in Orkney had been founded on historical, literary and onomastic evidence as exemplified by the work of the great Orkney place-name researcher Hugh Marwick. Marwick knew the Orcadian landscape intimately but its archaeological components played a relatively minor role in his studies. An article by the Orkney historian William Thomson in the 1989 Congress *Proceedings* on settlement patterns in Orkney indicated how the debate had been dominated by historical and place-name evidence (Thomson 1993, 340-348).[10] Thomson drew on the fifteenth-century *Rentals* to identify by-then divided large earldom farms through their ownership and taxation status, and linked these blocks of land back to chiefs mentioned in *Orkneyinga saga*, such as Kugi of Rapness. The original estates Thomson suggested had been divided by the fourteenth century, but their original extent could be detected using place-names and rental records. Later Thomson developed his analyses to relate place-names more closely to their particular landscape context. This led him, in the 1990s, to challenge

[9] Within the interiors of the actual buildings on settlement mounds the picture can be further complicated by finds that slip *down* through sandy deposits next to orthostatic (upright stone slabs) furniture, such as benches, or walls, and become intrusive or *later* objects in earlier layers.

[10] An approach also taken previously by, for example, Asgaut Steinnes who suggested that Early Norse Orkney had been divided into six administrative districts each run from a *huseby* farm (1959): and see Crawford 2006.

Marwick's hypothesis of a *chronological* spread outwards of Viking-Late Norse settlement from early, principal coastal farms. Using measurable elements including actual landscape characteristics Thomson analysed farm-name generics, such as *staðir*-names and proposed a hierarchical network of names across the landscape, with settlement intensifying through a process of internal division of estates and once-satellite settlements becoming farms in their own right (1995). Archaeological evidence, however, still played not much more than a supporting role, essentially helping to confirm place-name evidence on the status of sites.

The historians and place-names scholars' domination of research into the overall nature of settlement remained unchallenged for some time partly because of the way excavated sites were reported. It took some time for a landscape-oriented methodology to develop, and there are still not many excavations of settlement in Orkney which have considered sites in their wider setting. Several of the major published excavations of Viking-Late Norse settlement have focused on the site and its immediate setting (e.g. Pool [Sanday] despite the landscape-scale focus of the work at Toft's Ness [Sanday]). The Westness (Rousay) and Skaill (Deerness) excavations concentrated on buildings and artefacts. Landscape and middens, with their clues to a farmstead's connections to the surrounding area, were not apparently well-covered by those investigations. An early report on the Brough of Birsay excavations dealt with the artefacts (Curle 1982), while subsequent reports provided detailed coverage of buildings with some – for these purposes – frustratingly brief references to associated middens (Hunter 1986; Hunter and Morris 1981 and 1982; Morris 1996). The work carried out by Chris Morris' team around the Birsay Bay littoral had a different focus – on the environment and on using small interventions to characterise the wider use of landscape (Morris 1989). Extensive investigations of the settlements themselves were missing (away from the Brough where settlement was excavated, but for which, so far, little environmental evidence has been reported on). The excavations at Pool (Sanday) were more extensive and, unlike work on the major multi-period mound settlement at Beachview (Birsay), where only the upper layers could be excavated (Morris 1996), the full depth of the eroding Pool mound was tackled, along with its middens (Hunter et al. 2007). However interpretation focused almost entirely on the site, certainly for the Viking-Late Norse elements, and

neglected the landscape. More recently the combination of excavation and landscape survey on Unst (Shetland) has enabled an hypothesis of the island's settlement distribution to be presented (Turner et al. 2013). In Orkney both the BSLAP and the Quoygrew project used geophysics, auger investigations and test pits to explore the surrounding landscape, allowing excavated structures and middens to be placed in their wider setting (Barrett 2012; Griffiths and Harrison, forthcoming).

In recent years Sarah Jane Gibbon's (née Grieve) work on the formation of the parish system in Orkney brought together history, place-names and a landscape history approach to analysing human organisation across the archipelago (1999). That work however dealt with churches and chapels rather than secular settlement. Similarly *The Assembly Project* explored not settlement, but the locations of the major public assembly places crucial to the process of governance and political decision-making. However it did bring together landscape archaeologists, place-name specialists, and historians in exploring the landscape and physical diversity of places of assembly, to investigate 'how complex societal organisation develops and what social mechanisms facilitate the transition from localised organisations and micro-polities to large-scale kingdoms and nation states' (Semple and Sanmark 2013; www.assemblyproject.co.uk; it ran from 2010-13).

The dating problem

In his recently published monograph on Viking-Late Norse Quoygrew (Westray), James Barrett noted there was still very little evidence dated to the earlier Viking-Late Norse period, and thus continued speculation about the nature of the original Scandinavian 'diaspora' (Barrett 2012, 13). Barrett referred to the period AD850-950 during which the archaeology is dominated, as far as it can be dated, by burials with grave-goods – the "horizon of non-Christian burial" (ibid; Barrett et al. 2000a and b). Around this time the domestic architecture of Orcadian sites changed from generally curvilinear to rectilinear Scandinavian-style buildings, but potentially contemporary settlements are not very securely dated: including Buckquoy, Sævar Howe and the Brough of Birsay (Birsay); Skaill (Deerness) and Pool (Sanday). However, at the Skaill (Sandwick) mounds, tenth-century and even some late-ninth century radiocarbon dates have been secured for the earliest settlement layers

(Griffiths and Harrison forthcoming). Unfortunately the longhouse on Snusgar mound with relatively early dates was severely truncated by later ploughing and those dates cannot be put in the context of the development of the hall, of which only fragmentary walls survive (Griffiths and Harrison DSR 2004).

Historical framework

Introduction

This section provides a chronological framework for the research, linking archaeological evidence discussed above with historical events and themes. Within that framework the over-arching narrative of this study is the impact of the settlement of Scandinavian groups on the cultural landscape of Orkney. By whatever process that settlement was achieved (see below p. 26) it stimulated or accelerated change in agricultural and fishing practice, in culture and society, and networks of contact across the North Atlantic and beyond (Barrett 2012; Jesch 2015). Sufficient archaeological evidence has accumulated to show that that by the tenth century flax had been introduced, there had been shifts in emphasis in dairying and arable farming, and fishing, especially deep-sea fishing, was increasing. The pattern of settlement had altered, accompanied by an eventually wholesale renaming of the human landscape; and within that settlement the configuration of buildings changed from generally curvilinear to complexes of sub-rectangular structures, most commonly in raised locations. Pottery dropped out of widespread use to be replaced by steatite, and other new forms of artefacts, such as combs and metalwork, demonstrated widespread contacts with Scandinavia, Britain and continental Europe (e.g. Brink and Price 2008). Many of those artefacts were discovered in hoards and as grave-goods: the practices of pagan burial and more frequent hoard-deposition were themselves markers of religious and social change. Such were the indictors of the cultural dominance of Scandinavian influences in the Viking-Late Norse population.

The most likely political context for the initiation of these changes, if not the vengeful anti-pirate voyage of Norwegian king Haraldr ‘fine-hair’ *hárfagri* as narrated by *Orkneyinga saga*, was the

establishment of Scandinavians as the controllers of Orkney's prime land and strategic coastlines and landing-places. Out of that process developed the earldom of Orkney and a political culture dominated by the ambitions and arguments of the chiefly elite (Owen 2005a; Thomson 2003). Until the twelfth century the earls headed a "chiefly" society organised around maintaining them, other powerful supporters and their various retinues. The agricultural and fishing economy that sustained the wider population and also provided for feasts, renders and trade goods was supplemented by the trading, raiding and mercenary activity crucial to the identity of the elite. Mound settlements formed around longhouse or hall-complexes as described above (pp. 7-8) flourished. However, this culture became increasingly anachronistic during the latter part of the twelfth century, especially as wider political change, notably the increased influence of more centralised kingdoms, worked against the chieftain raiding culture. Economic and social change precipitated alterations in settlement forms and distribution and the highly-visible longhouse-settlements fell out of use or changed radically.

The initial settlement period: models of contact

The nature of the first contact between Picts and Scandinavians in Orkney and the colonisation process that followed continues to be hotly debated (Jesch 2015). The Picts were successful farmers, skilled craftspeople and Christian (Ballin Smith and Banks 2002). By the seventh-eighth centuries the earlier broch-towers had been adapted or were in ruins: farmsteads were more scattered across well-exploited agricultural areas. Any group arriving in Orkney would have found it impossible to avoid the Pictish inhabitants, but it is arguable whether those encounters resulted in peaceful integration under new Scandinavian leadership with once-Picts emulating their cultural practices; or a more aggressive enslavement, perhaps coupled with the ejection of troublesome Picts; or murder; or some combination of all these, happening in slightly different ways in different parts of the archipelago. *Orkneyinga saga* is silent on the fate of the previous population and their settlement: the place-name evidence tends to support the argument for a prolonged and thorough process (see Chapter Eight). Undoubtedly the Pictish culture was overwhelmed (for the vigorous debate about possible genocide see Bäcklund 2001; Crawford 1981 and Smith 2003).

The first sorties to England, Iona and Ireland in the late-eighth century made by Scandinavians intent on theft and plunder are documented in Irish annals and the Anglo-Saxon Chronicle (Thomson 2003; Whitelock et al. 1961), and by analogy it is at least possible that some of initial contacts leading up to settlement in Orkney were also raids (Crawford 1987; Thomson 2003, 47). Other early dealings may have been linked to exchange or trade. These visits, whether by traders or raiders, will have garnered intelligence on Orkney's agricultural potential and the suitability of the islands as a base for sustained aggressive activity to the south and west. Subsequent settlement may have been initiated by small ship-linked war-bands, but even if a first more-violent inroad was of fewer, fighting men, the settlement of Iceland indicates that a relatively large-scale migration from Scandinavia, even if in Iceland's case via intermediate places, was perfectly possible (McLeod 2014; Sawyer 2003). Furthermore as is increasingly argued for Scandinavian settlement in other already-occupied landscapes, such as England, the process of settlement may well have been prolonged with coming and going, and sustained, active contact between the "homelands" and the settlements (Jesch 2015).

Critical examination of the archaeology of this early period from the late-eighth into the late-ninth century does not greatly help to explain the process that resulted in Scandinavian cultural dominance. Settlement that can be confidently dated to this period and determined to be Scandinavian in cultural affiliation has proved elusive, and even more so when it is acknowledged that artefacts and behaviour captured in the archaeological record do not necessarily indicate the ethnic origins of those using certain objects or following certain economic or social practices (Jones 1997). There is, if it were needed, an additional complication in the Northern Isles. Attempts to explain the nature of contact and to date initial settlement have mostly been assayed at sites where Scandinavian-style buildings have been constructed over Pictish buildings – whether after a hiatus or not. Inevitably, as has been mentioned already, this structural superimposition produced the sort of stratigraphy that is not readily amenable to secure radiocarbon dating (Hamilton et al. in Harrison and Griffiths, forthcoming). It is also an archaeological environment in which artefact residuality is characteristic not to say inevitable (see p. 21). Several Orcadian sites have been argued to reflect on the nature of contact. At Buckquoy (Birsay) Anna Ritchie suggested a degree of social integration (1977; pp. 144-9) while at Pool

(Sanday) John Hunter briefly conjured up an image of dominant Scandinavians in one building with Picts struggling on in an adjacent structure on the same site (2007 et al., 315-31). Both these sites, as well as others with potentially early Viking-Late Norse structures, such as Sævar Howe (Birsay) and Skaill (Deerness), suffer from stratigraphical and dating challenges.

Non-settlement archaeological evidence from this earlier period will not be discussed in any great detail, and only as it reflects on sites under discussion. However, the hoards of the period, and pagan burials most probably dating from this time, add colour to the depiction of a hall-focused, military-style culture partly supported by raiding. The largest and most significant hoard found in Scotland (before the 2014 discovery in Dumfries and Galloway: Owen 2015) was recovered in 1858 in the immediate vicinity of the Skaill (Sandwick) sites and dated to AD950-70 (Griffiths 2013). The other Orcadian hoards are also nineteenth-century finds, their contexts poorly-understood and all dated by artefactual typologies to broadly this period (Graham-Campbell and Batey 1998, 228-43). The pagan burials, those with grave-goods and/or interred in boats, found in Orkney, most of which were also antiquarian discoveries, have been re-assessed and where possible re-dated using modern methods (Barrett et al. 2000a). They attest to a complex process of change in burial practice, with an apparent period of overlap between Christian and pagan-style burial (McLeod 2015).

This period in *Orkneyinga saga* is dominated by the semi-legendary family feuding of the sons of Thorfinn 'Skull-splitter', son of *Torf* 'Turf' Einar, with Orkney often divided under the rule of more than one earl (Thomson 2003, 58-9). The rule of Sigurðr 'the Stout' the 'great chieftain' (c. AD980-1014) at the end of this tumultuous time was presented as pivotal: he was forced to convert to Christianity in AD995 (Pálsson and Edwards 1978, ch. 12). Sigurðr is also the first earl to appear in the annalistic literature, his death recorded at the battle of Clontarf in Ireland in AD1014 with which mention Orkney emerges out of the murky period of migration and establishment.

The consolidation of settlement: c. AD1000 to the later-eleventh century

Thus, the Scandinavian-dominated "Norse-Orcadian" culture emerged from a complex and varied process, possibly kick-started by a violent beginning and perhaps continuing with larger migrations sustained by the control of strategic sites like the Brough of Deerness, Westness (Rousay) and the Birsay area, and of other of the more productive agricultural areas. The skaill-sites developed out of the crucible of migration, but appear to be most characteristic of the consolidated settlement pattern concomitant on more established local social and economic systems.

The eleventh century in *Orkneyinga saga* is dominated by Thorfinn Sigurðarson (AD1014-1065), who ruled as sole earl from AD1046 and according to the saga presided over the zenith of the earldom's political power (Pálsson and Edwards 1978, chs 20-21). Thorfinn settled in Birsay, becoming less peripatetic, and built the first cathedral there. Once in sole control he was recorded in *Orkneyinga saga* as having reformed both church and state (ibid. ch. 31). The rule of Sigurðr and then Thorfinn thus provide the saga context for much of the Viking-Late Norse settlement archaeology of Orkney. This is broadly the period William Thomson analysed on the basis of place-names as characterised by settlement intensification through a process of internal estate division. The majority of the longhouse/ hall-related archaeology, including Tuquoy and Langskaill (Westray), Pool (Sanday); Buckquoy and Beachview (Birsay), Skaill (Sandwick), Skaill (Deerness); and sites in Shetland falls into this later-tenth- to eleventh-century period. These, and others, are the settlements on mounds at the heart of this exploration of Viking-late Norse ways of living in the landscape that were forged out of migration and settlement.

The twelfth century

In Orkney the development of the Mainland town of Kirkwall, its cathedral (founded c. AD1137) and fine houses (Owen 2005a) in the twelfth century was linked to the fostering of a more administrative, parish-based taxation system and the emergence of a self-consciously Christian and literate elite (Gibbon 2006; Jesch 2005). This process was exacerbated by the fallout from the involvement of Orcadian leading families in a failed rebellion against the king of Norway culminating in defeat at the

sea-battle of Florvåg in AD1194.The Orcadian lands of those implicated were reportedly confiscated to become royal estates and the king of Norway, for a while at least, attempted closer supervision of Orkney (Thomson 2008a). Both earls and kings intensified control at the apex of a more structured, classically feudal pyramid, with more land overseen by stewards and exploited more intensively to meet increasingly bureaucratised tax demands.

There was a concomitant change in the settlement pattern. Farms shifted away from the coast-edge and, where geology allowed, off the windblown sand: it was difficult for example on the sandy isle of Sanday to locate many farms away from sand. Viking-Late Norse hall-sites were abandoned or radically changed. Hall-focused settlements ended at Pool (Sanday); Langskaill (Westray); Skaill (Sandwick); and Westness (Rousay); the Bough of Deerness; and probably "Viking Houses" (Marwick). The settlement on the Brough of Birsay diminished considerably in extent and quality (Hunter 1986); at Tuquoy (Westray) and Skaill (Deerness) the halls were succeeded by very different tower structures or "castles" (Grieve 1999). Quoygrew (Westray) and St Boniface (Papa Westray) developed as more specialised fishing settlements. Thus a new pattern of rural settlement emerged of farms arranged on the higher ground around bays, with specialised fishing settlements remaining on the coast, and "castles" for the elite in a range of locations.

Conclusion

Viking-Late Norse settlement in Orkney is due for a new assessment. This study will approach that task through examining the mound settlements, and bringing together the detail of their archaeology with the landscape context. The next chapter will look the thesis methodology and at the archaeological theory used; following on from the central chapters investigating Orkney sites, Chapter Nine will review the relevant literature and background on Scandinavia, before drawing sites in the wider North Atlantic – Shetland, Caithness, the Western Isles and Iceland – into the study.

Chapter Three: settlement mounds in the landscape: method and theory

Introduction

This study of settlement and landscape aims to piece together from archaeological features surviving in Orcadian and other North Atlantic coastal areas the complexity and richness of the cultural landscape of the Viking-Late Norse period. To achieve this will require rigorous data sets and a range of interpretative theories. In the recent past medieval archaeologists have been less inclined to follow prehistorians in openly exploiting the potential of theory to expand interpretations of evidence (Gilchrist and Reynolds 2009, esp. 385-90). There has been argument either side of a perceived dichotomy between "boots on the ground" empirical analyses and the extremes of post-processual "experiential" research (e.g. Bender et al. 1997; Williamson 2003). In historical landscape archaeology the emphasis – especially in the harsher environments of the North Atlantic – has been more deterministic, foregrounding the struggle for survival and envisaging people in thrall to their environment (Mills and Coles 1998; Johnson 2007). More recently however medieval archaeologists have ventured more overtly and often into the realms of theory, aiming better to reflect the dialogue between people, their particular ways of doing and thinking – their agency – and the challenges and potential of their surroundings (Gilchrist 2009). However, relatively little of this landscape approach has permeated Viking-Late Norse archaeology in the Northern Isles (see Barrett 2012, Hunter 2007 but c.f. Sharples 2005).

A different approach is possible, one that is not a compromise, but an interpretative framework for considering past landscapes and settlement which eschews that 'false dichotomy' between 'social agency and environmental determinism' (Gilchrist 2009, 391). This approach acknowledges the creative interdependence of cultures and their constructed environments: that all landscapes have been shaped over time by the socially-tuned actions of those who live and labour across them (e.g. Johnson 2007, ch. 5). At the same time the material resources, appearance and physical aspects of particular landscapes affected the activities and ideas of those communities. The subject of this study is

appropriate to this approach. Viking-Late Norse communities in Orkney seemed able to attune to landscapes' potential. Rather than being diminished by the challenges presented by new places, they carried with them ideas about what they needed from the land – and sea – and what a settlement should be like, which were then adjusted and reframed to the lands in which they settled. They worked with the landscape, manipulated and defied it and were shaped by it. Like archaeologists, Viking-Late Norse people were rooted in materiality, and their encounters with physical surroundings influenced their view of the world and coloured their continuing engagement with it (e.g. Hodder 1992).

The challenge here, therefore, is to move from partial archaeological data to propose a reading of how and why Viking-Late Norse people dwelt on settlement mounds which accommodated those human aspects of living and working in a *particular* landscape. This requires a theoretical framework that knits together material culture – the physical – at all scales, with an appreciation of social context and sensory experience. So, for example, becoming familiar with the weather, topography and changing views of the contemporary Orcadian landscape undoubtedly enriches consideration of its past landscapes. This "embodied" stance underlines the sensual way people in the past might have experienced the landscape, bringing mind and body together – observing the strength of the wind, the extent and direction of views, the prominence of even low mounds in a treeless landscape, the way sand moves (Ingold 2007; Tilley 1994). However, the archaeological record – the material culture of the past – must remain at the core of all interpretation, anchoring it and supplying rigorous evidence for the form of past settlements, for land-use, and for now-disappeared features in the landscape.

The methodology outlined below describes the data sets collected, and the sections following summarise the theoretical approaches that have framed and informed discussion and interpretation of that data.

Methodology

Three core data sets have been established to provide the evidential roots for this enquiry: the first looks broadly at Orkney's mound-rich landscapes and the *skáli*-areas with which they co-locate;[1] the second looks at the building techniques and materials used on settlement mounds; and the third at the archaeology and landscape location of all the *skáli*-sites in Orkney. As well as interrogating the published and grey-literature archaeological records, field evaluations were made of all the settlement mound sites, mound-rich areas and *skáli*-sites. The available/published records of all the excavated Viking-Late Norse settlements in Orkney were used to reinterpret the sites as midden-rich mounds, using approaches developed during excavation of the East and Snusgar mounds in the Bay of Skaill (West Mainland).

Mound landscapes

Chapters Four to Seven survey the coastal areas of West and East Mainland and the islands of Rousay, Sanday, Westray and Papa Westray, which are rich in Viking-Late Norse archaeology and have several *skáli*-sites. Tables of mound-sites in those areas were created with information from site visits and by collating existing published and unpublished investigations (Tables 4.01, 4.03, 4.05, 5.01, 6.01 and 7.01). The mounds were listed as known/probable or possible examples of the following categories of archaeological mound-site:

- prehistoric, Viking-late Norse or multi-period settlement mounds;
- broch mounds;
- prehistoric or Viking-Late Norse burial mounds; or
- burnt mounds.

Mounds that could not be classified were put into a final category of indeterminate mound-site. The means by which these categories were decided, and where possible the mounds ascribed to a period, are described on pp. 47-9. For each mound-site the tables detail as far as possible:

[1] The colocation clearly apparent when excavated Viking-Late Norse mound-sites and *skáli*-names were plotted (see Figs 1.02-1.03) was further reinforced by the detailed research work done in Chapters Four to Seven on the settlement mound-rich landscapes and *skáli*-areas.

- grid reference location;
- any recorded archaeological features;
- mound size; and
- location in respect of geology and the coast (see for example Table 4.01).

All the mound-sites were then plotted on maps so their distribution and relationships to each other, geology, topography and the sea could be assessed, and settlement patterns proposed. Known, probable and possible early chapel-sites were also recorded, so mounds could be plotted in relation to these sites. (Chapels would have been in most cases later additions to the Viking-Late Norse landscape so were not deciding factors in choosing settlement locations in the earlier period; however, their location might give a clue to the proximity of an already existing socially important site.)

Settlement Mound Architecture

The second data set built on evidence from the core sites for this study: the two settlement mounds excavated on the Bay of Skaill (West Mainland) by BSLAP. That evidence was used to compile a list of settlement mound attributes and architecture and turned into a table of locational characteristics and mound-building techniques (see pp. 73-4 and Table 4.02). The latter covers the use of midden-type material in constructing both the mound and its buildings, and other midden-related techniques applied to fashioning walls and surfaces. The building methods used in longhouses and ancillary structures were detailed, as well as the ways in which organic material was used and re-used within the settlement, for example: curated in middens; used to create floors and work-areas, and shape the bulk of the mound. Using that table as a template, all the excavated Orcadian Viking-Late Norse sites, also covered in the first landscape data set, were re-analysed individually as settlement *mounds*, to determine whether the techniques were also used at the other mound locations. Those sites are on Fig. 1.02 and Table 1.01 and included: Saevar Howe, Buckquoy and Beachview (all Birsay); Pool (Sanday); Tuquoy, Quoygrew and Langskaill (all Westray); and Skaill (Deerness). This data demonstrated the methods and materials essential to the structural narrative of mound-building, and the prevalence of those methods.

All the excavated Viking-Late Norse sites were also drawn together in a table (Table 1.01) to compare: location; proximity to *skáli*-names, early chapels and the sea; whether structures were built directly over prehistoric settlement up to the Bronze Age, and/or Early-Middle Iron Age settlement and/or Late-Iron Age to Pictish settlement; and whether the Viking-Late Norse period structures comprised several phases of rebuilding. This provided information on choice of mound-site, and the re-use of pre Viking-Late Norse, or earlier Viking-Late Norse, structures and building locations.

***Skáli*-sites**

The final data set focused on the *skáli*-sites, to survey the areas with place-names specifically denoting the presence of a hall (discussed pp. 353-59). All 38 *skáli*-sites in Orkney were visited and surveyed in their landscape context. Where these sites are not covered in the main mound landscape chapters a site report is included in the first Descriptive Catalogue (Gazetteer of skaill-sites).The essential information on these sites was gathered together in a table (Table 8.01) recording:

- distance from the coast;
- proximity to possible early chapels and other significant place-names;
- whether any structures were built over preceding ones, and of what period, and/or topped by modern buildings;
- whether they were on a mound, and the site's height above sea-level;
- whether sites were by a burn; and
- the geology in which they were located.

Finally, the sites were plotted on maps to illustrate discussion in the place-names Chapter 8 (pp. 360 ff.).

Together the three data-sets enabled the distribution and location of settlement mounds in their wider landscape to be examined, including in relation to other mounds, as well as consideration of how the materials and techniques used in constructing the settlement mounds reflected a particular way of dwelling, which also influenced the choice and character of those particular settlement-locations.

Theory

The intention here is not to "front-load" the study by referencing all the most recent landscape archaeology theory, some of which then proves to be of no further relevance in thinking about the evidence presented in the central chapters (Praetzellis 2015, 11). Rather, the aim is to select theoretical approaches, regardless of how recent or otherwise, which are relevant to the questions posed on page four and which help open up the evidence to defensible interpretations (Bintliff 2011, 8-9). Several perspectives seem especially pertinent: "older" theories about central places and settlement distribution, and more recent discussions about people's dwelling in and perception of the landscape. The latter body of theories help understand why people acted the way they did, especially when those actions were not the most obviously rational, and what physical surroundings meant to people, and therefore how landscape contributed to the formation and character of local cultures.

A thought-provoking and powerful linkage of mind and material was discovered in the Viking-Late Norse use of and attitudes to midden-type material (see p. 8 for definition). The assumption might be that "midden/rubbish" is cast-off and chaotic, but on settlement mounds the second data set demonstrated it was curated, deposited and re-used in many purposeful ways. It played an important role in creating settlements – practically and symbolically. Interpreting this aspect of settlement mounds has been the most theoretically interesting challenge. Beyond that, the broader question needs exploring of why people chose to live on exposed settlement mounds founded on that exploitation of midden-type material. The aim is to mesh theory firmly with archaeological evidence in interpreting these ways of living: the perspectives used are discussed below.

Landscape archaeology theory

The idea that settlement landscapes are cultural constructs 'infused with meaning' is at the core of this study of the character of settlement mounds (see p. 4 above; Parker Pearson 1999, 139). Those sites were embedded in their surroundings and only by studying mound settlements as aspects of the wider landscape can they be understood. The Orcadian landscapes were altered by the Viking-Late Norse

communities inhabiting them: they were not static stages but part of a narrative, the content and themes of which were supplied and influenced by both land and people. Post-processual theory envisages people and their landscapes affecting each other in a continuous dialogue: 'while people create their landscapes, these landscapes recursively act back so as to create the people who belong to them' (Tilley 1996, 162). As activity shaped, and was shaped by, particular landscapes, inferences could, and can, be drawn from the form of the landscape about the social intentions of the people driving those activities (Gell 1998, 15). Settlement mounds were part of the surrounding landscape, and the architecture of the mounds and its relationship to their settings should together reveal much about the communities living on/around them.

The settlements that resulted from this dynamic interaction varied according to the ingredients, the stuff of the empirical record – geology, hydrology, climate, topography, the land and sea's resources – as well as the less tangible elements: the skills and requirements of the communities; their ideas about what a settlement should be like, and what its form should say about the people living there. The land- and sea-scapes provided the material to build longhouses and mounds, and cultural identity was being expressed during the process of construction and through settlement form and location.

This complex relationship with physical surroundings was especially charged for settlers: forging new settlement landscapes was part of the business of negotiating and establishing identities specific to a new location and its possibilities (Jesch 2015). Although much of the known archaeology of the period probably reflects the intentions and cultural aspirations of the generations of settlers *after* the first arrivals, these were still people whose ways of living were in the process of being deeply written into their landscapes. As part of the long-term process of settling they were creating inhabited "places": locations in the landscape with accumulations of happenings – with 'associations, experiences and histories' (Chapman 2008, 198; Giddens 1984; Thomas 1999, 83-9). Landscapes were formed from the 'strata of memory,' with each of those memories taking colour and character from the places being created (Schama 2004, 67). The first Viking-Late Norse groups settling in Orkney encountered a landscape (built and otherwise) which expressed different ways of being at home and exploiting the

land, different ways of "dwelling."[2] Some aspects may have felt familiar, such as farming strategies, but others – living in round structures, the language and religion, artistic expression, use of pottery and lack of deep-sea fishing – were not. Examining the settlement mounds in their landscapes is intended to explore one of the ways Viking-Late Norse people gradually wrought the Pictish landscape to reflect their lives, and to ask why *that* way.

The "production" of meaningful settlements landscapes could be accomplished deliberately through a whole range of actions, and, for example in Viking-Age England, had included the construction or re-use of more obviously symbolic monuments including burial mounds (Reynolds 2007). The focus in Viking-Late Norse Orkney, however, was on building *settlement* mounds, less obviously intended to carry an overt symbolic statement. This study therefore needs to understand the impact of superficially everyday, routinely-used structures and materials (settlement mounds and middens) on people's perceptions of their surroundings. Looking beyond the impression made by statement monuments, like burial mounds, places can also acquire meaning through the process of everyday living. Pierre Bourdieu's concept of *habitus* – the cumulative significance of habitual, everyday actions – proposed that routine activities wove social norms and meaning into the entire physical fabric encountered in daily living (Bourdieu 1977). Such activities, although unexceptional – a vital part of living in and exploiting environments – were carried out in particular ways, reflecting the cultural attitudes of a particular group. Thus, the routines and products of subsistence-linked activities made an essential contribution to place construction. These activities – connected to food, animals, making things and keeping warm – integrated settlement and landscape and engrained meaning in surroundings.

Tim Ingold's thinking, informed by theories of "dwelling" and *habitus*, helps interpret the relationship between Viking-Late Norse people and settlement mounds. Ingold's is a more kinetic analysis of the constantly creative, reflexive and essentially material relationship built over time between people and their places, emphasising how the regular movements as well as the tasks of everyday 'practice'

[2] Ideas of lived-*in*/dwelt-in landscapes have been influenced by Martin Heidegger's theories of humans being most settled when naturally at home in their surroundings: immersed in them rather than inflicting themselves upon them (Heidegger 1993; Ingold 1995, 75).

become woven into the landscape (e.g. Ingold 1993, 52-58). Landscapes become "taskscapes" representing the 'entire ensemble of tasks in their material interlocking', within which things obtain meaning 'by virtue of their incorporation into a pattern of day-to-day activities' (Ingold 2000, 195 and 168). This linking of places, things and movement to create visually informative, socially significant landscapes is especially relevant because the material used to construct the settlement mounds, found in middens and within the buildings' fabric, originated from across the landscape, and was often the result of sequences of activities carried out in various places. So, for example, peat or turf brought from the surrounding hills to Orkney settlement mounds might first have been used as fuel for a domestic fire, and then the ash collected and spread on the floor of the byre. Eventually, the byre was cleaned out, and the material stored in a midden until finally used to pack the core of a stone wall. At each stage in its use and transformation the material acquired new meaning, embodying and calling to mind the activities and events that had brought it to that point. Each settlement mound was thus linked into a web of associations across the landscape and sea-scape it overlooked.

Midden-type material might acquire further significance through the action of deposition. Seeking the cultural meaning potentially inherent in every action, however humble – especially in societies more likely to regard ritual as inseparable from the routine of ordinary events – has become almost commonplace in prehistoric archaeology, but is less often encountered in historical settlement archaeology. J. D. Hill's ground-breaking analysis of the contents of Iron Age "rubbish" pits generated much subsequent research on what might be call broadly "deliberate deposits" (1995). Hill interpreted the contents of layers in pits as *deliberately* selected and placed, not a casual infill of swept-up rubbish. The artefacts and material so treated were mundane – so distinguished from hoards or "ritual" deposits of obviously significant/high-status items – but their choice and deposition was nonetheless *intentional* and not driven by solely practical imperatives. As will be discussed further below deposition of midden-type material on settlement mounds was meaningful in this way, not only because it encapsulated a history of actions and decisions, but also because its selective deposition in particular places embedded that history in the structure of mounds and their settlements (pp. 42 ff.). The second data set will provide evidence for this deliberate deposition of midden-type material.

The landscape language of mounds

Analyses of landscape highlighting human agency, and the importance of the everyday, will therefore be important in studying the significance of settlement mounds: the data collected here will be used to explore how settlement mounds visibly monumentalised, and drew attention to, processes binding people into their particular landscape, and to suggest the meanings those mounds might convey. Whether large, or smaller and strategically-placed, mounds were prominent elements in the Viking-Late Norse Orcadian landscape and would have been important in an essentially oral culture in visually declaring something about that society (Pedersen 2006, 351). Indeed mounds of various kinds have already been interpreted as communicating messages about those who built them (see below).

What a mound meant would have varied over time and space. Deliberately-built mounds, or natural mounds made bigger by people – manufactured mounds – were also a conspicuous element in the Late Iron Age to Viking-Age landscapes of the Scandinavian homelands. The role of those mounds in the Scandinavian landscape will be examined in Chapter Nine, demonstrating that Viking-Late Norse people settling in Orkney arrived with ideas about the significance of mounds. The landscapes travelling Scandinavians encountered in other than virgin territories had already been shaped by the activity of previous inhabitants: they were engaging 'with an environment that was itself pregnant with the past' (Ingold 1993, 153). In Orkney, the data in Chapters Four to Seven shows how settlers were immediately surrounded by existing mounds, many of which they would have perceived as people-made – manufactured – even if they could not necessarily distinguish between the various origins of mounds, which included settlement, broch, burial and burnt mounds. Some mounds interpreted as constructed may have been the natural mounds which continue to confuse modern archaeologists.[3] This range of existing mounds, so unavoidable and expressive in the landscape, had to be incorporated into the settlers' developing and different way of living: to be given new significance as part of the creation of place discussed above (e.g. Bradley 2002, 13-14). However, Viking-Late Norse people also

[3] The Far Eastern mound in the Bay of Skaill, for example, was shown by geophysics to be probably a natural formation (DSR 2011).

constructed their own mounds in Orkney, and these were *settlement* and not burial mounds.[4] Mounds continued to be significant to the settlers, although the focus on settlement mounds suggests that their meaning in the newly-settled landscape had changed.

There is already a considerable body of scholarly work using theoretical constructs to address the significance of *burial* mounds in the Anglo-Saxon, Scandinavian and Viking diaspora landscapes of this period.[5] Settlement mounds have not been treated in this way. Alison Leonard has suggested that Viking-Late Norse settlements in Orkney targeted Late Iron Age structures for their own sites (2011). This, she argued, made the existing landscape "familiar", 'strong links were established, particularly with Iron Age sites', conveying ideas of ownership and commemoration (ibid. 64). However, the study is limited to one part of West Mainland, an area which may have been exceptional (see Chapter 4[3]), and there are also difficulties with her interpretations of the archaeological record, which fatally weaken any apparently deliberate locational association with immediately preceding Iron Age sites.

Work on burial mounds has, however, served to underline the many ways in which both newly built or re-used mounds might have been ascribed significance in the landscape. Interpretations of burial mounds' meaning have concentrated on landscape expressions of ancestry, memory and ownership. Eva Thäte investigated the reuse of burial mounds in ninth- and tenth-century Scandinavia, and how this may have acted to reinforce links with significant ancestors and assert land-rights and status (Thäte 2007). Her work also noted briefly that the re-use of prehistoric *burial* mounds for burial was not continued in Viking-Late Norse Orkney. Rather, in a variation of the idiom, Viking-Late Norse settlers in the Northern Isles occasionally used abandoned *structures* – both Iron Age brochs and earlier Viking-Late Norse buildings – for burials, and even interred some people in still-accumulating

[4] There are no known major burial mounds (see p. 7 for definition) built by Viking-Late Norse people in Orkney, only possibly small cairns over usually cist burials (e.g. in Birsay Bay) and rarely perhaps over boat burials (e.g. Scar, Sanday and Westness, Rousay), but none of these survive and they remain uncertain.

[5] Some work examines the re-use of prehistoric monuments. For example, Sarah Semple studied the relationships between Anglo-Saxons and the prehistoric monuments they encountered in the landscape, including re-use of prehistoric burial mounds (2013). Other research has addressed the significance of burial mounds constructed in the Anglo-Saxon period (Lucy and Reynolds 2002; Pollington 2008).

middens (ibid; Leonard 2011; McLeod 2015).[6] This suggests that although the emphasis was different – and concentrated on settlement – the landscape language of mounds remained potent. The significance of those particular burials will be discussed further in the relevant area chapters and in the conclusion.

Recently Shane McLeod examined the landscape context of accompanied (pagan) Viking-Late Norse burials in Orkney (2015). The corpus is small, only 13 sites, and often poorly recorded and dated, but McLeod proposed that there was a deliberate association – mostly of proximity not direct re-use – between such burials made (presumably) in the early settlement period and '*pre*-Viking visible manmade landscape features' (which he terms EMFL). His analysis concentrates on the potential power of *existing* features in the landscape, arguing that by burying their dead close to EMFLs, many of which (probably) presented as mounds, the immigrants could assert a claim to the land they occupied and signal control of the sea-ways (2015, 11 and 13). This may be so, but the theory is hard to substantiate as it relies on a small evidence-base and solely on proximity.[7]

This study will concentrate on the mounds – the settlement mounds – that the Viking-Late Norse people constructed for themselves. The corpus of theory-informed explorations of people's interactions with already existing mounds in their landscapes has, however, been helpful in underlining that by living on settlement *mounds* Viking-Late Norse people were harnessing a legacy of rich mound-related associations (and see Chapter Nine).

[6] The following accompanied burials in abandoned structures or middens have been recorded: at Buckquoy into a Viking-Late Norse building (Ritchie 1977); at Bough Road three burials into active Viking-Late Norse midden and over prehistoric cairns (Morris 1998); two burials into the Broch of Gurness (Hedges 1987); one into the coastal multi-period Bay of Skaill settlement mound (Morris 1985); and possibly one into abandoned Iron Age structures at Howe (Ballin Smith 1994, 120). Where relevant these burials are reconsidered in area chapters.
[7] The coastal areas investigated were relatively small and proximity might as easily have been accidental as deliberate. They were also the areas generally favoured for settlement.

Central Place Theory

Viking-Late Norse landscapes were not only structured and given meaning by activity: there was a potential *distribution* of settlements linked together and fulfilling different political, social and economic roles. Archaeological investigation has sought to explain the spatial patterning of settlements and their relationships since the first distribution map was produced (Haselgrove 1986). Central Place Theory (CPT) played a part in those explanations after it was adapted from human geography in the 1960s (Christaller 1966). Originally conceived as an essentially economic theory to conceptualise the relationship between towns and rural settlement, CPT generally assumes a hierarchical system (Astill 2007).[8] Aspects of CPT have been reworked by archaeologists to explain social and political as well as economic relationships between larger and smaller places, not just towns and surrounding sites, and to understand places that appeared to control, provide services for, or otherwise influence settlement in the surrounding area (Grant 1986). An updated version of CPT will be used as part of the theoretical approach in this study.

More traditional CPT thinking might argue that settlement distribution in Orkney was dispersed because essentially driven by the need for groups living by farming and fishing not to compete for resources. However, Viking-Late Norse society was characteristically hierarchical and structured by socially-dominant central places (see e.g. p. 377), and the mound-sited settlements in *skáli*-areas would be good candidates for such a role. Furthermore, undertaking deep-sea fishing and raiding, contributing tax-in-kind and sharing common land meant settlements *did* need to collaborate. Mound settlements could therefore have fulfilled a range of central place functions, and it will be proposed those "functions" were cultural and symbolic as well as social/economic. The linking of the mound settlements with the landscape through their extensive use of midden material generated across the surrounding area expressed in physical metaphor the central place role of the mound-site.

[8] CPT has been especially enduring in Scandinavia; one of the classic applications in Britain has been to hillforts (Grant 1986).

Early applications of CPT in archaeology were often illustrated by maps of a landscape parcelled up into polygons, or other line-bounded shapes, each with its central place or hierarchy of central places (Renfrew 1976). A different approach is taken here to settlement mounds as central places, moving away from strictly delineated boundaries to considering focal nodes in the landscape, more akin to David Rollason's mapping of early medieval kingdoms emphasising heartlands and border zones (2003; also Heide 2015). The settlement mound's sphere of influence is here equated with what could be seen from the mound: its *visible* territory. Site visits confirmed that all the excavated/probable settlement mounds had wide view-sheds over land and/or sea. However, the central place status of settlements in the Orkney earldom probably varied over even short periods of time. The most powerful people in Viking-Late Norse Orkney were peripatetic: when a leading person was in residence a place would assume greater dominance over the surrounding social landscape. Settlement mounds are thus interpreted as visible anchors in a cultural catchment area and also central places whose particular role shifted with time.

Middens and Materiality: deliberate deposition

Middens are a major focus of this study. The midden-type material curated and used on settlement mounds exemplifies the linkage of matter and culture. These accumulations of the most mundane materials recorded a community's activities and engagement with the landscape around them. Theories of materiality, building from James Gibson's ideas of perception, are useful in considering the significance of midden.[9] Tim Ingold discussed the impact of the *properties* of materials – the stuff they are made of – and the 'immersion' of humans in 'an ocean of materials' in constant transformation (Ingold 2007, 7). Thus, people and the materials they encounter, use and transform are 'active constituents in a world in formation' (ibid. 11). The properties of a material, as experienced by people, vary with time, weather and treatment, and so those materials – whether made into objects or not – accumulate a history of human participation and perception. Human relationships with objects,

[9] Gibson emphasised the complete engagement of all human senses in perceiving and responding to their surroundings (e.g. 1979, 16).

structures *and* the materials they are made from are not just utilitarian, but encompass an accretion of symbolism acquired through engagement.

The detailed observations in the data of the properties and application of midden-type deposits on settlement mounds suggest how the materials contained in those deposits might have been perceived. The materials ending up in midden-type settlement mound deposits included seaweed, sand, stone and turf/peat, collected from across the landscape and appreciated for their various practical applications. Their various properties were also symbolically resonant. Seaweed was a plant of both sea and land, sand a solid that behaved like a liquid: both, therefore, reflected lives lived seamlessly across land and sea. Sand was also very responsive to human absence and presence: showing footprints and gathering quickly where people were no longer active (Harrison 2007; Welland 2009). Other materials in the midden – ash, slag, broken artefacts, bone and shell – were the products of activities, and carried into their next transformation representations of both special occasions, like feasts, as well as the routine round of fishing, agriculture and artefact manufacture, that generated the deposits.

As they possess this culturally-charged materiality, midden-type deposits can usefully be interpreted as a form of "deliberate" deposit. This is not the place to review the considerable – and mostly prehistoric – literature discussing such deposits (see Garrow 2012), but broadly defined these are intentional and meaningful depositions in landscapes, structures, or cut features of deliberately selected artefacts and material. Tighter definitions are period and place-specific. There are, however, two broad categories of deliberate deposit, which are ends of a spectrum rather than easily separable. One definition embraces groups of or single objects, of some obvious significance or high status, deliberately selected and placed in pits, postholes or structures to mark significant moments (Hamerow 2006). During this study evidence was observed for this type of "special" deposit in buildings on settlement mounds. These included groups of objects (for example at Skaill [Sandwick]) and single artefacts, usually combs, whetstones or quern stones, all of which may have been have been considered to have particular symbolism. Combs and whetstones, for example, have been interpreted as signalling identity and status (Ashby 2014; McLaren in Griffiths and Harrison, forthcoming).

The second and wider definition of deliberate deposition encompasses any material intentionally selected and deposited, and thus figuratively building into a location occasions or actions called to mind by that material. Archaeologists of prehistory argue that the accumulation and re-use of midden-type material contributed to creating a strong sense of place, providing visual reminders of past presence and doings (Lamdin-Whymark 2008; Thomas 2012). Joshua Pollard contended that residues of settlement activity, gathered in huge middens as well as placed in Neolithic pits, had gained potency from their involvement in social, and indeed economic, life (e.g. 2008). This may have been particularly true of the remains of feasting with large midden accumulations representing the gathering and communal activity of groups of people at sites of assembly (McOmish 1996). The Late Bronze Age middens at Runnymede Bridge symbolised 'socially bonding activities' (Needham and Spence 1997, 89). Huge midden-mounds from a similar period at East Chisenbury included carefully structured deposition of material (McOmish 1996, 75). Both studies argued that organic remains were curated in ways both purposeful and driven by other than practical imperatives. Similarly Kate Waddington analysed depositional practice in the Middle Iron Age village at Howe, near Stromness on Mainland Orkney (2014). Her re-examination of the sequence of accumulated deposits and food refuse within the buildings proposed that the layers were laid to commemorate major structural changes on the site. The practice of laying down midden-type material at significant moments in the houses' 'lifecycles' underlined 'the potent nature of incorporating accumulations of material within them' (ibid. 192).

In a similar way routine yet significant activity might be represented in the use of midden on Viking-Late Norse settlement mounds evidenced in the data here. John Chapman envisaged sites becoming inhabited places through an 'accumulation of associations' (2008, 198), and this description can be applied to midden-type material interpreted as deliberate and structured deposition. A midden thought of in this way brings together in one place 'fragments of distributed practice' (McFadyen 2008, 308: discussing architecture). Furthermore, midden-type material on settlement mounds was not usually deposited just once. Much was carefully stored for later re-use in different combinations of materials for building, creating floors and surfaces, and consolidating the mound itself. As John Hunter

observed, this necessitated a ‘complex cycle of deposition, removal and redeposition’ (2007, 142). Each event in this cycle added another element in the narrative of the midden material.

The theory-rich interpretation of medieval deliberate deposition is not yet extensive, and tends to focus on ideas of commemoration. However, Helena Hamerow investigated animal and human remains placed deliberately in Anglo-Saxon features and interpreted them as votive or ritual (Hamerow 2006). James Morris and Ben Jervis subsequently broadened the analysis to include a greater range of faunal remains as well as pottery. They argued these midden-like deposits ‘may be representative of feasting, changing structures … and transformations of animals to items’ (Morris and Jervis 2011, 77-78). Articles published in an edited volume under the title *Manure Matters* also broadened the debate (Jones 2012a). This volume explored the history of organic material used as fertiliser and valued as an economic resource. But as Richard Jones acknowledged ‘… for various reasons, it is often accorded a social significance too’ (2012a). Many of the discussions cover midden-heaps as well as material applied to fields. In his own chapter on the medieval period Jones argued that, although inevitably associated with labourers, manure carried a positive message from Biblical traditions and had become a powerful means of asserting peasant identity (2012b). Midden was far from being cast-off “rubbish”: its accumulation, use and re-use could be socially meaningful and ideologically resonant, carrying messages about cultural practice, and visual representations and reminders of past activity.

Conclusion

The following chapters will bring together all the mound-sites in the areas of investigation and the new analyses of previously excavated Viking-Late Norse settlement mounds. Chapter Four starts with a discussion of the process of mound classification, and then examines the mounds of the Bay of Skaill (West Mainland, Orkney) in their landscape context, including the two recently excavated mound settlements there that provide the type-sites for this study. For this reason the layout of the Bay of Skaill section will be slightly different from the rest of Chapter Four and the following chapters – Five to Seven – surveying the other mound areas in Orkney.

Chapter Four (1): archaeological mounds in the Bay of Skaill, West Mainland

This chapter focuses on the Viking-Late Norse settlement mound-sites central to this thesis: Snusgar and the East mound in the north-east corner of the Bay of Skaill in West Mainland. The template for mound building techniques and deliberate midden use in mound architecture was created by drawing on the archaeology of these two mounds (see Table 4.02).[1] Before dealing with mound-sites in the Bay of Skaill the challenges faced in classifying mounds are discussed. Then all the known archaeological mounds in the Bay of Skaill will be considered in their landscape context. They will be examined in two areas: the mounds of the surrounding gentle hills and ridges; and those within the open, wide bowl of the bay itself which provide the immediate context for Snusgar and East mounds. Finally, the archaeology of those two sites will be considered as pertaining specifically to settlement mounds.

Classifying Mounds

A range of sources have been used to compile tables of all mound-sites in the skaill-areas and mound-rich bays of Orkney (e.g. Table 4.01). The table for the Bay of Skaill records around 30 archaeological/possibly archaeological mound-sites; half-a-dozen of the entries encompass more than one mound and a few cover mounds now disappeared. Relatively few have been excavated or soundly dated and many cannot be classified with certainty. The classifications used are: known/possible settlement mounds; known/possible burnt mounds; known/possible burial mounds; known/possible broch mounds; and indeterminate mounds. Many have been classified by morphology, the visible presence of structural stone, midden-type material or burnt stone, and occasionally by artefacts.

Some of these aids to classification raise difficulties. Recorded burnt stone scatters and “dark deposits” have routinely been used to determine mounds as “burnt mounds”, usually defined as hillocks comprising the remains of Bronze Age activity areas where large quantities of water were

[1] The mounds were excavated from 2004-2011 as part of the University of Oxford’s Birsay-Skaill Landscape Archaeology Project led by Dr David Griffiths, with the author directing the excavations: they are referred to together throughout the rest of the text as Skaill (Sandwick): see pp. 86-8 for a discussion of skaill place-names in the Bay of Skaill.

heated using fire-hot stones in a system of troughs. However, unspecified “dark deposits”, with no other supporting evidence, are as likely to be richly humic midden-type deposits. These deposits, as well as dumps of fire-cracked stones, have been found on a wide range of sites of all periods (e.g. within the Viking-Late Norse settlement area on East Mound [Sandwick]: DSR 2008). Burnt mounds can be classified more securely if the mounds, as well as producing burnt stones, are smaller (under c. 20m), on inland hillsides/bay-centres by streams or wetter areas and reveal the upright elements of a small stone chamber. However, noticing upright (orthostatic) stones in potentially cist-like box arrangements might also prompt classification as a burial mound, or even – for larger mounds – as a prehistoric settlement mound. In fact, orthostatic arrangements of stone slabs are found on a range of sites: stone slabs used to create side benches, floor-boxes and hearths on Viking-Late Norse sites can look much the same as cists or prehistoric furnishings when revealed in coastal exposures or found poking through eroding turf-covered mounds.

Erosion complicates mound analysis. The exposure of archaeological layers and deposits through the attrition of sand mounds by people, animals, weather, water and in particular sea and storms, allows for recording (Dawson 2003; Gibson 2008). But many if not most coastal sections present archaeology that is hard to interpret, and a challenge to date, without selective excavation and survey (DSR 2009, Marwick Bay). The loss of parts of sites to erosion undermines attempts to use size and shape as an aid to typology; the extent, angle and location of the erosion reveals only certain elements of frequently complex structural and depositional sequences. Without excavation the confident classification of mounds – coastal and inland – continues to be difficult. In particular mounds without any visible archaeology but an “unnatural” look remain an enigma. At Skaill (Sandwick) the archaeology-rich East mound was initially thought to be natural; a small mound nearby, “looking” very much like the burial mounds long known about in the centre of the bay, turned out to be natural (DSR 2011).

All that having been acknowledged there are aspects which can help with mound classification. The difficulties identified above apply to all the islands in this study but each one has different landscape characteristics that can contribute to identifying mounds. On islands with more extensive inland or

hilly areas, like Mainland, Westray and Rousay, there are two broad categories linked to different topographies and to mound size: inland and smaller; more coastal and larger. The smaller (the smallest are c. 5m in diameter, with most between 8-18m) and mostly inland, or at any rate non-coastal, mounds tend to be classified as either: burial mounds, including the larger chambered cairn sites; as burnt mounds; or as "indeterminate". In particular, chains of hills such as in the west of Westray, or in West Mainland are dominated by mounds interpreted as prehistoric burial mounds (e.g. Table 6.01: nos 23-5, 32, 35, 40 and 41). Larger mounds (30-100m in diameter) interpreted as or known to be settlement mounds tend to cluster in areas of windblown sand, on the arms of bays above the damper bay-centres, and/or right on the coast, in the latter case appearing just behind the High Water Mark or in coastal erosion exposures. There is a built-in bias towards the discovery of coast-edge mounds as these are so often revealed by coastal erosion. There are no doubt settlements, like the two longhouse-mounds at Skaill (Sandwick), still to be discovered in larger mounds behind the coast-edge.

Introduction to the Bay of Skaill

The Bay of Skaill is the largest bay in north-west Mainland (c. 2.5km SW-NE and 2km NW-SE): a wide, half-moon open to the north-west and sheltered by higher curving headlands. Although there are extensive, cobble-strewn, wave-cut platforms in the north-east and south-west, the main sweep of the beach between Mean High and Low Water is windblown sand, with a cobble storm-beach below the sand cliffs of the bay margin (Fig. 4.01).

Skaill is a "classic" Orkney windblown sand bay: with a sandy beach and hinterland; central meadowland and rough pasture; gentle mid-slopes for arable; and higher land, some of which could be ploughed, but also used for grazing and harvested for turf and peat. The bay is suitable for landing shallow draft vessels and provides the easiest beaching for boats along the north-west Mainland coast: in Viking-Late Norse times that coast was a crucial sailing passage. The encircling hills are gentle and the area of potential arable land relatively high, with fresh water supplied by burns and the Loch of Skaill. Jo Ben recorded the parish of Sandwick as being very fertile and especially good for the '… wiry little Orkney pigs that in olden times were kept all summer outside the township dykes' (Fraser

1923-4, 24).Three major streams flow into the Bay: one running due south near St Peter's Kirk; the Burn of Snusgar running from the north-east past the East and Snusgar mounds; and another in the south-east running from the Loch of Skaill past Skaill House, and once powerful enough to power a mill on the coast-edge.

Fig. 4.01: The Bay of Skaill looking NNW.

Sandwick is best known now for the Neolithic settlement of Skara Brae sited on the bay's southern edge, perilously vulnerable to erosion. Visitors are also drawn to admire Skaill House, a seventeenth-century mansion lying 280m south-east of the Neolithic site (Fig. 4.13). The northern side of the bay, in particular, is dominated by large turf-covered mounds visible from all around the bay, many of which have until recently been rapidly passed over as natural sand-mounds (Fig. 4.02). Sandwick and the Bay of Skaill are not mentioned in *Orkneyinga saga*, but a place called *Hlaupandanes* may have been located here rather than at Skaill (Deerness).[2] Christopher Morris noted: 'There is no reason … why the [Viking] archaeology of the Bay of Skaill should be any less rich than the Bay of Birsay [sic]' (Morris 1985, 89). The skaill place-names in the bay area (for the bay itself, the mansion in the south

[2] See also fn. 2 Chapter 5(1): there is a continuing debate about the location of *Hlaupandanes.* The hall there was referred to in the saga as a *skáli*, the residence of Amundi and Thorkel (Taylor 1938, 151 and 358). According to Hugh Marwick a Celtic cross-mould came from a place called *Loupandisness* which was marked on the 6" Ordnance Survey map for the area as near Skaill House: the site is recorded as at HY2357 1840 in a field between Skaill House and the Loch of Skaill (no. 82a; Canmore ID1678; Marwick, 1952, 82).

and a long-vanished Langskaill in Scarwell) and the finding in 1858 of the large Viking silver hoard known as the Skaill hoard (no. 72), probably on or near the Castle of Snusgar (no. 70), argue for important Viking-Late Norse settlement in the area. Although there were for some time poorly evidenced reports of possible structures in mounds, recorded erosion-sections with several phases of building remains, and Viking-Late Norse burials reported and recorded along the bay-edge (see below), it is only relatively recently that evidence has been collated (Morris 1985), and then augmented by a significant research project into the Viking-Late Norse archaeology of the Bay of Skaill (BSLAP 2004-2012).

Fig. 4.02: Mounds in the north of the bay, looking north-west: East mound (no.71) under excavation; Snusgar (no. 70) and mound no. 74 left centre; mound no. 73 visible under the enclosure behind St Peter's © BSLAP.

The Bay of Skaill and the surrounding hills returned an inventory of just over 30 mounds (Table 4.01). There is a clear pattern: smaller burial-type and indeterminate mounds on crests and ridges, or the low central ground in the bay; and larger settlement/possible settlement mounds in the sandy areas on the coast-edge and bay arms. There are two probable brochs on the bay (nos 82 and 82a) and two in the hinterland (nos 83 and 84; Fig. 4.05).

Geology and Topography

The solid geology of the bay is Upper Stromness Flagstone formation, incised with igneous dykes.[3] This is overlain by the most extensive spread of windblown sand on Mainland (Fig. 4.04), formed behind the beach into coastal links: a low hummocky strip about 20m wide. This narrow band of disturbed dunes gives way to fixed windblown sand pasture. Some areas are down to arable fields growing barley in rotation. The less well-drained bay centre is skirted by mounds to the north: although generally stable, the sides of these mounds are continually eroded by sheep and cattle trampling and the burrowing of a huge rabbit population.

Fig. 4.03: looking south-east across the Bay of Skaill, with Loch of Skaill in the centre and Lochs of Harray and Stenness in the background.

In the south the curving headland rises to 59mOD at Ward Hill sloping gradually up behind Skaill House and Farm and the Loch of Skaill. The sand-cliffs reach up to three metres above solid geology in the south-west dropping to almost nothing in the centre of the bay and rising again to two metres beyond mound no. 74, before reaching 15m high under the Broch of Verron (no. 82; author survey 2008). The northern headland rises very gently northwards to Northdyke at 64mOD. The bay is

[3] These dykes were more accurately plotted in recent geophysics (Griffiths 2006; Griffiths and Harrison forthcoming).

enclosed to the north-east by two rolling summits at 60mOD and 58mOD, with the modern farms strung out along their mid-slopes between 20-40mOD. To the east the open basin of the bay is cut off by the twin summits of Sand Fiold (42mOD) and Kier Fiold (59mOD), leaving a pass to their north through to the centre of north-west Mainland. The centre of the bay (c 0.5km deep by 1km wide) is pock-marked by sand quarries, fringed by mounds in the north and the loch to the south. Deep top-soils have been plotted surrounding the windblown sand centre, with especially large areas to the north and east (Fig. 4.04; 1981 Soil Survey of Scotland; Simpson 1985). In the Bay of Skaill these soils, enhanced by farmers over long periods, coincide with the current distribution of farms. As the anthropogenic deep top-soils that have been investigated so far began to be formed at very different dates, the genesis of these extensive areas cannot yet be pinned down (see pp. 112-20 for further discussion of these soils).

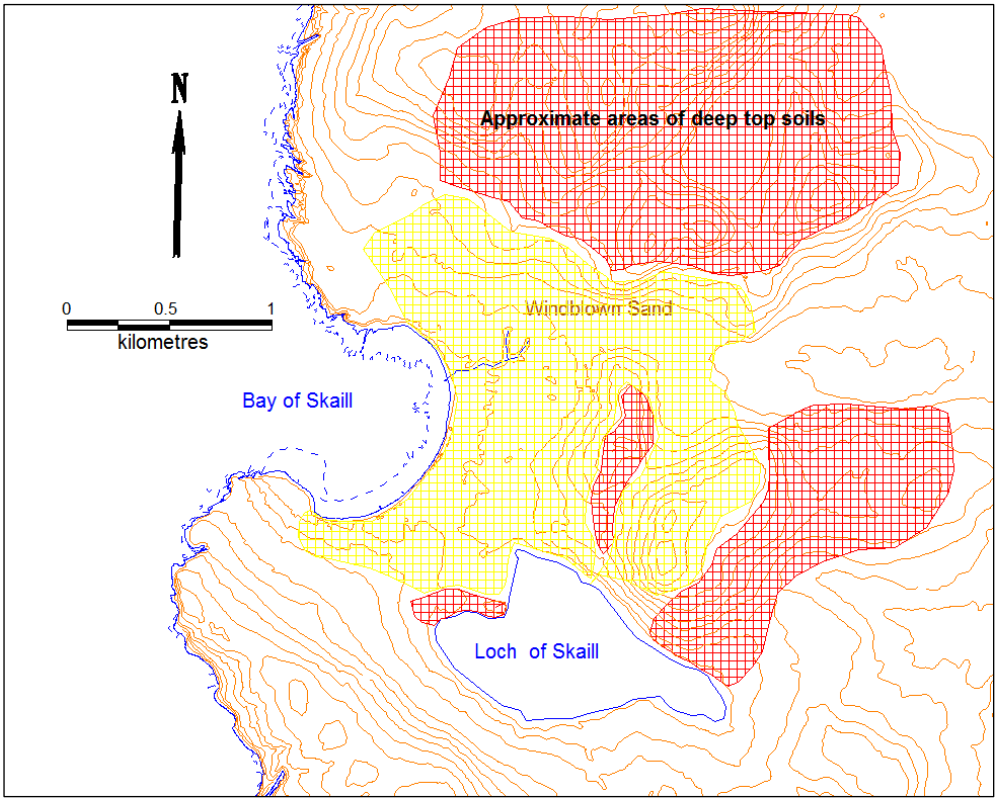


Fig. 4.04: windblown sand links and beach, with approximate areas of deep top-soils.

Distribution of Mounds and Settlement in the Bay of Skaill: Table 4.01; Fig. 4.05

Introduction

The pattern of mound distribution around the Bay of Skaill is relatively clear with all settlement or potential settlement mounds clustered on the coastal edge or lower slopes of the bay-arms (Fig. 4.05). Archaeological investigation in the Bay has hitherto concentrated on the area around Skara Brae, leaving archaeology of other periods/areas relatively under-researched. Coast-edge archaeology has been revealed piecemeal over the years as sandy beach-cliffs erode, in particular across the mound south-west of Skara Brae. Archaeological material and burials from that mound have been separately and rapidly recorded in erosion sections for over a century, exemplifying the difficulties of interpreting archaeology discovered in this way. Larger inland mounds – potential settlement sites – have been as challenging to classify without excavation. Geophysics can rarely determine distinct structural arrangements in sand settlement mounds, but can reveal the general presence of deeply-stratified archaeology (Harrison 2007, 38-55). In 1967 the County Archaeologist walked the hills around the bay recording probable/possible burial mounds, work re-visited by the *Orkney Barrows Project* in 1992-3. The record of burial mounds in this area is therefore better than for other mounds. The bay has been divided into two areas of investigation: the hills and ridges surrounding the bay and the coast, and the bay-centre and lower slopes of the bay-arms.

Areas of Investigation

Area 1: Hills and Ridges

Almost all the sites on the higher ground to the north, west and south are known/probable prehistoric burial sites (nos 91-98), but none of these sites have been excavated in recent times or have good antiquarian records of investigation. All are located on crests and ridges and thus highly visible; several of the sites include or included a number of mounds, for example no. 95, Stockan. Two sites are larger mounds suspected to be burial cairns (nos 93 and 94) while the remainder, where they survive, are smaller barrows around 10-12m in diameter. Of the three indeterminate mound sites (nos

99, 100 and 101) on the edge of the area, only one mound remains. Just one burnt mound has been noted beyond the hills enclosing the bay (no. 102).

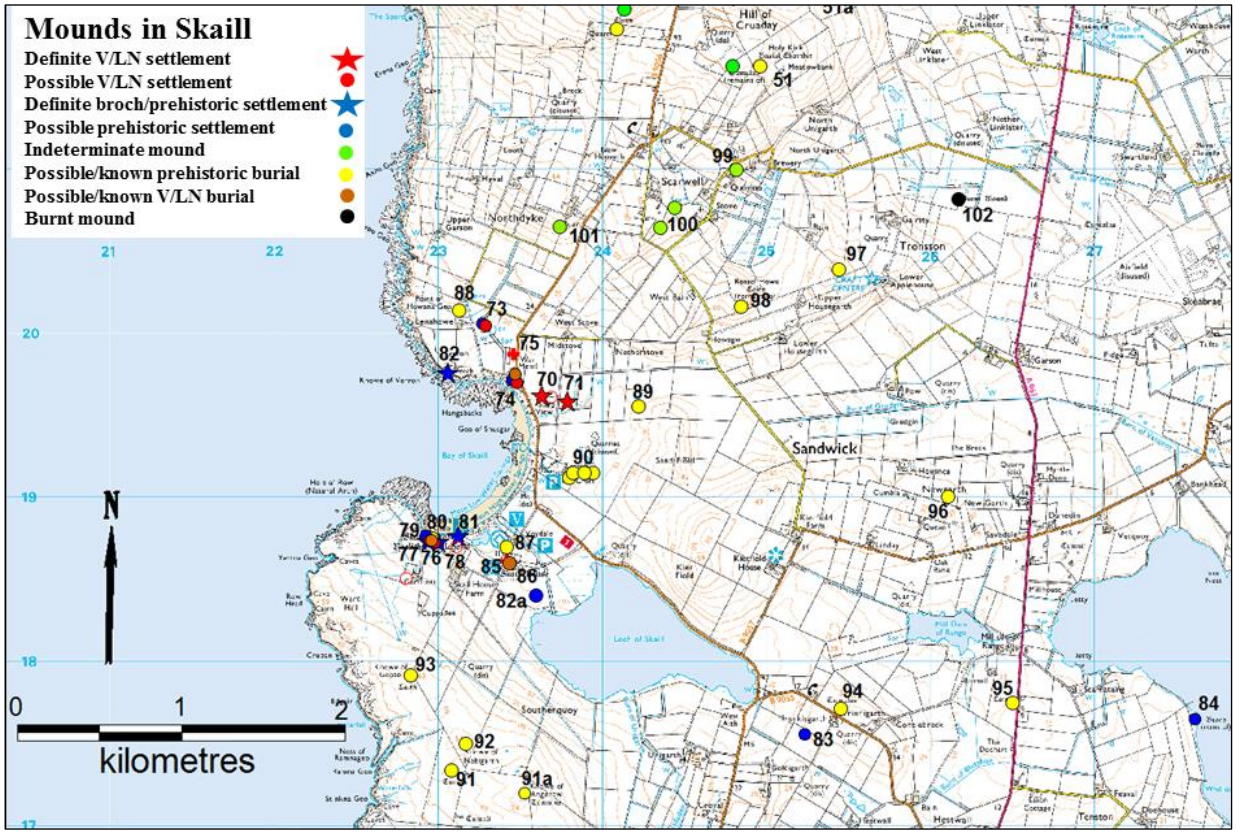


Fig. 4.05: archaeological mounds around the Bay of Skaill: for detail see Fig. 4.07.

Two of the mound-sites are known/possible broch sites. No trace survives of site 83 overlooking the Loch of Skaill, and the only record is a report in the *Original Name-Book*. Site 84 is in a more traditional broch location on a small promontory projecting into the Loch of Harray and curved remains of walling survive.

Area 2: the Bay of Skaill

Introduction

This section will deal with the archaeology of this area as an introduction to discussion of the excavations at Snusgar and East Mound. The prehistoric burial mounds will be considered briefly before looking in more detail at the mound archaeology on the southern and then northern slopes of the bay.

Fig. 4.06: looking north-east across the Bay of Skaill showing the northern higher land and the string of modern farms; East mound under excavation is in the centre © BSLAP.

Prehistoric mounds: Fig. 4.07

As well as the mounds visible on surrounding hills Viking-Late Norse inhabitants of the bay would have encountered other mounds across the centre of the bay. A group of tumuli once scattered the flat mid-bay area (no. 90): only two can be distinguished today. Antiquarian investigations of the mounds were re-assessed recently and the mounds interpreted as a group of Early Bronze Age cist burials (Lysaght 1974). A more unusual cist, which may once have been under a mound, was discovered during modern sand quarrying on slightly higher ground half a kilometre north-west (no. 89; Dalland 1999). A free-standing stone cist had been constructed inside a rock-cut tomb and contained both inhumations and cremations. A further prehistoric burial mound (no. 87) probably stood near Skara Brae, south-west of the mound cemetery in the bay centre; and possibly another cist burial just close to Lenahowe out on the northern headland (no. 88). By the Viking-Late Norse period these burial mounds had been supplemented by those of a probable Pictish long-cist cemetery on the south-western coast-edge (no.80: discussed below). The extensive Neolithic settlement centred on Skara Brae would also have appeared as a connected series of large mounds in the same area (no. 81).

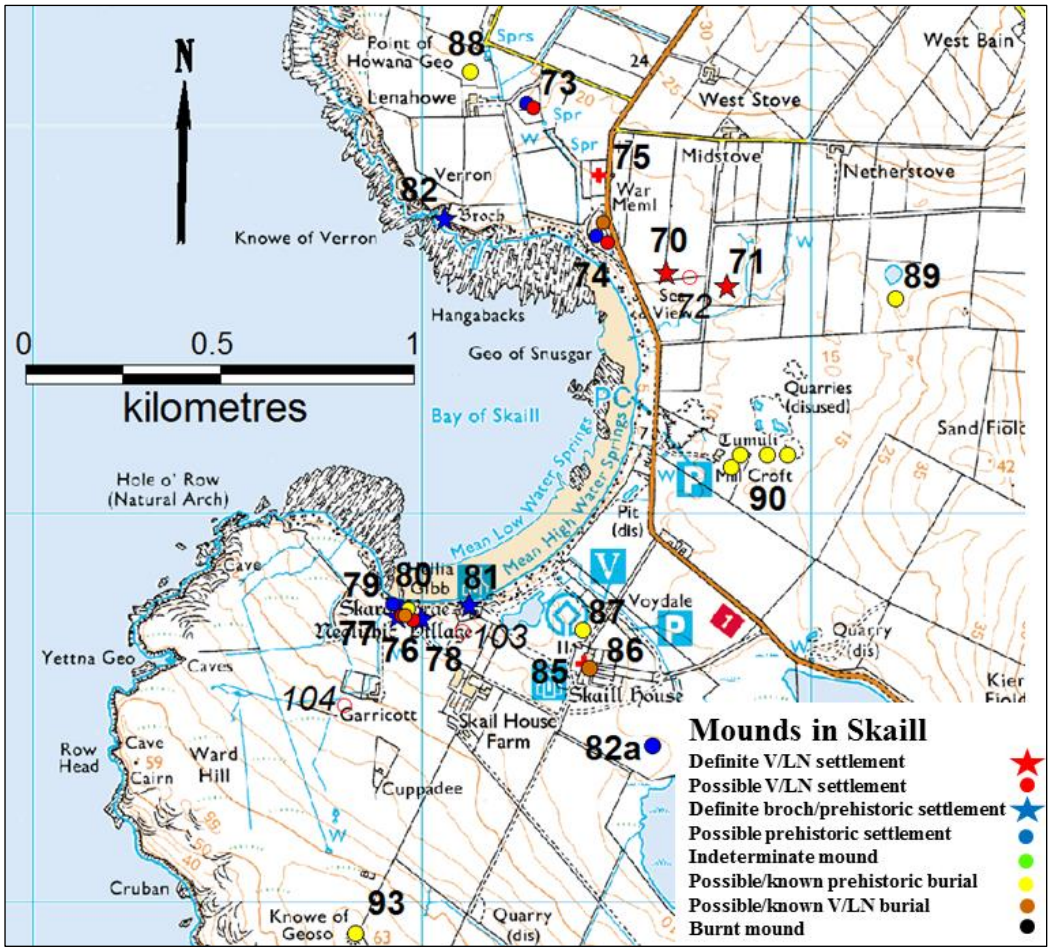


Fig. 4.07: map showing archaeological mounds in the centre of the Bay of Skaill.

Brochs

There were possibly two brochs in the bay itself, in contrast to Marwick and Birsay Bays to the north where no coastal or within-bay brochs have been discovered. The possible broch by the north-west end of the Loch of Skaill was only identified in recent geophysical survey (no. 82a), no trace remains on the ground; the badly eroded broch at the Knowe of Verron, perched on the northern headland, has been recorded in limited rescue excavations (no. 82; Fig. 4.08).[4]

[4] In a coastal survey conducted by the author in 2008 a surviving feature (HY2305 1976) c.50 m square was recorded on the cliff-top under stable grassland, comprising a central depression and double circuit of irregular banks over 1m high. Possible structural stones were visible in the inner bank and depression. In the actively eroding cliff-section contained courses of structural stone were seen and midden-type material: more of the broch had clearly been exposed and lost since the rescue excavation (Table 4.01; no. 82).

Fig. 4.08: walling eroding from the Knowe of Verron: facing south-east. Midden layers are visible above and beyond the structures.

The Archaeology of the Southern Arm of the Bay of Skaill

<u>The "Boat House"/Western Mound</u>: Fig. 4.10

A large, fast-eroding coastal settlement mound, especially visible from the beach and out on the water, lies about 100m west of Skara Brae; it is called the Western Mound in this analysis. The mound has been explored in small rescue excavations, or by surveying, at intervals over many years, and all these disconnected interventions must be drawn together to best understand the mound.[5] Doing so reveals this is undoubtedly a 'major, probably multi-period, site', encompassing both burials and buildings, including Viking-Late Norse elements (Morris 1985, 89).

The mound as currently configured begins to rise just west of a modern boat house and stretches about 100m further west, facing north-east (Fig. 4.09). The mound becomes less apparent further west along the cliff-top, where the section faces ENE, but a rescue excavation discovered archaeology in this portion (no. 79), so the site may continue for another 50m, until the beach-cliff turns to run north (Fig. 4.10).[6]

[5] The BSLAP carried out a small gradiometer survey on the south-west flank of the mound and plotted a few discrete and some clusters of archaeological anomalies; the windblown sand may mask other features (Canmore ID1674; Griffiths 2006).
[6] Modern disturbance relating to and just south of the boat house may mask the eastern edges or continuation of the mound or linked mounds.

Fig. 4.09: Skara Brae and the eroding section of the "Boat House"/western mound, looking south-west © Canmore DP00055458.

In the main section the scars and slumping of aggressive erosion of the sandy face are all too clear: flags, building stone and midden-rich sand slipped from the mound are always collected at the bottom of the cliff, although no artefacts have been reported as casual finds.[7] The eroding section rises up a maximum of 5m above the flagstone geology. Behind the eastern end of the section, the mound's gently rounded summit, nearly 30m long, lies parallel with the section-edge, dropping down steeply two metres from 11mOD in the south-east and down over three metres more gradually in the north-west (Morris 1985, 85). It is impossible to determine the original size and shape of the mound but geophysical survey suggested the full length of the remaining mound contains features, and that archaeology survives at least 20m back inland (Morris 1985, 86-7; DSR 2004).

[7] In two years from 1994-1996 between 0.3-0.9m of the cliff edge had been lost to marine erosion (James 1999, 771).

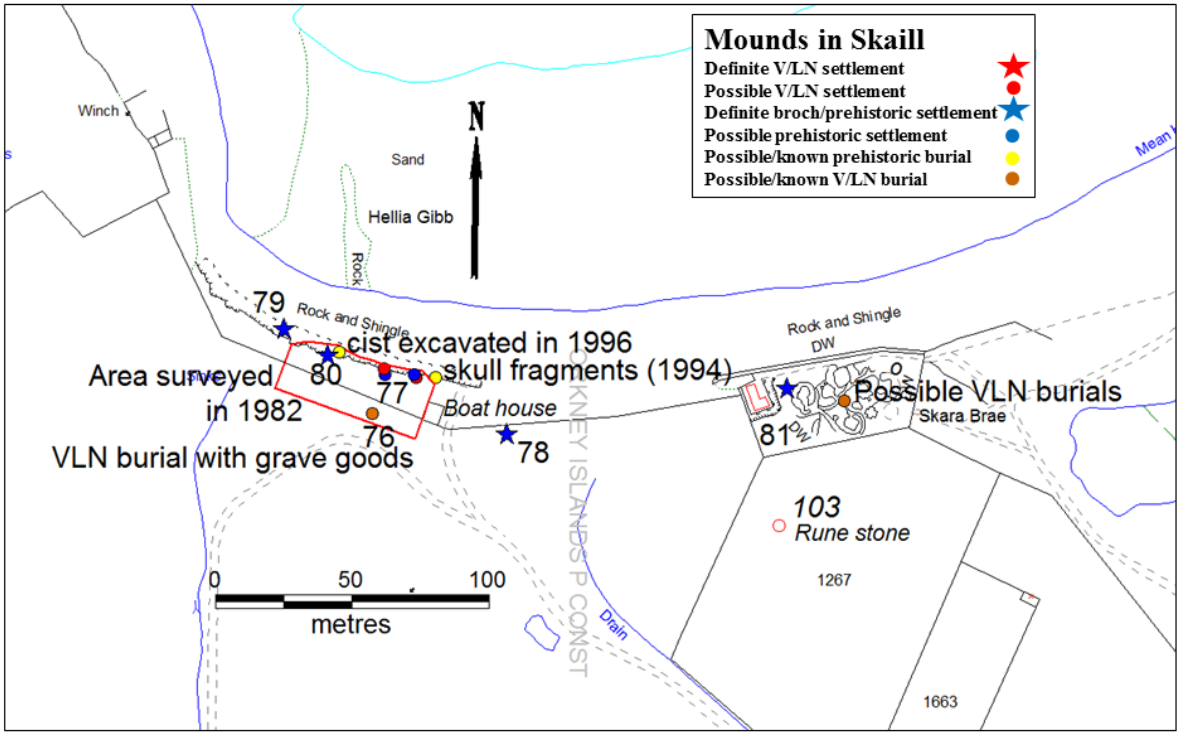


Fig. 4.10: sites and finds around the "Boat House"/Western Mound.

The first archaeology from this mound was recorded in 1888: a Viking-Late Norse long-cist burial of a man interred with a bone comb and case, an iron knife and spearhead, and whetstone, given a typologically-determined date not before the ninth century (no. 76; Watt 1888, 283-5). Although it is difficult to be certain from the report, the cist may have been cut into or covered with midden-type material as bird and fish bones were documented as well as, more unusually, a horse leg-bone. Two "pagan" stone cist burials were also discovered in the windblown sand blanketing the Skara Brae settlement (no.81); although there were no grave-goods these were interpreted as "Viking" burials (Childe 1931, 143).[8] When more recent findings of prehistoric remains in the mound, discussed next, are added to this catalogue the burial inventory of and around the Western Mound looks very similar to that along the coast-edge of Birsay Bay, with both prehistoric and Viking-Late Norse, unaccompanied and accompanied interments found associated with midden deposits (pp. 149-52).

[8] However the more recent finding of a Christian cemetery under and around Skaill House and dated from mid-eleventh to fourteenth centuries may suggest these too were Christian Norse burials, although the Skaill House burials were apparently not in cists (James 1999). James Graham-Campbell has recently suggested the burials are Late Iron Age or Pictish (forthcoming Griffiths and Harrison).

In 1994 skull fragments were found eroding from the 'wave-cut bank', so from close to the base of the section in the vicinity of the Western Mound (Canmore ID138798).[9] The bone was linked to a four-metre stretch of midden-type material in the section; both midden and skull were covered by an irregular layer of flat stones – either a cairn or flagging – which was under windblown sand. It is not entirely clear whether these were the same fragments, described as partially excavated by the County Archaeologist in 1994 (James 1999, 754), that led to a rescue excavation by GUARD in 1996, or a second similar and very nearby cist burial. The 1996 vertical-section excavation revealed the remains of a long-cist containing a prone west-east skeleton, surviving from the skull to the pelvis (no.80).[10] This skeleton was dated to between the mid-sixth to seventh centuries.[11] The cist had been cut into a 'dark humic layer' and was sealed by a sand layer covered with stones and gravel, again interpreted as a cairn. Older structural remains, including walling, were recorded just north-west of the cist and buried by the humic layer into which the cist had been constructed, with more possible building elements a metre further on (James 1999, 772). Disarticulated human bones were seen above the walling suggesting another disturbed burial. Despite excavation being limited to the cist, the investigation had recorded at least one Pictish burial above probably Iron Age or earlier buildings. This was perhaps a Pictish long-cist cemetery of burials under low cairns dug into an existing settlement mound.

Structures lower down in the section may have been Neolithic; certainly more recent investigations suggest some that phases of the Skara Brae settlement were more extensive than the consolidated area on display. More Neolithic activity had been revealed by storm damage in the 1990s between the boat house and Skara Brae (no. 78): flint Skaill knives and animal bones were seen eroding from the beach-cliff and a small excavation uncovered a wall dividing the spread of flint tools from a hearth area. This was interpreted as a Neolithic 'off-site' butchery and knife manufacture area (Richards 1994, 92). The BSLAP conducted geophysical survey over land south of Skara Brae and detected more possible archaeological features (DSR 2008). Subsequently, west of the main Western Mound in 1997 a

[9] The grid reference is only 6-figure (HY230 187) but puts the find within the area surveyed by Morris.
[10] Some of the lower skeleton had been retrieved in 1994.
[11] Skeleton date: GU-7245 AD550-668 (2σ) (James 1999, 773-4).

double-faced wall, a metre high, was recorded within dark midden deposits at a similar level to the recently discovered Neolithic butchery floor and the Skara Brae buildings (no. 79). The excavators therefore interpreted the new site as also Neolithic; geophysics suggested the wall was the back of a structure otherwise lost to erosion.

Fig. 4.11: the eroding beach-cliff section through the Western Mound.

The potential significance of the "Boat House"/Western Mound had been highlighted in 1978 when Christopher Morris made a first visual survey of the cliff-section and tried to raise sufficient funds to vertically clean back the sand-face for detailed recording (Morris 1985, 82). Although the money was not forthcoming the team carried out topographical and resistivity survey of the remaining mound and completed a photographic survey of the eroding section. They noted 'major structural remains' of at least three phases separated by deep deposits of windblown sand (ibid. 88). Stretches of walling and flagging, probably comprising two phases of building were seen at the base of the section some seven metres west of the boat house, and other structural elements observed near the top of the section. This pattern was repeated further west, and raises the possibility of later settlement lying *above* the level of the cist(s) discovered over a decade later, that were dated to the Pictish period. The antiquarian find of the ninth-century burial in the same mound may point to that later settlement including Viking-Late Norse phases. The Western Mound is clearly a complex multi-period settlement and burial mound beginning in the Neolithic period.

Other Viking-Late Norse Archaeology: rune stones and the Skaill House cemetery

There have been other indications of Viking-Late Norse activity around Skaill House and Skara Brae. Two rune stones were discovered close to the Western Mound: one probably came from Skara Brae (no. 103) of which only a few runes are legible; a second (no. 104) was found more recently, just over 200m south of the mound, having been reused as building stone at Skaill Home Farm, and is inscribed with the beginning of a "raiser formula", '*Þorfinnr reisti…*' or 'Thorfinn had this raised' (Barnes and Page 2006, 117–214).

A significant discovery was made when drainage work was conducted to the east and south of Skaill House in 1996 and areas of a medieval cemetery were uncovered (no. 85). Initially in salvage work six uncisted skeletons were recorded south of the house, and a possible cist noted.[12] Subsequent excavations in two small areas around the pipe-trench found seven more articulated burials and remains of up to 14 more individuals (adults and children), inferred from disarticulated bones found in cemetery soils and grave back-fill (Fig. 4.12; James 1999, 762-768).[13]

In Area A in the south-east corner, below over a metre of windblown sand, was a west-east aligned row cemetery: 12 upright stone grave markers, two flat slabs and two groups of flat cover slabs were found dug into sand with two skeletons. Five west-east aligned burials (Skeletons 9-13) were recorded in Area B, dug into sand. Three of the burials were much nearer the surface; two were deeper. The old ground surface related to the cemetery sloped up to the north and may have formed a now-levelled mound.[14] No grave-goods were found in any of the areas. Five radiocarbon dates taken on skeletons showed the cemetery was in use from mid-eleventh to late-fourteenth centuries, and then submerged in sand.[15]

[12] No further evidence was discovered for cist burials in the subsequent excavation but the first area to the south from which these skeletons were rescued was back-filled before further archaeological work could be undertaken and nothing more could be found of the cist burial to the east (James 1999, 756).
[13] All the upper teeth of two adjacent burials (Skeletons 7 and 8) had been lost or extracted while the individuals were alive. Daphne Home Lorimer who analysed the bones suggested either disease was responsible or they were 'victims of some cultural practice where the teeth were deliberately removed' (James 1999, 765).
[14] There is still a tumulus in the field to the north of the House (no. 86).
[15] The radiocarbon dates calibrated to 2σ were: GU-7240 (SK8) AD1160 to 1384; GU-7241 (SK5) AD1242 to 1389.

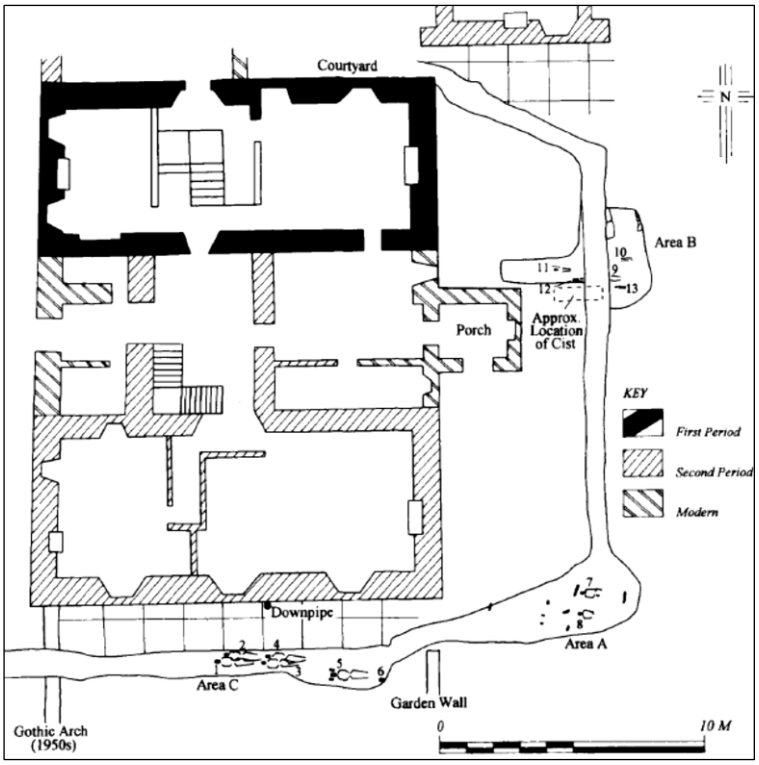


Fig. 4.12: Plan of Skaill House with the locations of the excavated areas and burials, from James 1999, 757.

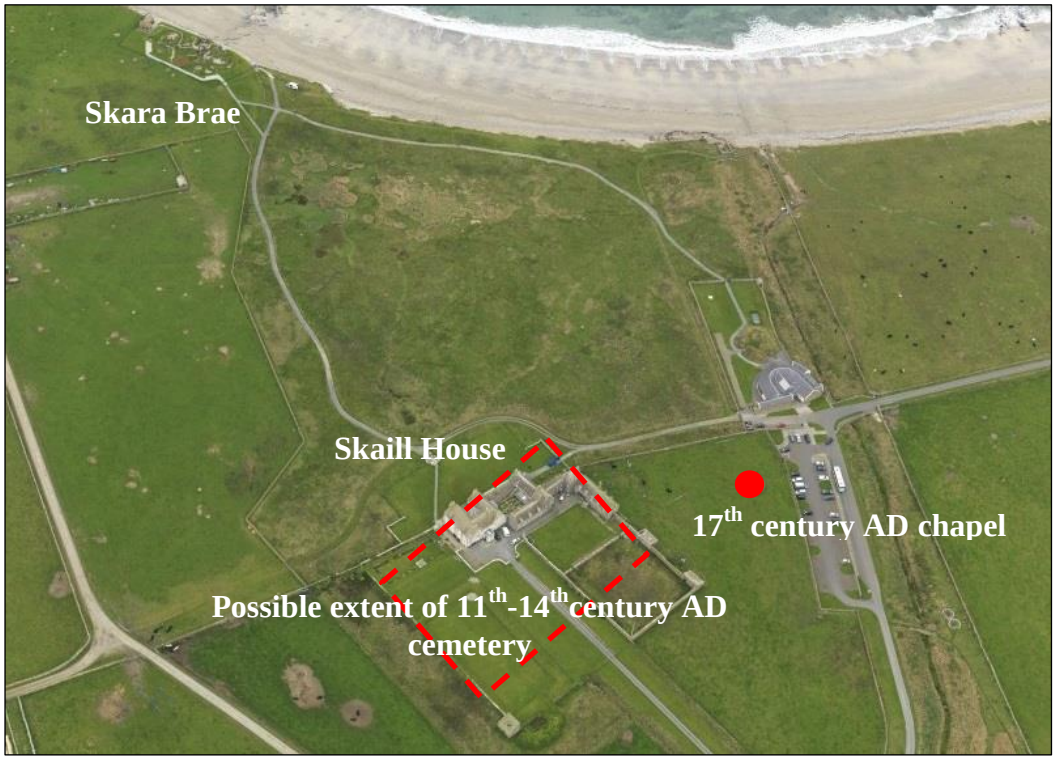


Fig. 4.13: Indicating the location of the eleventh-fourteenth century cemetery and later chapel. Base photo © Google Earth.

Conclusion

The date of what was obviously an extensive medieval cemetery raises a number of interesting questions.[16] A chapel was noted in 1679 at Skaill House, doubling as a Circuit Court, and in 1879 the ruins of this structure were recorded about 100m north-east of the House in Chapel Field, where stones are still ploughed up and a slight rise is visible. This chapel may have replaced an earlier one, linked to the graveyard, when the current House was erected in the seventeenth century. The dates of the burials suggest any earlier building may have originated as the private chapel of a local leading family (Gibbon 2007, 239). This raises the probability of a Late Norse (and perhaps earlier) high-status dwelling in the immediate vicinity, contemporary with the Christian cemetery. That settlement remains to be discovered and may even – as at Marwick Bay – have originated at some short distance from the chapel/graveyard on the coast. But was it built before the graveyard began to be used, or at the same time, or did the focus of settlement shift around AD1100? The Viking-Late Norse accompanied burial (no. 76) suggests activity before c. AD1050, so there may have been a c. ninth- to eleventh-century Viking-Late Norse settlement on the coast, perhaps on the "Boat House"/Western Mound. Settlement in the Later Norse period may then have shifted closer to the present Skaill House and a chapel. The main activity at the longhouses excavated in the *north* of the bay, on the East mound and Snusgar (nos 71 and 70), ended around the mid-to-late eleventh century, with the structures continuing in use as farm out-buildings. Was this then the period during which settlement moved inland from the coast in the south of the bay, and in the north from the sandy mounds around Snusgar to the higher ground to the west?

[16] Graves were also found under the floor in the central hall in the 1930s and in the walled garden south of Skaill House in the early 1990s (Irvine 2009).

The Archaeology of the Bay of Skaill: the Northern Bay: Fig. 4.14

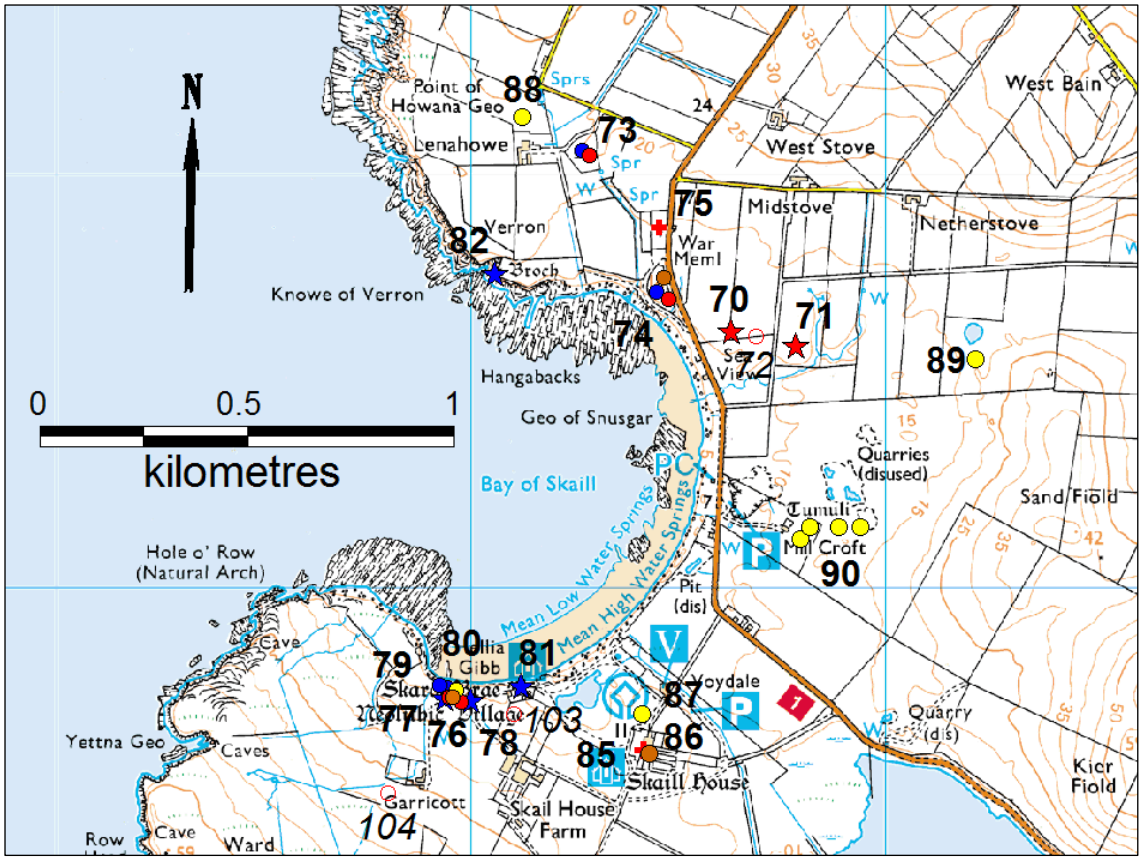


Fig. 4.14: archaeological mounds in the Bay of Skaill.

The broch (no.82) and prehistoric burial mounds (nos 88-90) were discussed above; it is possible that more small burial mounds like no. 89 have been obscured by windblown sand. It remains to consider the catalogue of known/excavated and possible settlement mounds (Snusgar and the lower mound linked with it to the north-west no. 70; East Mound no. 71; and nos 73 and 74). The parish church of St Peter (no. 75), the Skaill Hoard (no. 72) and the author's recent coastal survey will be studied briefly to provide context (Harrison 2007). In the undulating rough, sandy pasture dominating the bay below 15mOD it is likely that other mounds may be formed around archaeological deposits. Although gradiometry can often detect such layers, the depth of windblown sand can frustrate even this prospection method. Only excavation can infallibly distinguish between natural and archaeological mounds in these extensive sand drift landscapes (Fig. 4.15).

Fig. 4.15: looking east from mound no. 71 across the sand mound landscape.

<u>The Skaill Hoard</u>: (no. 72; Graham-Campbell forthcoming)

The Skaill hoard, one of the largest and richest of Scotland's Viking-Late Norse silver hoards, was found in a slope somewhere on or close to Snusgar mound in 1858 having been deposited no earlier than around AD950-970. The meaning of hoard deposition is much debated but its presence indicates that people of power and wealth were active in the Bay of Skaill in the later-tenth century.

<u>St Peter's Kirk</u>: (no. 75)

There is no proof yet that St Peter's developed from an eleventh-century private chapel, as Sarah-Jane Gibbon has argued was the case for many parish churches.[17] The foundations of an earlier structure were revealed during minor work around the kirk in 2003 but these probably belonged to the ruins of the seventeenth-century church onto which the present kirk was built in 1836. Petrine dedications in Orkney were once regarded as indicating early, pre-Norse chapels but as yet no archaeological or historical evidence has confirmed this hypothesis (Lamb 1989, 260-271 and 1995, 9-27; Gibbon 2006, 243). However, St Peter's Sandwick is located next to a possible Viking-Late Norse settlement mound (no. 74) and a mound stands in the graveyard (Fig.4.16). The possibility of an early chapel on this site, linked with the two, possibly three Viking-Late Norse settlements within half a kilometre, cannot be ruled out.

[17] Although St Peter's has many of the characteristics Gibbon proposed as defining such churches: see fn. 29 (Gibbon 2007, 239).

Fig. 4.16: St Peter's Kirk looking north at the mound by the church © Wayne Easton 2011.

<u>Possible settlement mounds</u>: nos 73 and 74

There is some confusion about the exact location of the mound named "Castle of Snusgar" despite the name being applied to mound no. 70 on the 1882 First Edition Ordnance Survey map.[18] The *OSA* noted that on the west coast of the parish of Sandwick, close by the sea-shore 'is to be seen the ruins or remains of a large building, which yet bears the name of the Castle of Snusgar' (458), then in 1831 reference was made in a dispute over landownership to 'a mound of stones *on the sea beach* called the Castle of Snewsgarth' (my italics; Irvine 2009, 173), and an 1834 *Plan of the Township of Scarwell* marks the Castle of Snusgar close to the shore near the mouth of the Burn of Snusgar (DSR 2005, 9; Fig. 4.30). By the time the *NSA* was compiled (1834-5) no traces of any building could be seen. Although a stone longhouse was discovered on mound no. 70 by the BSLAP (see below) it *could* be inferred from these earlier references that the "Castle" ruins were observed on mound no. 74 closer to the shore and indeed with a beach-cliff erosion section.[19] Furthermore in the *Original Name-Book*

[18] The "castle" name should not be taken to describe a high-status defensible site, as the term seems often to have been used simply to denote prominent stone ruins. The Snusgar name probably comes from ON *snus* ('nose/ prominence') and ON *garðr* ('farm/dwelling').

[19] Even the East mound no. 71 might be considered as a candidate for the Castle, although less convincing than no.74: a stretch of wall from the longhouse on the East mound survived, sticking out of the sand, well beyond the medieval period to be used as a temporary windbreak by kelp-burners.

entry for the Castle of Snusgar the site is described as '⅛ mile [c 200m] south of the Parish Church': mound no.74 lies 195m south of St. Peter's, the mound called Snusgar over 300m to the south-east. So it might be that mound no. 74 was once crowned by substantial stone ruins (Fig 4.17).

Fig. 4.17: St Peter's Kirk and mounds nos 73 and 74 looking south-east © Canmore image DP00068088.

In the 1930s, when the coast-hugging road that ran to the kirk around the base of mound no.74 was threatened by erosion, a new route was cut through the mound. One of the workmen employed on the job had laboured on the recent Skara Brae excavations and reported seeing walling, and midden containing animal and fish bone, and bone pins similar to those from Skara Brae, in a slope 'adjoining the work area'. Four uncisted skeletons were also discovered without grave-goods about three metres down in sand, below a 'double layer of midden deposit' (quotes from Canmore ID1676). The sketchy details are tantalising. The walling and midden-type material could be prehistoric or Viking-Late Norse (simple bone pins of these periods look similar), and the skeletons Pictish or Viking-Late Norse. Geophysical survey conducted by the BSLAP was frustrated by modern disturbance and ferrous contamination but there appeared to be archaeological deposits (DSR 2010). The coastal survey

undertaken in 2006 recorded a long, actively-eroding archaeological section with structural elements and midden just south-west of the site (Harrison 2007, 80; Fig. 4.19). Mound no. 74 is almost certainly a large, sandy settlement mound including burials (reminiscent of Saevar Howe on the Bay of Birsay), next to an ecclesiastical site, and although it cannot be characterised with more certainty there is certainly an 'extensive association between high-status settlement and parish churches' (Gibbon 2007, 245).

Fig. 4.18: looking south-east across mound nos 73 and 74.

Mound no. 73 lies next to the farm called Lenahowe, ON *haugr* ('mound') (Fig. 4.18). Considerably less is known about this site. What is only adds to the confusion about ruined stone buildings on the northern side of the bay referred to as the "Castle". In 1907 *The Orcadian* reported a large stone construction at 'Linahowe' covering around an acre (4, 000 m^2); the 1946 *RCAHMS* noted traces of a structure known locally as "The Castle", in an overgrown enclosure immediately east of the croft of 'Linnahowe': the enclosure can be seen on the First Edition as well as later OS maps. In 1967 the mound was still known locally as the "Castle" and the farmer at Lenahowe recounted how, when a silage pit was dug in the south-west side of the mound, a good deal of stone, ashes and old bones were revealed (OSMR ID1905). In the still overgrown enclosure a large, badly damaged mound can be detected today.

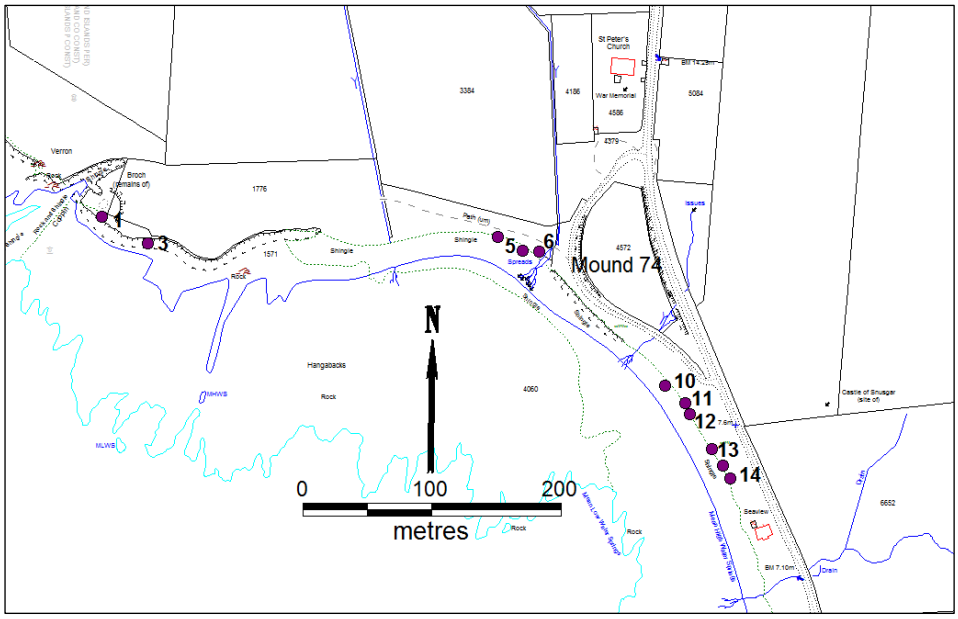


Fig. 4.19: sites of 2007 coastal survey, nos 5-6 indicate the location of the long archaeological section.

Excavations at Snusgar (HY2365 1964) no. 70 and East Mound (HY2381 1959) no. 71

Despite the confusion about the location of the "Castle" ruins, the mound referred to as Snusgar has been of interest since the discovery of the Skaill hoard. Although some had suggested it might be natural, geophysics conducted by the BSLAP in 2004 revealed a wealth of archaeological anomalies (Griffiths 2006; Griffiths and Harrison 2005; Harrison 2007; Morris 1985, 85). A subsequent gradiometer survey of the East mound – given that name by the BSLAP – also demonstrated some archaeological content (discussed in Harrison 2007). Both mounds were subsequently excavated by the Project and found to contain considerable Viking-Late Norse remains.

<u>Introduction and Summary</u>: using DSRs 2004-2008, 2010-2011; Griffiths and Harrison 2011a-c and forthcoming; Harrison 2007 and 2013a-b.

These two mounds, excavated from 2004 – 2011, are the type sites for this study. Unlike many previous excavations of Viking-Late Norse sites, the buildings and contemporary middens, as well as the mound profile were all examined, alongside thorough environmental sampling and radiocarbon dating programmes. During the work the author was able to undertake a detailed study of the processes and materials involved in building the sequence of Viking-Late Norse structures and in increasing the size of the mounds themselves. Building techniques and the storage and usage of

midden were closely observed. Many seasons working there prompted questions about why Viking-Late Norse people had chosen to live in such exposed locations, what they thought about the landscapes they over-looked, and how that was reflected in the way their settlement was constructed.

The Snusgar mound, although only a little higher, appears much more prominent than the East mound, but has been badly eroded. Ploughing and cattle trampling over centuries had severely damaged the longhouse discovered on the flat top. The internal floors and features of the longhouse had been lost but remnants of the northern and southern walls survived along with midden layers. Radiocarbon dates indicated the longhouse was in use from possibly the late-ninth century into the eleventh century. A long trench (Trench 4), down the south-eastern flank of the mound, uncovered deep, extensive deliberately structured midden layers of a similar period.

By contrast, preservation of the Viking-Late Norse buildings on the East mound was excellent: a 26m-long longhouse was exposed, with a western "cookhouse-end" and byre/workshop east end, and a flagged yard and smaller ancillary building to the south (Trench 5). During the earlier phases of Viking-Late Norse settlement a metal-working area had been established west of the ancillary building. The dating of the five phases of activity associated with this longhouse was rendered difficult by taphonomic and stratigraphical complexities but the first buildings were constructed by the tenth century, the main phase of use was eleventh century and domestic use of the building ended around the close of that century.

Fig. 4.20: Snusgar mound on the left with the white caravan in front and East mound, the more diffuse hillock in the right foreground with people on the summit, looking north-west.

Midden-type deposits

Midden-type material was ubiquitous within and around the longhouse complexes, its presence obvious in the otherwise pale windblown sand matrix. The following ways in which this material was used within the Snusgar/East Mound settlements were observed, and formed the basis for the table of mound-related building techniques (Table 4.02) against which all excavated sites were compared during the process of analysing them afresh, specifically as settlement mounds.

1. **Accumulation/storage**: the storage of midden-type material for future use. The most familiar use, where the highly organic by-products of agricultural and domestic activity are heaped in a midden composed of both discrete dumps, and of more regular and incremental additions of waste, often rich in ecofacts and artefacts (e.g. east of the East Mound ancillary building and immediately south of the Snusgar longhouse; see Fig. 4.21);
2. **Spread midden (or "sheet midden")**: constructed immediately around buildings. Midden-type material mixed in various proportions with surrounding sand layers, to create more stable and functional working/pedestrian surfaces for people and animals. Often combined with patches of rough flagging (e.g. north of the Snusgar longhouse and around the ancillary buildings on East Mound);
3. **Structured midden**: a combination of sandier 2 with more organic 1, and usually much more stony. Laid down deliberately to build up mounds and stabilise slopes, and held in place by spreads, arcs and rough, low walls of stones. The resulting layers were sometimes, like spread middens, used as work-zones – sometimes necessitating the levelling of midden surfaces – or for storing piled midden (e.g. the slopes of Snusgar, south of East Mound buildings and Pool [Sanday]);
4. **Yard floors**: combining "clay-like" greasy cooking residues, fine ash and sand to create firm work-floors. This waste must have been collected separately to produce this particularly effective and practical surface (e.g. East Mound metal-working yard);
5. **Internal floors**: ash-dominated, silty sand floors produced by mixing floor-sand with hearth-rakings, as well as some fuel-ash slag and burnt peat/turf and seaweed (e.g. East Mound buildings);
6. **Wall-core/fill and wall-backing**: a combination of stone-shatter, sand and midden-type material creating a firm filling for double-faced dry-stone walls and strong backing for single-face

walls; often eco- and artefact-rich and producing "doubly-residual" finds. Such finds were first stored in a midden pile, then re-used in the wall and often found on excavation in wall-fill collapsed onto later surfaces (e.g. all buildings on both mounds);[20] and

7. **Infilling and levelling**: finds-poor midden-type material used in just sufficient quantity to hold together large volumes of windblown sand. Used to infill structures for rebuilding, producing what is often referred to here as "slightly organic windblown sand" (e.g. ancillary building, East Mound).

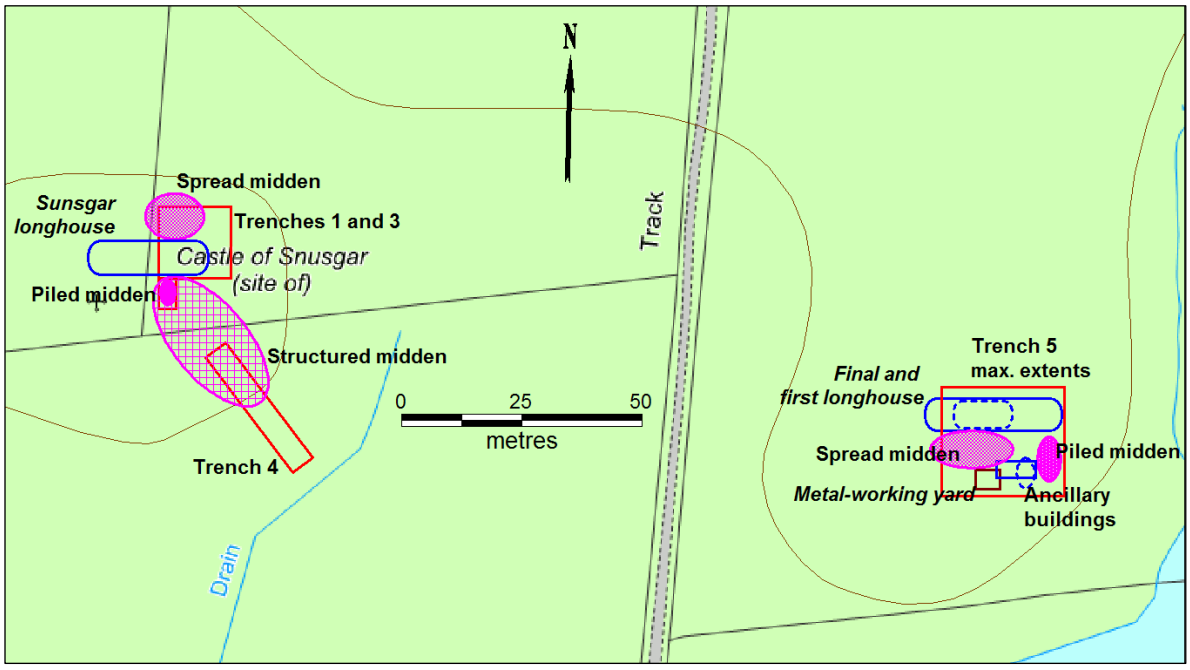


Fig. 4.21: indicating the trench locations and the main elements of the archaeology on Snusgar (left and East Mound (right).

Snusgar Mound

Two trenches were excavated on Snusgar (Fig. 4.21). Trench 1 on the flat summit (max. size 15m by 15m; with a 3m by 8m extension, Trench 3), uncovered the very badly disturbed and truncated remains of the eastern end of a large longhouse, about 6.5m wide by perhaps 28m long,[21] with walls over a metre thick, and surrounded by piled midden and spread midden surfaces. Trench 4 (max. size 5m by 30m) reached right down the south-east slope of the mound on the other side of an

[20] For this reason finds are not at all reliable as *chronological* indicators on these and similar sites: Snusgar and East Mound were dated by constructing a relative, phased stratigraphical matrix, to be pinned down to absolute date ranges using OSL and radiocarbon dating. Only then were the finds looked at as typological/chronological rather than functional items.

[21] Only about 8m of the eastern end of the longhouse were uncovered in Trench 1: the full length of the building was detected using geophysics.

inconveniently-placed stone-dyke from Trench 1. That long trench allowed investigation of the composition and structure of the mound and the Viking-Late Norse structured middens. In the excavated areas the longhouse was constructed into windblown sand without incorporating or re-using any immediately preceding settlement. However, a land-surface in Trench 4, below the Viking-Late Norse middens and under nearly two metres of sand gave a date of cal AD240–410:[22] there may have been earlier Iron Age settlement on the mound, but there was apparently a hiatus in activity before the longhouse was built.

Chronological phases were established for both mounds for the Viking-Late Norse period, as follows (Hamilton et al. in Harrison and Griffiths forthcoming):

- Phase 2: late-ninth to early-eleventh centuries;
- Phase 3: tenth to early/mid-eleventh centuries;
- Phase 4: (a process of rebuilding only found on East Mound) mid/end-eleventh century;
- Phase 5: eleventh to early-twelfth century; and
- Phase 6: later-eleventh to twelfth centuries.

Fig. 4.22: Trench 4 under excavation; the summit to the right of the stone dyke was the site of Trench 1.

[22] (SUERC-17851).

The Snusgar longhouse and associated deposits: Phases 2, 3 and 5

The longhouse floors were very disturbed and fragmentary, but midden-rich wall-core (1053) had been used in constructing the walls. Midden-type deposits to the north and south of the building had survived better. To the north, layers of spread midden, producing Viking-Late Norse artefacts, (1017/1013; Phases 3 and 5; Fig. 4.23) had built up over a midden-rich surface close to the wall – the latter probably laid to provide a surface when the longhouse was being built. The micro-topography of the spreads indicated that the contemporary mound had dropped away more steeply to the north, demonstrating how later accumulations of windblown sand masked the original landscape configuration. To the south of the building an area of Phase 3-5 piled midden was investigated, including dumps of peat-ash and sandier, more slowly accumulated layers (1038/1047).

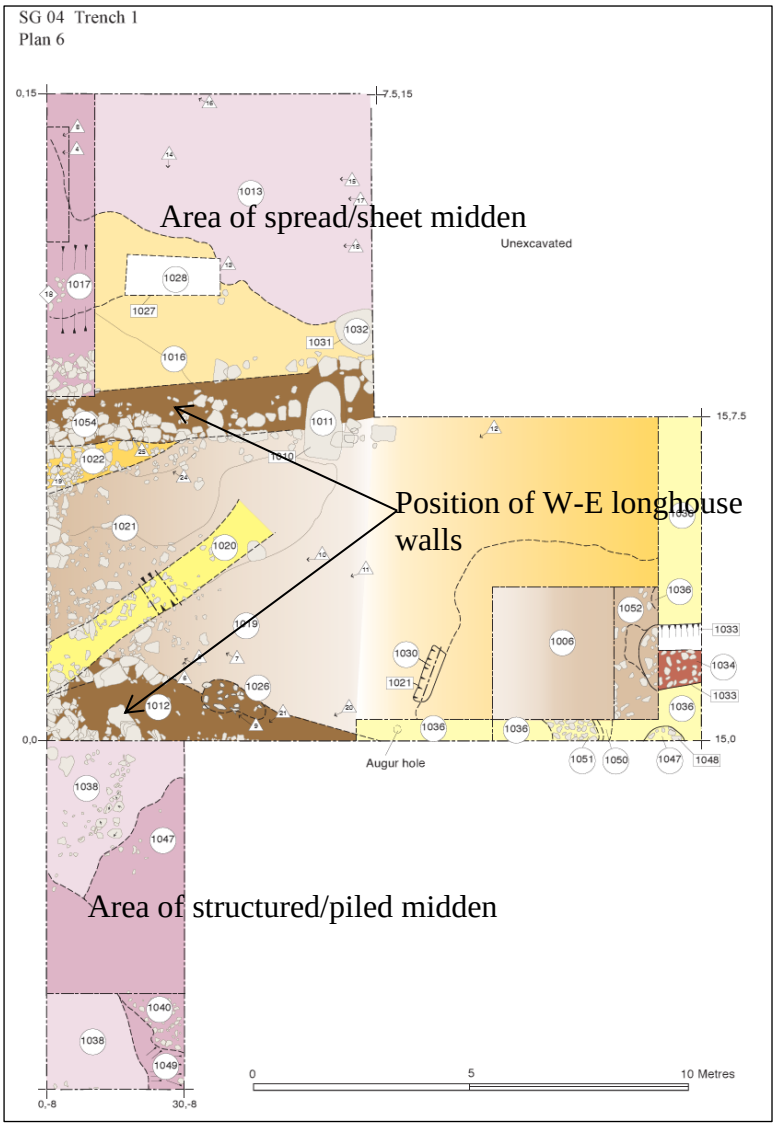


Fig. 4.23: Trenches 1 and 3 showing the outline of the longhouse and the areas of midden ©BSLAP.

Snusgar structured midden

The layers in Trench 4 were examined in a long narrow trench exposing the sequence from pre-Viking-Late Norse windblown sand accumulations to the top of deep, varied and complex structured midden deposits (Fig. 4.24). From this trench it was obvious how much of the mound was constructed of archaeological midden-type layers. An originally more modest mound had been given bulk as its sides were built up with midden spreads: these started near-level and closer to the core of the mound and gradually became more sloped and spread out. This process produced challenging to interpret reverse stratigraphy at the edges of the mound, where later layers of spread midden had slipped down-slope and settled physically below earlier ones. These layers also demonstrated how much effort and skill had been expended on combining sand, stone and midden-type material to build up and stabilise the sandy mound, and at times, to fashion work areas. Arcs of stone were arranged to hold spreads of midden in place (as in context 1505);[23] and stone-shatter was incorporated into spread midden to help anchor the sandy layers (such as 1556). There was no surviving evidence for the more decidedly wall-like arcs of stone holding midden in place as reported at Pool (Sanday), but a similar intention was clearly at work (pp. 315 ff.). There was good evidence however for the deliberate levelling of spread midden. Although the surface had been truncated by immediately subsequent erosion the single pass of plough-marks on midden layers 1555/1519 (later Phase 2) recorded the levelling of midden-layers to create a practical surface. Throughout, the accumulation of midden-type layers, fine lenses, small pockets and more extensive drifts of sand testified to the effects of major storms, or times when activity was less intense or had shifted to another area of the mound.

One of the more extensive spread middens (1504) was especially interesting, producing not only abundant Viking-Late Norse artefactual evidence, such as combs and pins, but also evidence the surface had been used for meat and shell-bait processing, and processing gannet carcasses trapped systematically elsewhere,[24] as well as possibly for comb manufacture. When these areas were used for

[23] These stabilisation layers had to be carefully distinguished from the post-depositional run-off and accumulation of stones down-slope from stony layers.
[24] See Mainland (Griffiths and Harrison forthcoming): the gannets had been trapped by the leg in the same manner.

tasks, waste was discarded straight onto the sandy surface. This layer probably accumulated towards the end of Phase 3, when the longhouse to the north was flourishing, and contemporary with the first and smaller East Mound hall-building. The faunal evidence suggests that in this phase more young animals were being butchered for eating, rather than bones coming from the carcasses of older animals kept for wool and milk. The latter suggests a regular agricultural regime; the former more of an emphasis on feasting.

Fig. 4.24: part of the structured midden in Trench 4, looking north-west.

The longhouse on Snusgar would have been imposing and visually prominent, buttressed by piled midden and surrounded by spread midden-type material. The building would have dominated any approach across land from the south or east, or into the Bay from the sea. Over time the mound increased in bulk as structured midden layers accumulated. The midden slopes were also used as the need arose for making artefacts, butchering, and dealing with bird-carcasses. This was a busy farmstead/hall, and also one whose role within the larger dispersed mound-settlement including the East Mound altered over time.

East Mound

The longhouse complex on East Mound, excellently preserved under deep windblown sand, was probably built perhaps as early as Phase 2 and buildings were still in use in Phase 6.[25] Much of the Phase 5 internal stone-based furniture of the longhouse had survived, including bench-fronts, in-floor storage boxes, stone settings supporting wooden or wattle space-dividers, hearths, paved pathways and, up into the ancillary building, a flight of six steps (Fig. 4.25).

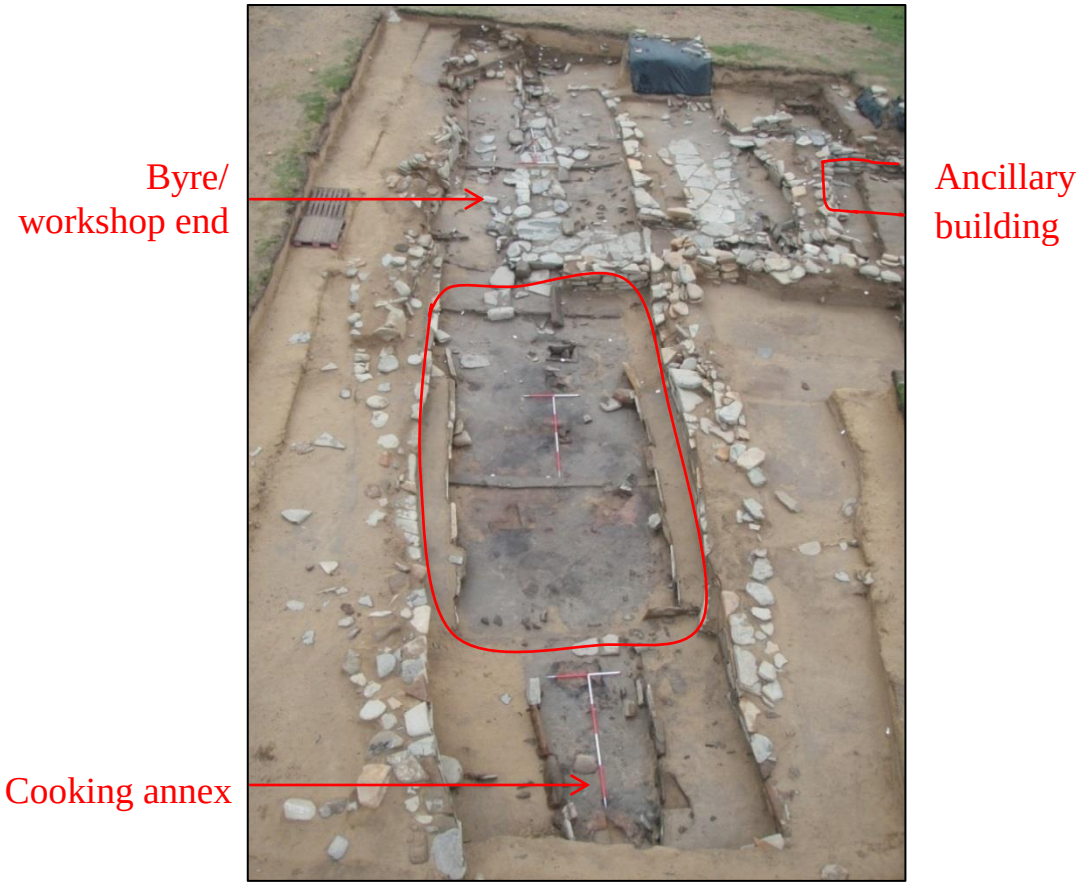


Fig. 4.25: looking east down the centre of the Phase 5 longhouse on East Mound with locations of Phase 3 buildings outlined in red.

Many of the artefacts were residual, have been found in midden-type material of various sorts and in the wall-core of collapsed walls; however, a few artefacts – especially inside the buildings – were intrusive, having slipped down through sand lenses by stone walls and furniture. Dating was established using Bayesian analysis of radiocarbon dates. Preservation of faunal remains, ecofacts and charcoal was very good. Although East Mound appears much less dominant than Snusgar it is also

[25] The highly organic layers within the remains had shown up as an uneven patchwork of gradiometry highs and lows on the geophysics, within which no structural shapes could be discerned (discussed in Harrison 2007). However it is now clear that such indeterminate results are valuable indicators of settlements (Dockrill et al. 1994).

well-located for visibility. The excavation team built a turf-longhouse on the summit of East Mound and it was seen and commented on from all around the bay.

Phases 2 and 3: A small hall-building about 10m long and 5m wide[26] aligned west-east was built perhaps in Phase 2 and lasted through Phase 3 (Fig. 4.25). It was dug into the mound's northern slope just off the crest, and joined from its eastern entrance by a paved path, over a soakaway drain, to a small building a few metres south. The hall-building had side-benches running the length of each side but apparently no internal dividing walls. The southern, probably also domestic, north-south aligned structure was only 2.5m wide and at least 4m long, surrounded by a paving-covered drainage system. In Phase 3 piled midden began to accumulate to its east, initially contained by curved walling that may originally have belonged to pre-Viking-Late Norse buildings. There were also hints of earlier walls beneath the floors of the north-south structure.[27] To the west lay a small metal-working yard 2.5m by 3m which was sheltered by half-walls on three sides, open towards the northern hall-building and roofed. Within this yard four bowl-shaped hearths for smithing iron were constructed and used sequentially, leaving abundant charcoal, hammerscale, iron-working slag and fuel-ash slag. The buildings and the yard were used through Phase 3, but within the buildings only small patches of floor survived Phase 4-5 activity.

Phase 4: captured major changes made to the small southern building: the western wall was partially demolished and the whole area within and west of the building levelled-up nearly a metre with sandy, spread midden (2072). A rectangular west-east aligned building (2.5m by 5.5m) was then constructed re-using the lower courses of the eastern and northern walls of the Phase 3 structure but with an entirely new western wall.[28] Part of the original paved drainage system was sealed beneath the building and used as solid foundations for the flight of steps now needed to take people from the central yard up to internal floor-level. The yard, between the buildings, was well-paved with large

[26] All measurements are internal, not including the thickness of the walls: most walls are between 0.75m and 1m thick.
[27] These could not be investigated further without entirely demolishing the Viking-Late Norse phases.
[28] The Phase 3 southern wall was completely demolished in later agricultural activity.

flags. The new walling in the west was built over a redundant metal-working hearth: all the structures within the metal-working yard were dismantled, a new yard-floor laid and fourth low wall added.

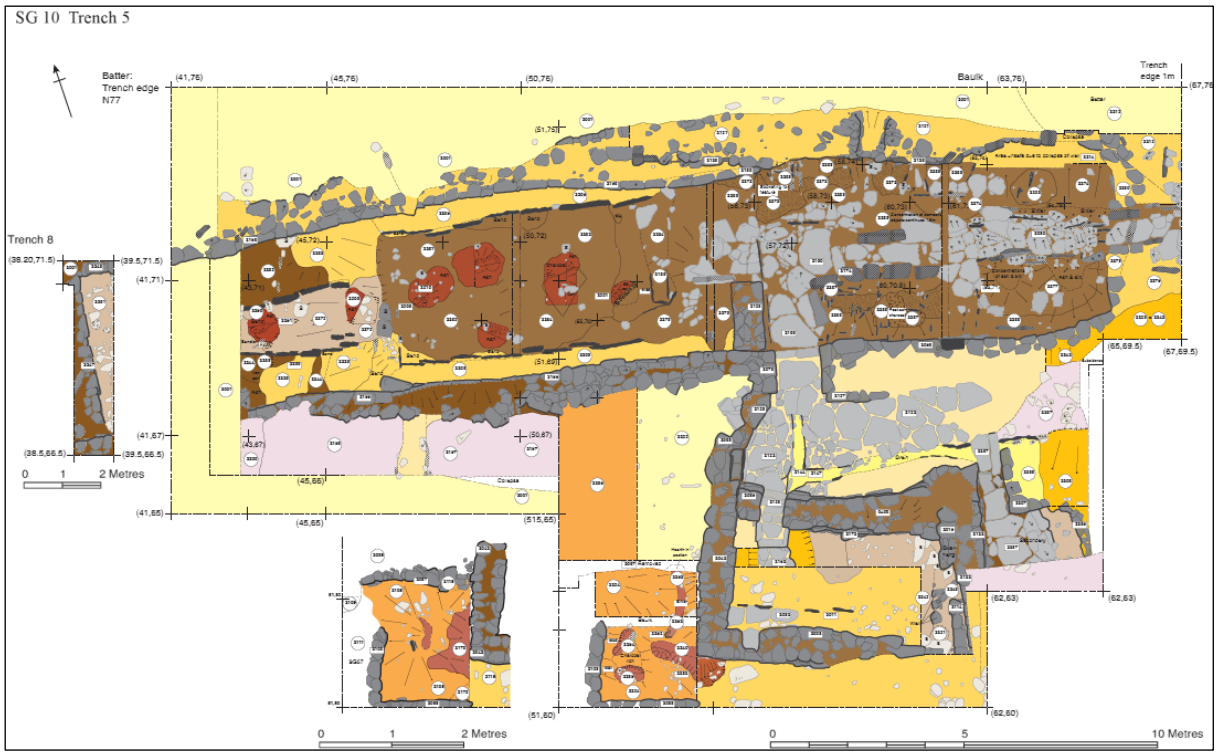


Fig. 4.26: the East Mound Phase 5 longhouse, with ancillary building to the south © BSLAP.

Phase 5: covered the use of the new rectangular ancillary building, probably a workshop/storage area, and the much altered hall-building (Fig. 4.26). It was not possible archaeologically to capture the *process* of change in the hall in the same way, but by Phase 5 a byre/workshop end 11.5m long had been added to the eastern end, and a cooking annex 7.5m long to the western end of the longhouse. The southern side of the byre had four small stalls separated by wooden panelling and to the north, on the other side of the paved soakaway drain, was a workshop area with arrangements of supporting-stones for shelves and work-benches. The central paved drain-corridor of the byre ran into the eastern entrance of what was now the domestic part of the longhouse. A dividing wall [2135] had been built out from the southern wall to create one side of the entrance: on the other side of the short paved entrance passage was a cupboard. Within the area encompassing the whole Phase 3 hall-building the side-benches remained but the southern door was blocked. A small iron-smithing hearth [2310] was built into the floor near the door with a stone-lined quenching box [2281] close-by. There was no large

rectangular central hearth but rather a number of smaller hearths distributed across the floor. The western cooking end had wide side platforms and cooking-pits.

The change in use of the ancillary building and the addition of a byre to the longhouse corresponds to an alteration in the faunal assemblage: in Phase 5 the remains were mostly of older animals kept for their wool and work-capacity as well as meat. The settlement was perhaps changing from one focused on meeting and feasting, to a large but more conventional farmstead. The Phase 3 hall-building had been a flexible, potentially multi-functional interior space (Barber 2003); the succeeding longhouse was a more typical farm building but nonetheless retained a large open domestic/meeting space.

Phase 6: In this phase the longhouse was abandoned but used intermittently as an unroofed animal pen. Both the metal-working and central yards were covered with spread midden or collapse layers from the longhouse. The ancillary building was shortened to produce a small near-square building, used as a workshop, storage shed and probably chicken house. Its use became increasingly intermittent and the building was, by the end of the phase, neglected and filling with sand.

East Mound longhouse, ancillary buildings, yards and middens: Building techniques and midden layers (Table 4.02)

Each phase of the hall-building then longhouse settlement on East Mound provided evidence for the use of midden-type material and, because of the excellent structural survival, for the building techniques demanded by repeated rebuilding in the same increasingly mounded location.

Phases 2 and 3: Patches of the internal floor (2146) of the hall-building survived by and under the dividing wall [2135] and under later flagging. These were highly organic, ashy, finely-laminated layers containing relatively few artefacts: sand compacted together with micro-refuse, silty remnants missed in cleaning and above all peat-ash from the hearths. The latter must have been both deliberately spread and accidently trampled across the floor. The floors in the metal-working yard (2215/2234) were also laminated and sandy but strikingly different to the house-floors. Clay-fine and greasy cooking residues mixed with hearth-ash had been collected and then combined with sand, some

locally-occurring yellow clay, and spread with peat-ash, wood-ash rakings and charcoal from the metal-working hearths themselves. This produced a firm greyish floor which was clearly regularly cleared and patched.

The midden-type material piled to the east of the ancillary building was a mix of discrete deposits and more slowly-accumulating layers, rich in peat-ash, bone, shell and artefacts (e.g. 2204) – more characteristic of accumulated domestic waste. These types of dark organic midden were those raided for material to amalgamate with fine stone-shatter and sand to pack the centre of the double-faced walls: for example the collapsed north-east corner of the rectangular building (2041).

Phases 5 and 6: Floor layers survived from Phase 5 in both the domestic 'hall-end' and the byre/workshop. The upper laminations were the product of cattle-trampling in Phase 6, which mixed floor-material with turf from the collapsed roof and animal waste. But below this zone the floors survived as finely-laminated ashy, organic and sandy spreads patterned with the shallow pits, burnt sand and peat-ash of hearths (22261-2264; Figs 4.25-26). The byre floors (e.g. 2268/2272) were also composed of amended sand, but with a different composition: less peat-ash, more vitrified fuel-ash slag and overall less domestic-origin organics (from cooking/food preparation) and more influenced, especially around the stalls, by animal fodder and waste (DSR 2010).

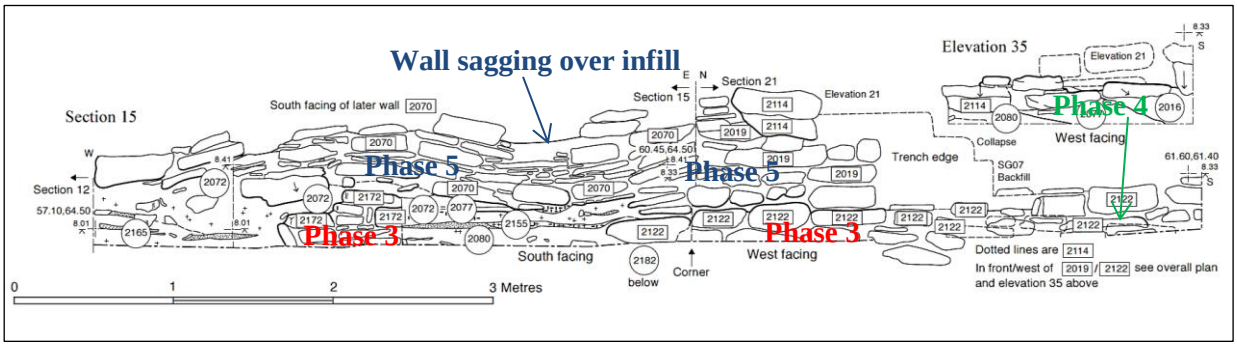


Fig. 4.27: Elevation showing the complexities of the rebuilt walls of the ancillary building.

The realignment of the Phase 3 southern building as a rectangular building in Phases 4-5 was a typical example of the architectural techniques applied to rebuilding on the same spot. Sand mixed with just sufficient midden-type material was spread quite deeply over the dismantled western wall to create a new interior, level with the sixth course of the remaining original walls. This near metre-deep infill

was contained within new walls partly built up from Phase 3 walls. No effort was made to match type of wall-stones or coursing. The eastern wall of the Phase 3 building [2122] had been slightly bowed: to straighten it as a foundation for the new longer wall, a facing was added to the interior of the bowed section [2114]: this involved digging the facing foundations down through the original Phase 3 floors. For some reason the bowed northern wall was not refaced in this way and the interior courses of the wall built over it sagged into the infill (Fig. 4.27).

The same disregard for matching the appearance of old and new walls was seen in the longhouse to the north. Although the walls of the Phase 5 byre-end were badly damaged and robbed during medieval field-wall building and modern sand-quarrying, the difference between the less blocky stones used in the original hall-building and those used in the byre/workshop remained obvious. But the clearest indication that this non-matching was deliberate was seen in the south wall of the domestic hall of the longhouse [2199]. A large foundation stone – the beginning of the curve inwards at the end of the original hall-building – was left in place jutting into the end of the benches. To the east were courses of the original wall with more varied stone sizes, uneven coursing and smaller stone-packing; to the west the more regular sizes and courses of the extension, with the join clear and demarcated by the protruding stone (Fig. 4.28).

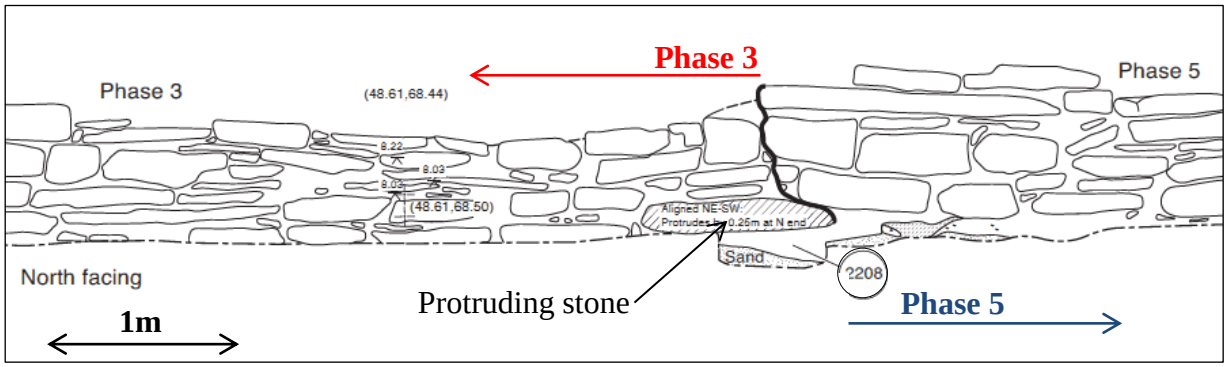


Fig. 4.28: Phase 3 and Phase 5 southern domestic-hall and cooking annex wall; with protruding stone marked in diagonal lines.

Meaningful deposits of artefacts

The appearance of these buildings, and their surroundings, was dynamic witness to the passage of time and generations: not only functional structures, they were 'permeated by cultural significance,'

(Stoklund 1984, 98). This was signified by deliberate locational stability, and reinforced by the deposition of artefacts in the settlement in such a way that their laying in that place can only have been purposeful. A large fragment of an usually decorated, stone rotary quern was found sunk into an area of the Phase 3 floor, otherwise virtually finds-free, near what became and probably was originally the eastern way out of the hall (SF200; context 2146). A partial but articulated cat skeleton was also found in this part of the hall in Phase 5: possibly buried at the entrance when the passage-way to the new byre-end was built (2275). The north-south wall of the Phase 5 ancillary building, and the wall-extension joining it to the longhouse had a number of cattle mandibles used as packing between courses [2042] and [2088]; and a whetstone was discovered wedged between courses of the longhouse's northern wall [2198] – it must have been jammed into the cooking annex wall as it was being built (SF233). But most obviously – and echoing a similar if less complex comb deposit at Langskaill (Westray) (p. 251) – a complete bone comb (SF108; context 2115) was discovered placed under flagging laid in the southern building at the end of the use of the complex as a place to live. The comb was accompanied by three sherds of a very distinctive, imported twelfth-century glazed pottery decorated with spots (SFs 107, 110-11), an iron candlestick unusual in Orkney (SF109), and articulated dog bones. The inhabitants were perhaps marking their move away from the mound to a farm elsewhere by leaving a deposit of treasured objects, including a favourite animal.

Conclusion

The excavated Viking-Late Norse longhouses on the Bay of Skaill were built in highly visible mounds. Location seems to have been paramount in choosing sites: first the general area, then a prominent place with wide views. The Snusgar and East mound complexes were visually dominating, surrounded by productive land, near the sea, and overlooked both bay-land and sea. Mounds clearly constructed around earlier buildings were not necessarily sought out: there may possibly have been small standing buildings or ruins on East Mound when the first hall-building was planned, but there was almost certainly a hiatus of over three hundred years between Iron Age activity and Viking-Late Norse building on Snusgar. Any preceding settlement would have been blanketed in sand. Thus the

Viking-Late Norse people had sought a good area in which to live, chosen a site well-placed to oversee that area and to be seen, and then proceeded to follow mound-building and architectural practices which enhanced the mounded character of the location

Many other mounds were visible from these two excavated, slightly inland longhouse mounds: smaller prehistoric burial mounds to the south and east, the mounds accumulated over Skara Brae and perhaps remains of the brochs by the Loch of Skaill (no. 82a) and out on the coast (no. 82) (Fig. 4.14). These mounds had to be worked into the new communities' landscape understanding. Several other settlement mounds, some at least also lived on, would also have been visible: south of St Peter's (no.74), at Lenahowe (no. 73), on the coast to the south-west (no. 76-80) and possibly at Skaill House (no. 86) and Skaill Farm (Fig. 4.32). What is more difficult to assess is which of the settlement mounds and possible chapels were contemporary: East Mound and Snusgar overlapped in time, but the remaining possible settlement mounds remains have still to be securely identified and dated.

Skaill Place-names

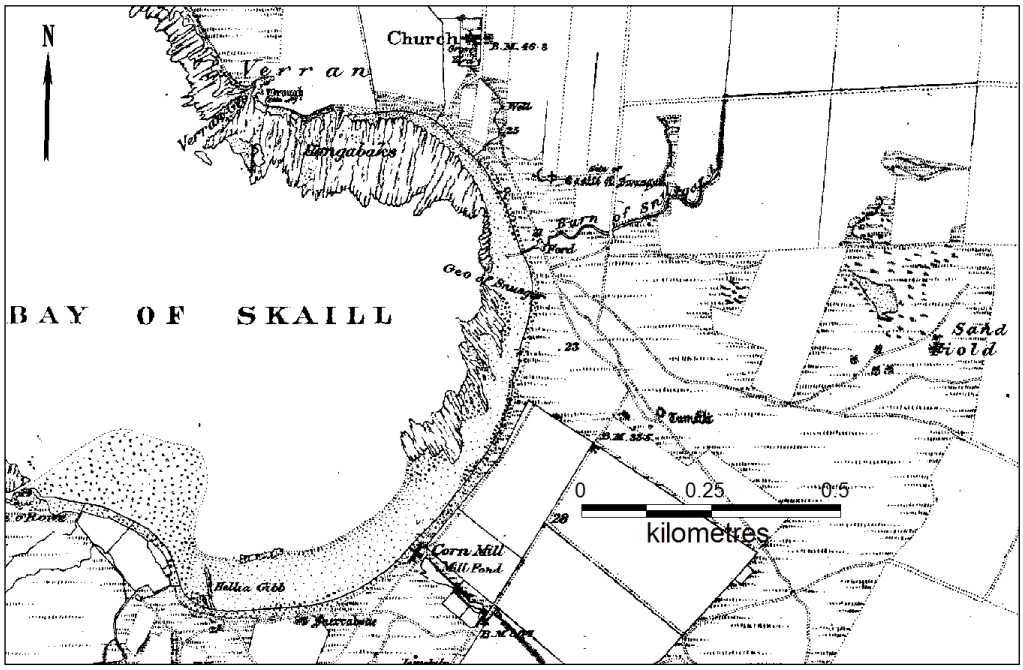


Fig 4.29: the Bay of Skaill on the 1882 Ordnance Survey map.

Today, the Bay of Skaill is relatively sparsely populated with much of the housing clustered around Quoyloo to the north. The 1882 map demonstrates clearly how settlement by that time moved from

coast-edge locations; only a corn mill remained by the beach (Fig. 4.29). However, the main farms were still within areas of windblown sand deposits: in the south Skaill House certainly was, while the Mount, now Skaill Home Farm, was located on the edge of the sand distribution. Lenahowe and West Stove in the north, like Home Farm, were on the margins of the windblown sand, on slightly higher land. In the south a string of small steadings had been built above 20mOD, off the sand. The houses built after 1882 – such as Midstove and Netherstove in the north – are in similar sand-edge locations along/above the 20mOD contour, except for Seaview, a modern bungalow perched above the beach-cliff.

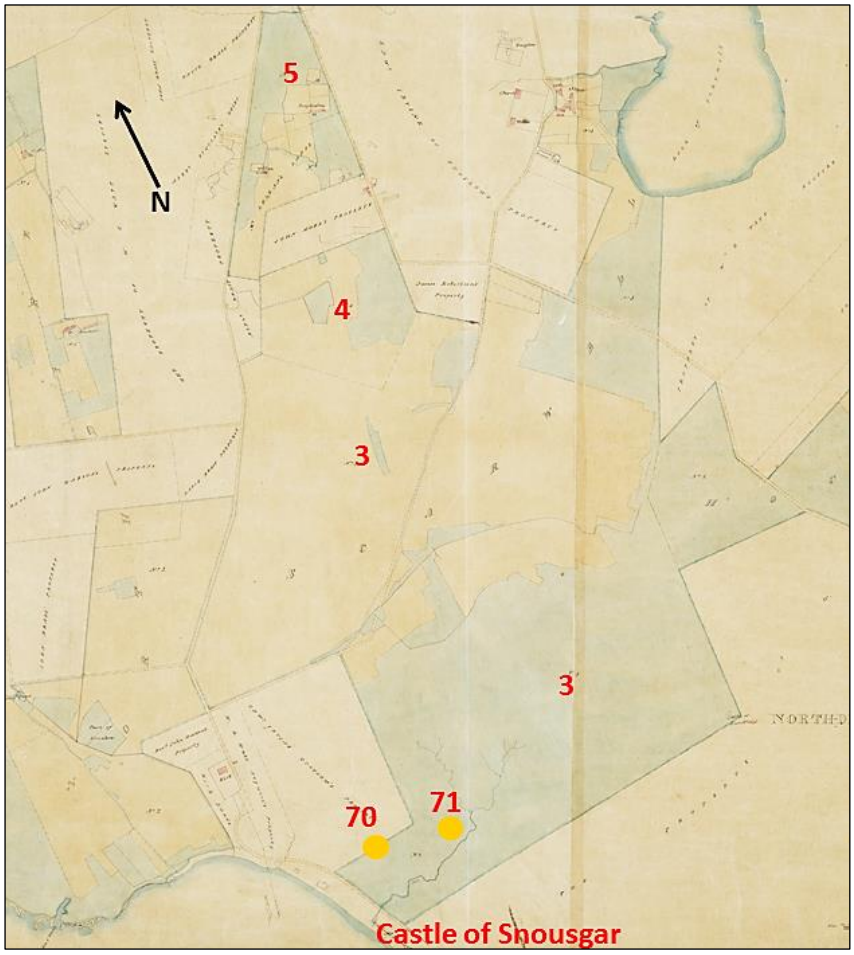


Fig. 4.30: detail of an 1849 plan of the Townships of Northdike, Scarwell and Housgarth showing the extent of Scarwell (location of the long-vanished Langskaill). The key lists areas 3, 4 and 5 – numbers highlighted in red - as belonging to Scarwell (mostly Crownlands coloured blue and beige). Snusgar and East mounds have been added showing that the latter is within Scarwell and the former (70) divided between the Crown lands and the property of an Irvine. The 'Castle of Snousgar' is marked on the coast where the burn reaches the beach: also highlighted.
http://catalogue.nrscotland.gov.uk/nrsonlinecatalogue/details.aspx?reference=RHP2890&

The Skaill House and Bay of Skaill names are the obvious place-names of interest. West Stove in the north may indicate the location of later (post-twelfth century) settlement (Crawford 1999, 58-61), its past importance indicated by a range of Stove names suggesting a divided larger holding (Stove is one kilometre north-east of Midstove and Netherstove). Hugh Marwick investigated the names of Marwick and Birsay Bays in detail but not those of the Bay of Skaill. However, in *OFN* he lists a 'long vanished' Langskaill in Scarwell, the tunship in the north of the Bay (see discussion in Chapter 8; Fig 4.30). Marwick provides no further information or details about the source of the name. The presence of the later Stove focus and the possible Langskaill name in the north does suggest the Bay of Skaill was divided into northern and southern areas in the Viking-Late Norse period (and see below).

Summary: the Bay of Skaill settlement pattern

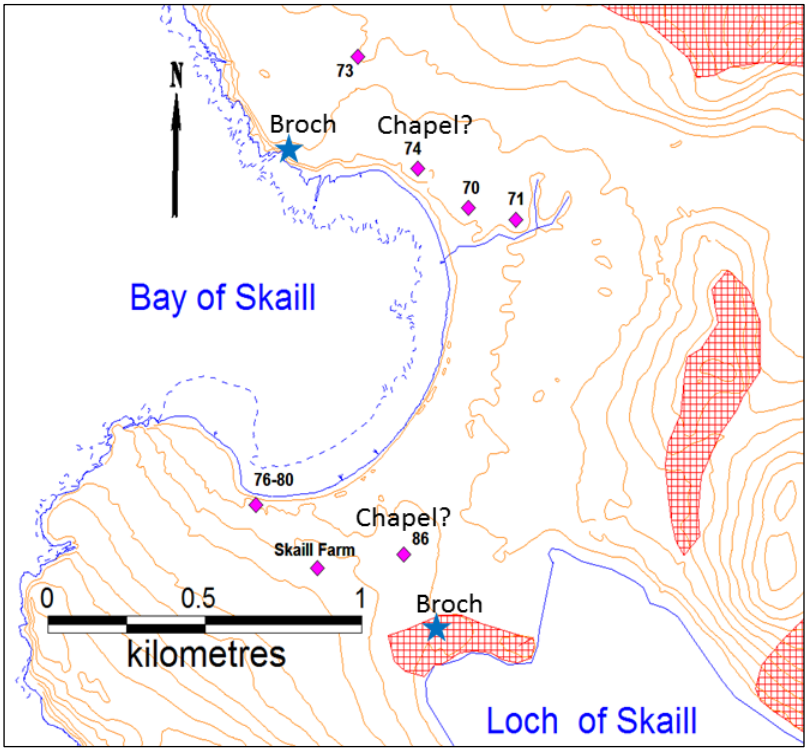


Fig. 4.31: known/hypothesised settlement mounds on the Bay of Skaill shown with pink diamonds: red hatching indicates deep top-soils.

The possible distribution of settlement mounds with known/probable Viking-Late Norse elements is shown in Figure 4.31. This proposes two broadly contemporary and locally-important settlement foci north and south of the bay centre. The place-name evidence touched on above appears to support this

hypothesis. And, Sarah Jane Gibbon in her study of the development of medieval parishes in Orkney pointed out that as late as the *Rentals* of 1492 and 1505 the Parish of Sandwick was still assessed as two separate entities – North and South Sandwick – indicating the larger parish was based on pre-parish 'smaller significant units' (2007, 243). There may, therefore, have been Viking-Late Norse settlement in the south focused around the coast and/or Skaill House, and in the north in the general vicinity of Snusgar, with the possibility of an early private chapel in each area.[29] These northern and southern clusters of settlement mounds may also have comprised linked coast-edge/near coast and slightly inland mounds. Thus, in the south the Western Mound was at least partly contemporary with Viking-Late Norse settlement around Skaill House (and possibly Skaill Home Farm, which sits on a considerable mound: Fig. 4.32), and in the north, Snusgar and/or East Mound were contemporary with the mound south of St Peter's. The excavated "inland" longhouses on East Mound and Snusgar were not found to be built directly over earlier buildings, whereas on the coast-edge the mounds re-used in the Viking-Late Norse period were constructed more obviously above earlier buildings and burials.

Fig. 4.32: Skaill Farm, very prominently located on a possible mound-site, looking south-west.

There is a difficulty of course in discussing a settlement pattern with relatively little secure dating evidence. However, there is ninth- and tenth-century archaeological evidence from the excavated mounds in the north, and probably the burials on the coast-edge to the south, and eleventh-century

[29] Gibbon (2006 and 2007) argues that private chapels began to be founded by leading local families from around AD1050 after the establishment of a permanent Bishopric in Orkney. These chapels were on good (and often earldom) land; less than 500m from the coast; near a broch/major Iron Age site; near high-status settlement of the Viking-Late Norse period (Gibbon suggests 300m); and not centrally located in the established parishes. Parish churches Gibbon proposes were established from about AD1137, when Kirkwall cathedral was founded, and as a 'consequence of a combined process of ecclesiastical and secular centralisation' (2007, 235). These churches were often created out of existing private chapels.

evidence from burials around Skaill House and, in particular, from East Mound in the north. A similar distribution of settlement mounds was also discovered in Marwick Bay (Chapter 4[2]) and Birsay Bay (Chapter 4[3]): comprising slightly inland skaill-sites close to chapels looking towards contemporary, near coast-edge mound settlement.

Chapter Four (2): archaeological mounds around Marwick Bay, West Mainland

This section looks at the distribution of archaeological mounds in Marwick Bay in their landscape context. The mounds will be examined in relation to topography, coastline and drift geology, including noting the presence of windblown sand and good landing places. The mounds themselves will be categorised where possible by period and type, and then considered in relation to one another, any skaill place-names and chapels. Finally the small rescue excavation of a coast-edge settlement mound by the BSLAP in 2009 will be examined, looking in particular at the mound-related building techniques identified in midden-sculpted settlement mounds.

Fig. 4.33: Marwick Bay looking north-west to Marwick Head across the choin.

Introduction

Marwick Bay is enclosed by hills, by-passed by the main north-south road, and has seen comparatively little archaeological investigation until recently: attention has been focused on the more obvious riches of Birsay Bay to the north and the Bay of Skaill to the south. There are no *Orkneyinga saga* references to Marwick Bay locations or people, but its place-names – which include Langskaill, Netherskaill and

Howe – have been analysed by Hugh Marwick and re-visited by William Thomson (Marwick 1931, 37-40 and 1952; Thomson 2008, 7-8). No antiquities were reported for Marwick Bay in either of the *Statistical Accounts*. However, it is clear from the dates of the Canmore/OSMR entries that the County Archaeologist spent time in May 1967 walking the hills around the Bay recording mounds. This thorough inventory slightly skews the archaeological record in favour of prehistoric burial and burnt mounds. Then, in the 1980-90s Ian Simpson analysed areas of relict deep top-soils around the bay, which may have begun forming in the earlier-thirteenth century (Simpson 1985, 1993, 1994, 1995 and 1997).[1] Finally in recent years geophysical surveys have been conducted over and around the reputedly ancient chapel site near the coast-edge (Fig. 4.35; no. 43), close to the Knowe of Flaws (no. 55), and across fields to the south (nos 42 and 44). A rescue excavation on the eroding settlement mound listed as "Viking Houses" (no. 42),[2] and also encompassed in the BSLAP geophysics, demonstrated this was a multi-period settlement mound with a Viking-Late Norse component: the details are discussed below.

Geology and Topography

Mar Wick is situated 3.5km south-west of Birsay Bay and, at just over half a kilometre wide, equates in size to the southern of the Birsay Bay indentations. Its coast-edge is similarly configured, with a narrow sweep of cobble and sand beach between wide, slanted wave-cut platforms to north and south facing a large tidal choin set in the shallow, rocky bed of the bay (Fig. 4.33).[3] An eroding beach-cliff, between less than one to three metres in height, runs behind the foreshore. Characteristic wave-cut platforms have developed on the underlying geology of Middle Old Red Sandstone. Apart from the sand on the beach and pockets of drifted sand in the hinterland, the predominant drift geology is, however, sandstone-derived glacial till; the damp, low-lying area of the bay (a sub-oval c. 0.8km by

[1] "Relict" deep top-soils were those improved by people in the past adding organic material and survive as part of contemporary top-soils; "fossil" ones are buried.
[2] The Canmore online entry claims that "Viking Houses" mound no. 42 was recorded in more detail in 1946, but this is not the case.
[3] The choin, or tidal pool, lies between the Low and High Water marks: the *Original Name-Book* notes that it is 'encircled' with a low embankment of 'loose stones which prevents the water running out at ebb tides' (*Vol. 1, Orkney*: OS1/23/1/132 accessed online 19 March 2015). It is possible the low-lying bowl of land in the centre of the Bay once held a lochan.

0.5km), now criss-crossed with drainage ditches, is blanketed with alluvium. Unlike the bays to the north and south sand-dune links have not become established behind the beach.

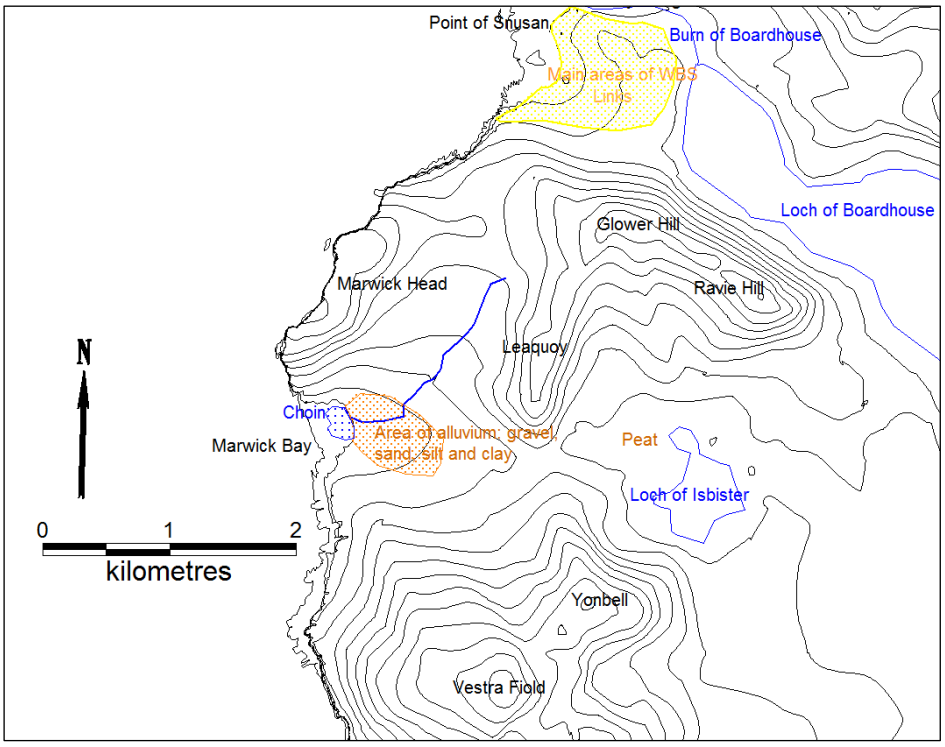


Fig. 4.34: topography and drift geology of Marwick Bay.

This bay is much more enclosed than others along the West Mainland coast: cut off from Birsay Bay to the north by the high, blunt headland of Marwick Head, which runs northeast-southwest reaching 86mOD, above precipitous cliffs noisy with seabirds. A slightly lower ridge at around 80mOD runs near north-south making, with Marwick Head, a finger and thumb running from the wrist of Ravie Hill 98mOD and Glower Hill 100mOD, which lie southeast-northwest above the south-western shore of the Loch of Boardhouse (Fig. 4.34). Two higher, more conical hills close off the bay to the south: the bulk of Vestra Fiold falling from 129mOD to steep coastal cliffs to the west, with Yonbell to the east rising to 102mOD and dropping down to the Loch of Isbister further east. The watershed between the Loch and Marwick Bay sits at around 25mOD between the lower slopes of Yonbell and Leaquoy ridge to the north. Two major streams, now culverted and canalised, run into the bay: one from the northeast, past Langskaill and Netherskaill and another, less easy to track, from the southeast.

The bay itself rises in a gentle bowl, maximum 1.2km in diameter (its drainage basin is c. 6.5km^2) to the 25m contour, within which most of the cultivated land lies. All of the known or suspected Viking-Late Norse settlement is located within this contour (nos 42, 44, 45 and 46; Fig 4.35). The substantial modern farms in this area today are Netherskaill, Langskaill, West and East Howe and Flaws, possibly ON *flaga* ('stone flags'). Other houses, many of which have quoy-names, ON *kví* ('animal fold'), spread out on the slightly higher slopes. The land rises more steeply to the hills after about 25mOD creating two short, open valleys in the north and east.

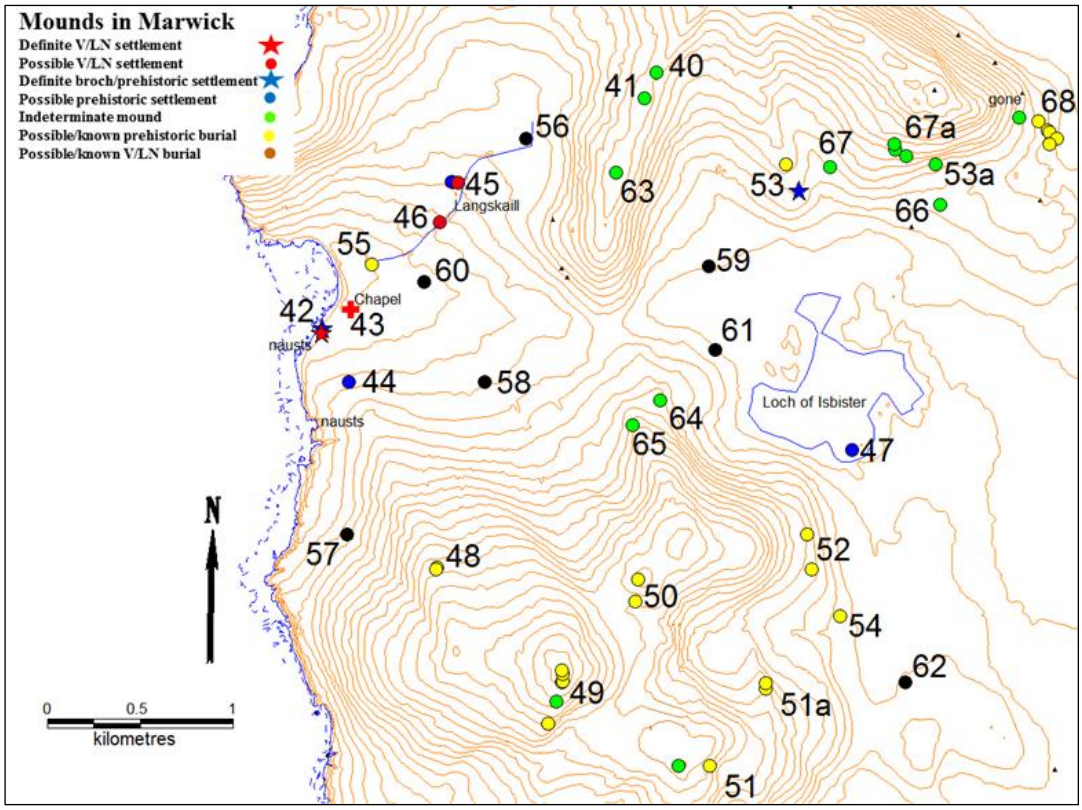


Fig. 4.35: topography and archaeological mounds around Marwick Bay.

This combination of geology and topography created an attractive Viking-Late Norse settlement location: for the more independent-minded, one a little removed from the power centre at Birsay. Although the bay is small and shallow, the landside resources were excellent. The low-lying alluvial land produced rich meadows, while the gentler slopes above were suitable for crops; the enclosing ridges and hills provided rough grazing and turf for flaying. The wave-cut platforms were and are good seaweed grounds, as well as convenient stands for shore-fishing. Sea birds and their eggs could be hunted from the sea-cliffs to north and south, and two kilometres to the east lay the different but

exploitable landscape of the loch, with its water-birds and peat. The deep-sea fishing off this coast was probably as good then as it has been more recently.

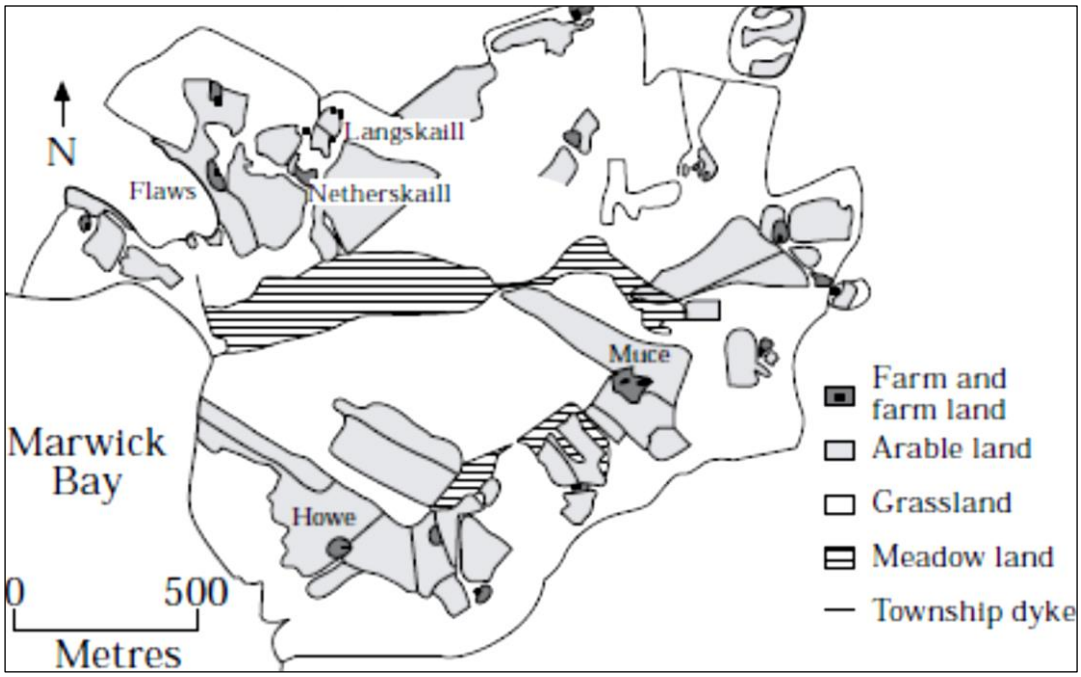


Fig. 4.36: Marwick township land use as proposed by Simpson (1997, 368) based on 1769 Map.

Marwick Bay is not a natural harbour, although the approach to the choin may have been engineered to allow easier access for small boats. That smaller craft entered the bay is demonstrated by the identification, during the BSLAP shoreline topographical survey, of several nausts (DSR 2009 Figs 4 and 5; Fig. 4.37). These six nausts lie roughly 50m south of settlement mound no. 42 and were dug into a slight rise in the ground.[4] Nausts used in recent times were recorded about 0.8km south of the centre of the bay at Sand Geo (HY22855 23510), 200m west of the farms of West and East Howe.[5]

[4] The nausts are visible as a line of grassy depressions, each one surviving to a maximum of about 4m long by 2.5m wide and roughly 0.5m deep; the southern three are eroding onto the foreshore. Remains of the stone walls which lined the nausts can also be discerned (DSR 2009).

[5] In 2014 these were recorded as: 'rectangular stone-built boatsheds, three boat nausts and two mechanical winch stands built around the top of the cliff at the head of Sand Geo. The boat sheds are roofed and are connected to the beach by a slipway' (Canmore ID345056). These are more recent structures but the sandy geo will have always been a good place to land and draw up boats.

Fig. 4.37: naust south of mound no. 42: facing south-east.

Fig. 4.38: looking south-southeast across the choin, with West and East Howe background centre.

Distribution of Mounds and Settlement in Marwick Bay: Table 4.03; Fig. 4.39

Classification challenges

The table of mound-sites records 26 archaeological mound sites around Marwick Bay. A geographical limit was drawn within which records were collected, focusing on the bay and the surrounding hills but including areas nearest the bay around the Loch of Isbister to the east. Only two of the mounds have been dated (nos 42 and 53) and very few excavated. Most of the mounds have been classified by

morphology and location. It has already been mentioned that 1960s survey work ensured a good record of small, wetland and hill-located burnt and burial mounds. The smaller barrow-type mounds were also re-visited by the1990s *Orkney Barrows Project*.

The mounds again fall broadly into two categories according to topography and size: inland and smaller, more coastal and larger. The former have been identified as burial mounds, burnt mounds or "indeterminate" (nos 48-68; excluding no. 53). Two larger mounds are within Marwick Bay and known or interpreted to be settlement mounds (nos 42 and 46); the considerable mound on which the farms of West and East Howe are situated should probably be added (no. 44). Both the modern farms of Langskaill and Netherskaill are in prominent locations looking out over the Bay, just over 500m from the beach. There are no large areas of windblown sand but there is still a considerable sand component to the soils (up to 40% sand; DSR 2009; Simpson 1997, 366).

Areas of Investigation

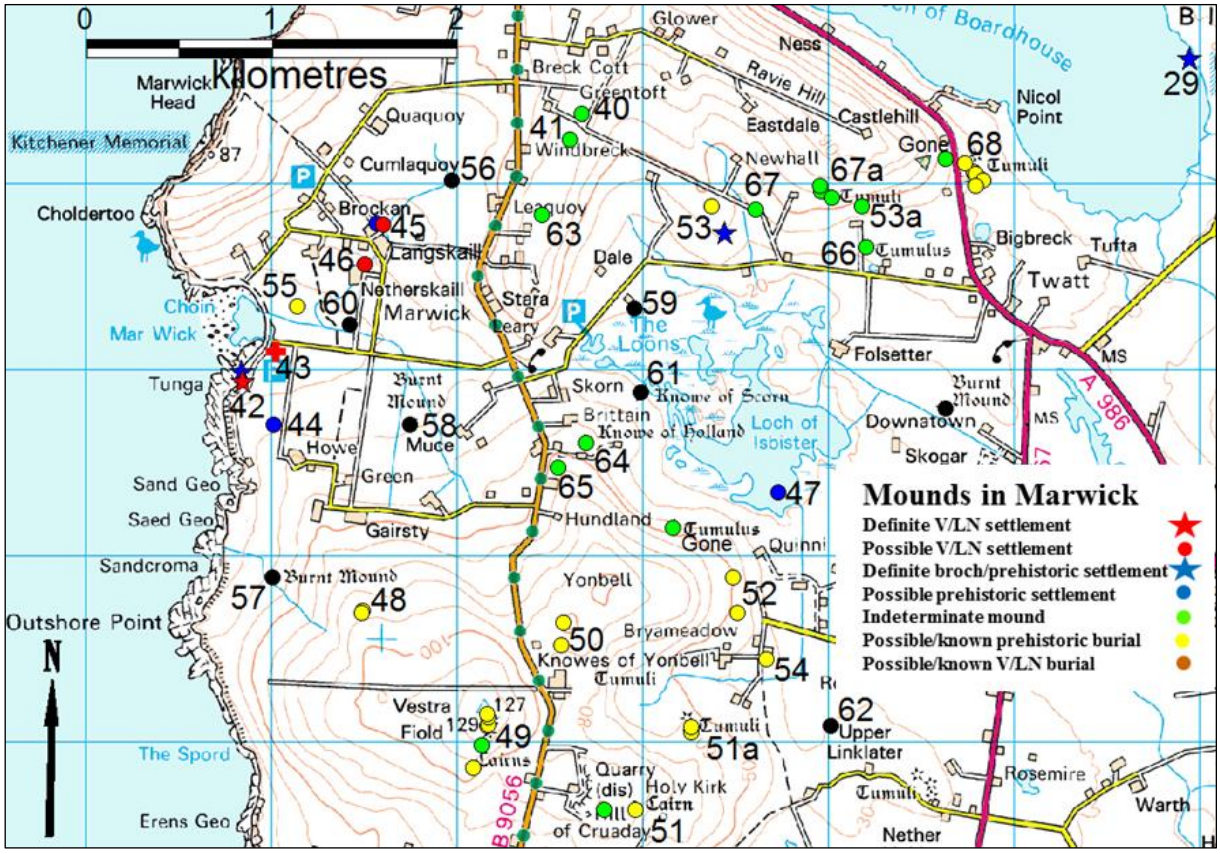


Fig. 4.39: archaeological mounds in Marwick Bay and environs: for detail see Fig 4.43.

The known/possible Viking-Late Norse settlement archaeology is clustered in Marwick Bay itself: no burials of the period have been discovered (Fig. 4.39). The only possible early chapel site is located close to the beach (no.43); there is no broch site. The known/possible prehistoric settlements are in the same area with an additional focus around the Loch of Isbister. Surrounding hills and ridges are well covered with prehistoric burial and indeterminate mounds, the vast majority well-sited to be visible. Finally there are seven smaller mounds classified as burnt mounds all of which, apart from no. 62, are obviously located by streams or in boggy places. The area around the loch and the mounds of the hills will be examined briefly before the mounds of Marwick Bay are considered.

Area 1: Hills and around the Loch of Isbister: Fig. 4.40

The mounds in these areas conform to a clear pattern: burial and indeterminate mounds (most likely also burial mounds) in visible locations on ridges, crests and dominant spurs above c. 30mOD; and burnt mounds in boggy areas near streams. These mounds are also located mainly east of the watershed, with the vast majority visible to the east or south rather than the west.

Fig. 4.40: Vestra Fiold burial mounds (no. 49) looking south towards the prehistoric quarry © Canmore Image DP00059781.

One group of identified burial-related mounds cluster on the ridges of Vestra Fiold and Yonbell (Fig. 4.40; nos 49-51a, 52 and 54), including at least 15 smaller cairns and two possible chambered cairns

(nos 51 and 54). The originally four burial mounds on Yonbell (no. 50) were likely to have been visible in parts of Marwick Bay. All the remainder look south and east: perhaps significantly the group on Vestra Fiold look towards Skara Brae and lie very close to a possible Neolithic quarry. The second major cluster of probable/possible prehistoric burial mounds scatters the south-eastern end of Ravie Hill (nos 66-68: barrow cemetery) and looks towards the Lochs. The two larger stony indeterminate mounds at nos 64 and 65, overlooking the Loch of Isbister, may be chambered cairns, but would bear re-investigation. Nos 40, 41 and 63 running along Leaquoy ridge were interpreted as burial mounds (no. 63 encompassed four tumuli), but have all been destroyed: they may have been visible from Langskaill/Netherskaill in the northern valley of Marwick Bay but also to the east, the Loch and the prehistoric settlement (no.53), recorded as of the late-second to early-first millennium BC. That settlement would have been visible from the only possible broch site in the whole of this area no. 47 (Fig. 4.41): very little is known about the site which has no visible remains, but an undated causeway.

Fig. 4.41: Isbister broch in the loch; earthworks to the right relate to the wartime airfield: looking north © Canmore Image DP00059777.

Area 2: Marwick Bay, West of the Watershed: Fig. 4.43

Fig. 4.42: remains of the chapel no. 43 looking just south of east across to the gap between the ridges at the approach to the bay from the east: mounds may once have visible on the skyline to the right. The chapel is aligned nearer to ENE-WSW.

This section deals with the mound archaeology of Marwick Bay before discussing investigations around the chapel (no.43), and the rescue excavation of the eroding coastal settlement mound (no. 42). The distribution of mounds is very different to that east of the watershed. Coming into the bay from the east between the ridge of Leaquoy and the spur of Yonbell the probable burial mounds on the crests (nos 63-65) may once have been prominent; but within Marwick Bay, as the record stands, the only known non-settlement mounds are: burnt mounds nos 56-8, associated with wetter ground on the higher margins of the bay, and the Knowe of Netherskaill (no. 60) by watercourses in the damp centre of the bay; the Knowe of Flaws (no. 55) a probable chambered cairn; and on the hill-land to the south burial mounds (nos 48-50). Of the latter mounds only the Knowe of Gairsty (no. 48) will have been visible from within the bay and probably only from around Howe. Figure 4.42 shows how mounds on the ridges to the east may have been visible from within the bay but as most have gone and others are hidden by housing we cannot be certain.

The Knowe of Netherskaill (no. 60), now a barely visible rise, may plausibly be something other than a burnt mound, and its bay-centre location makes burial mound the likely alternative interpretation. The Knowe of Flaws 300m to the WNW (no. 55) was re-classified by Raymond Lamb from burnt mound to possible chambered cairn on the basis of its location, larger size and visible stone rubble and walling.[6] The mound today is near circular with an irregular profile, confirming it has been much disturbed (DSR 2009).

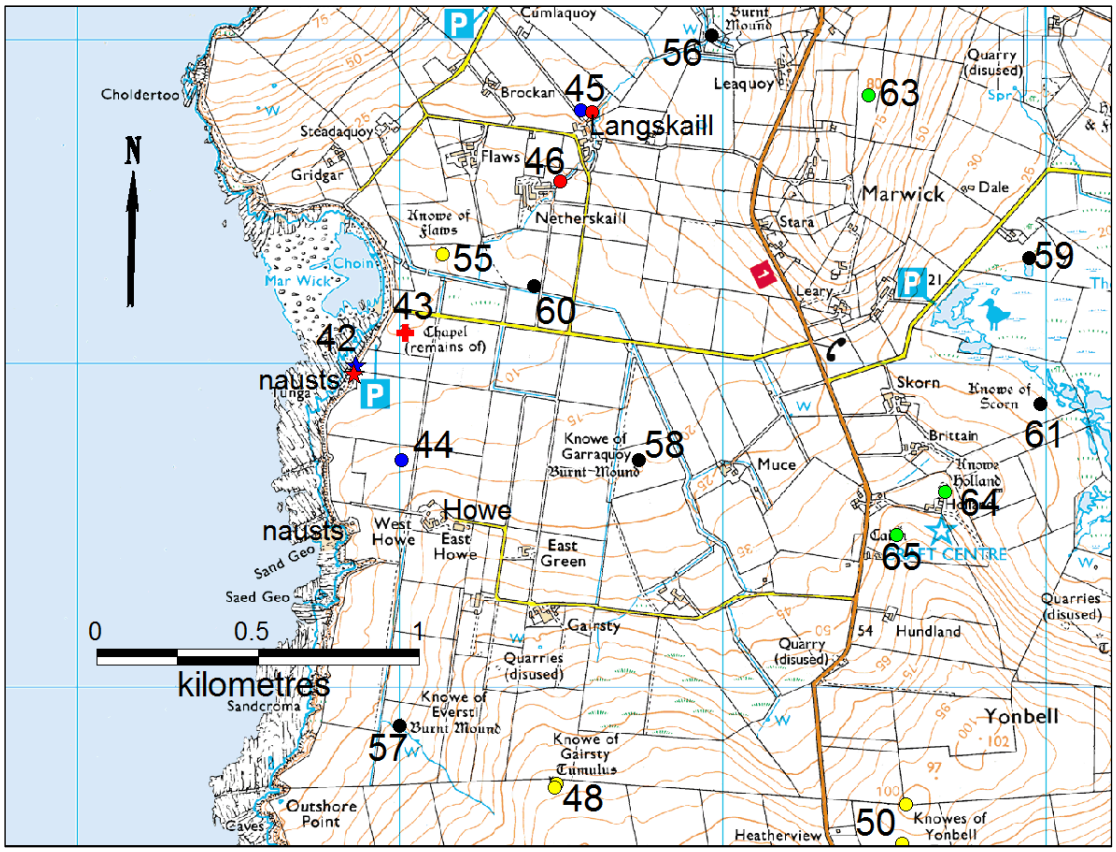


Fig. 4.43: mounds in Marwick Bay, west of the watershed marked more or less by the course of the main north-south modern road.

The remaining mound sites recorded in the bay are no.42 "Viking Houses," a multi-period settlement mound, discussed in detail below, and no.46. The latter site survives as nothing more than an area of disturbed ground by the burn, less than 100m north-east of Netherskaill ON *niðr-skáli* ('below/lower' 'hall'), and was known locally as "The Castle" – an interesting echo of the name applied to a settlement mound in the Bay of Skaill.

[6] Indeed the *Orkney Herald* reported on November 11th 1891 that a double cist with an urn situated on a natural mound had been excavated in July 1890, but no more details have survived (Canmore ID1910).

Fig. 4.44: Marwick Bay looking north-east: the farms of Flaws (left) and Langskaill (right) are in the background with Netherskaill in the right centre.

However, other possible settlement mounds might be proposed. There are four main modern farms in Marwick Bay: Flaws,[7] West and East Howe (treated as one), Netherskaill and Langskaill, all of which sit on substantial mounds. Both in the *Original Name-Book* and on the First Edition Ordnance Survey map Flaws and the two Skaill-sites appear in the same locations, while West and East Howe clearly originated in one large farm, Howe, situated where West Howe is today (Fig.4.43).[8] It has been argued that the two skaill-sites were also once one farmstead focused on Langskaill (Marwick 1931, 37). Certainly Langskaill is more prominently sited (Fig. 4.4). Howe/West Howe crowns a prominent mound at the end of a spur, and is upslope and over one of the deepest recorded anthropogenic deep top-soils (see below). Unfortunately, Howe's soil profiles were not dated. Site no. 44 is not a mound but the area, not much more than 50m north of Howe/West Howe, where recent geophysics revealed two possible Iron Age roundhouses and other less clearly defined structural elements, along with former field boundaries and, as found around the chapel, extensive rig and furrow (Fig. 4.48).[9] These anomalies were also within a zone of "plaggen"/anthropogenic soil. Howe ON *haugr* ('mound') must

[7] Hugh Marwick suggests that Flaws originates from ON *flar*: ('strips of meadow land'), rather than ON *flaga* ('stone flags') as the former he argued was often applied to cultivated land (1931, 37). His interpretation would also fit the accumulation of relict deep infield soils on which the modern farm sits (see below).
[8] *Original Name-Book* list: Orkney Vol. 1 www.scotlandsplaces.gov.uk accessed 13.12.2013
[9] Area centred on HY2313 2366: in June 2011, Orkney College Department of Archaeology and *ORCA* carried out 1.2ha of gradiometer survey, 1ha of resistance survey and 0.08ha of ground penetrating radar GPR survey. The data identified two possible roundhouses, one clearly illustrated in the GPR data (DES 12, 129-30).

be an area of multi-period settlement: probably a major settlement mound. The chapel is just over half a kilometre north-north-west and the coastal settlement mound (no. 42) just under half a kilometre north-west: the latter includes both probable Iron Age and definite Viking-Late Norse layers and the chapel might be early. Thus, there may have been two contemporary settlement areas, one close to coast-edge, the other slightly inland, in both the Iron Age and Viking-Late Norse periods on the southern arm of the bay.

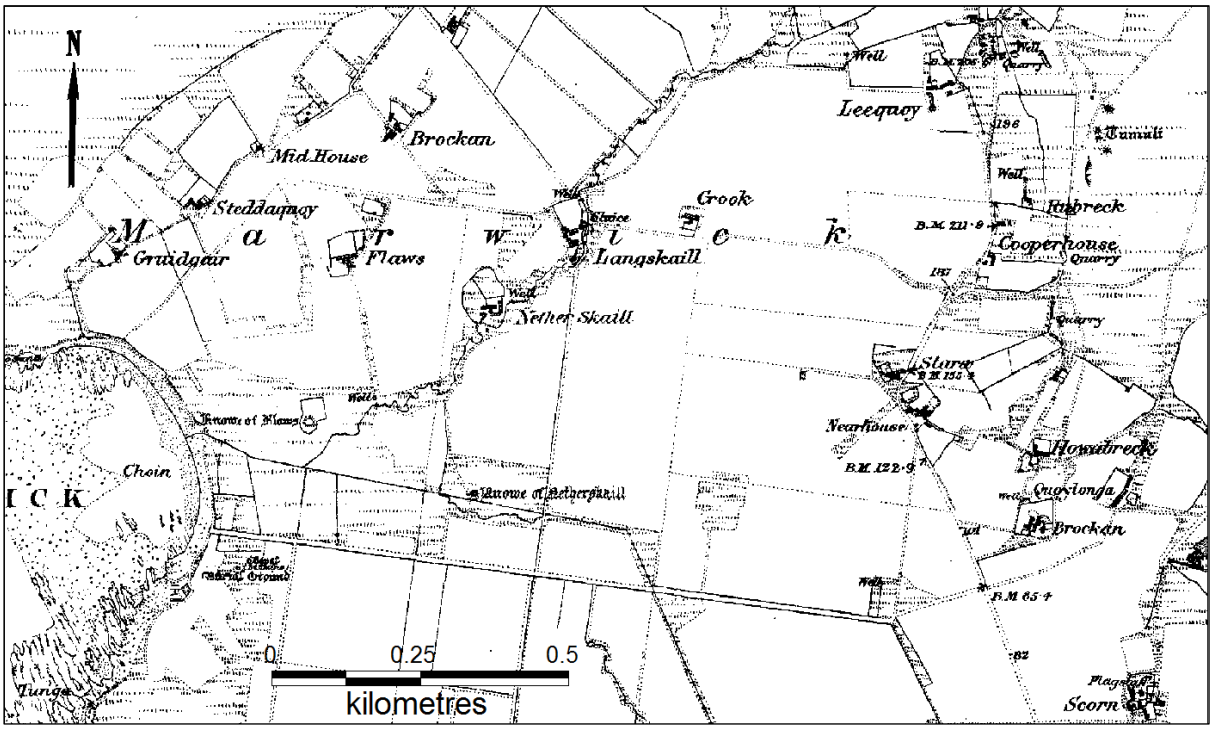


Fig. 4.45: First Edition Ordnance Survey map: showing Langskaill and Netherskaill (centre).

Flaws and Langskaill are also at the centre of a spread of "plaggen" soil accumulated to over 0.6m. One profile taken 100m north-north-east of Netherskaill through the deepest accumulation returned a broadly eleventh-century radiocarbon date from a lower level, consonant with deposition in that part of the mound being Viking-Late Norse period; there no hint of any structural archaeology. The destroyed "Castle" mound (no. 46) cannot be characterised, and the small pipe-trench investigation (no. 45) just north of Langskaill revealed only a possible hearth, interpreted as prehistoric/Viking-Late Norse. Both Flaws and Langskaill are very prominently situated and both may occupy long-lived settlement locations with two settlement mounds surviving beneath the existing farms.

Fig. 4.46: remains of the chapel walls no. 43 looking due south-east towards East (left) and West Howe (right) demonstrating the prominent position of the main farm buildings.

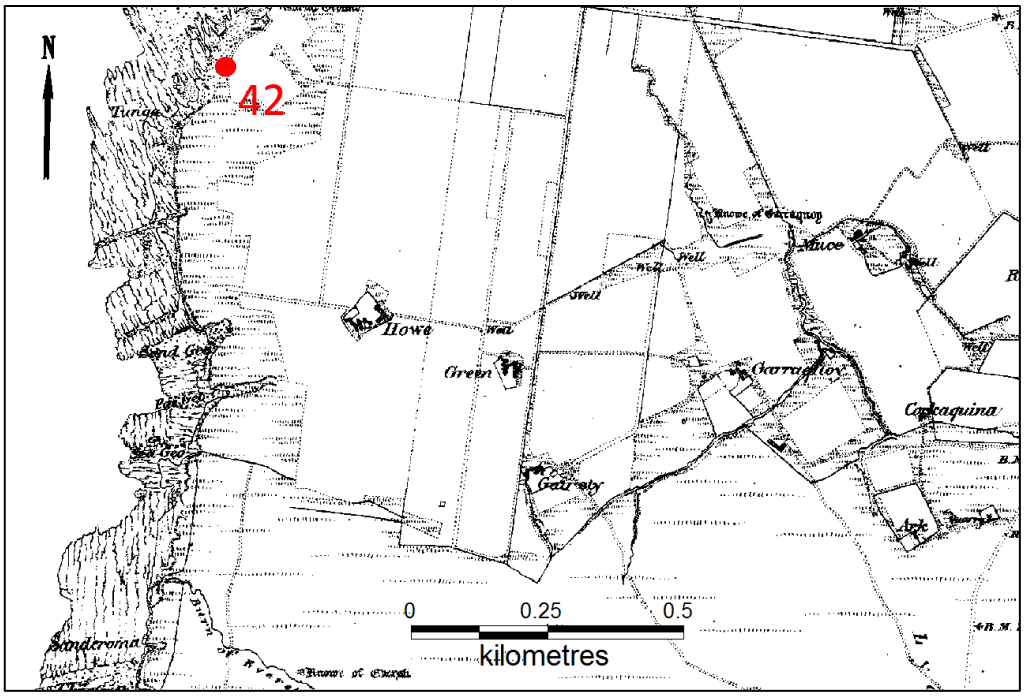


Fig. 4.47: First Edition OS map showing Howe and settlement mound no. 42: "Viking Houses."

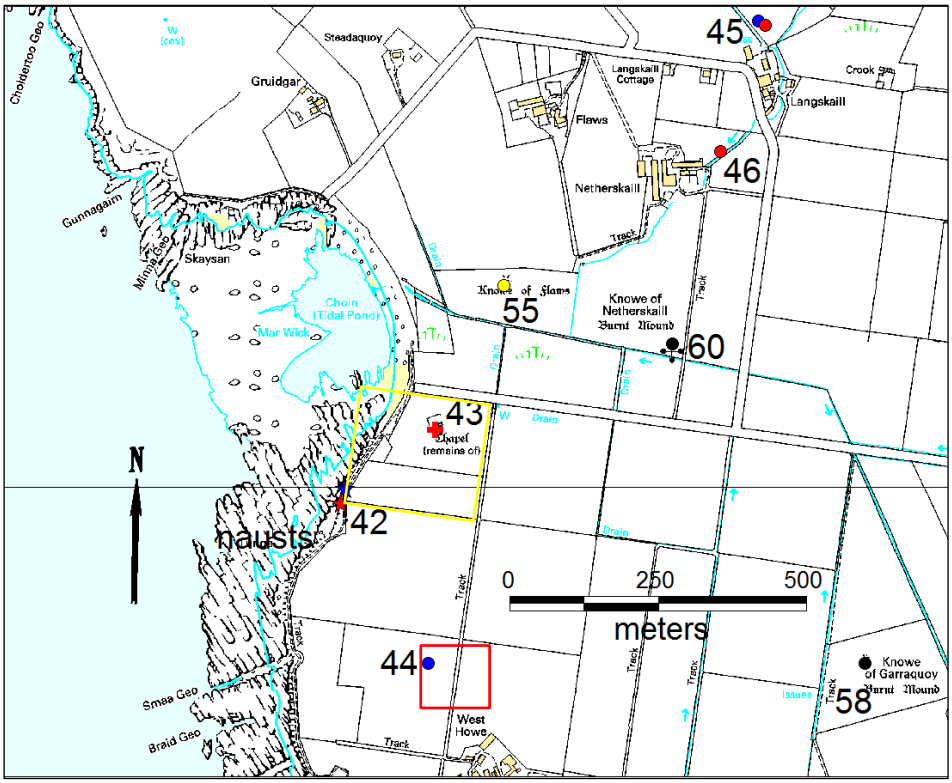


Fig. 4.48: detail of the archaeology of Marwick Bay: nos 42, 46, 55, 58 and 60 are or were mounds. The red box marks the approximate location of recent geophysics (no. 44) which revealed possible Iron Age settlement, the yellow box fields covered by the 2009 geophysics, and no. 45 the Iron Age or Viking-Late Norse hearth.

Geophysics and excavations: Chapel, no. 43, and "Viking Houses", no. 42 (DSR 2009)

Introduction

This section summarises the geophysics and rescue excavation undertaken by BSLAP in 2008-2009 (DSR 2009). The survey revealed that not only above-ground foundations of the chapel survive (Figs 4.46-4.49), but also a less obvious enclosure wall and other small possibly chapel-related features. Geophysics also showed extensive anomalies associated with mound no. 42 stretching up to 50m east and over 80m north-north-east of the exposed section. Vertical excavation of the coastal section revealed a complex sequence of buildings, working surfaces, midden-influenced deposits and periods of change, indicating the settlement was multi-phase as well as covering c. 240m^2. Radiocarbon dates suggested a major change occurred in the investigated part of the mound sometime in the late-eighth to ninth centuries. Structural phases from before and after that change suggest the mound may contain both later Iron Age and earlier Viking-Late Norse phases. This area, encompassing at least one multi-period settlement mound and a chapel within a short distance of each other, and echoing settlement relationships at Tuquoy and Langskaill (Westray), would repay larger-scale investigation.

Fig. 4.49: visible remains of the chapel with another coastal mound in the right background: looking ENE.

The Geophysics

The gradiometry results from inland and up-coast of the excavated section resemble survey data from the mounds at Skaill (Sandwick): difficult to interpret patterns of high anomalies which interfere with each other.[10] These characteristic readings are returned by the deep stratigraphy of occupation, midden and midden-influenced layers within and around the superimposed structures of settlement mounds, and so in this case reflected a continuation of the archaeology seen in the erosion section. The surveyors observed: 'Although it is hard to discern individual features within this area it does seem to have been subject to intense activity'; they also noted that positive anomalies were of different strength and form, suggesting different types/phases of settlement remains (DSR 2009, Appendix C, 2).[11]

[10] Two scheduled monuments were surveyed: the chapel and its surroundings, and the inland sector of mound 42, "Viking Houses". Five hectares of gradiometry were followed by two just under one hectare resistivity surveys over the chapel and a coastal area just north of the excavation (Geophysical Survey Report 09/02 *Marwick, Orkney*: Orkney College Geophysics Unit 2008-9, Appendix C, DSR 2009). The survey in the northern field indicated rig and furrow cultivation and in the north-east elements of a possible enclosure; that gradiometry did not extend into the field just to the north where the Knowe of Flaws is located.

[11] There is also a sub-rectangular anomaly which may represent the walls of a building (the positive response was created by midden wall-infill/midden wall-backing) or, as suggested by the surveyors, a ditched feature 'perhaps a house (Norse/Viking), similar to features at the Brough of Birsay' (ibid. 14).

Various linear anomalies associated with the chapel were discerned as well as several pit-like negative anomalies: the rig and furrow, running predominantly NW-SE, respected the chapel.

Fig. 4.50: left centre: the possible coastal settlement mound recorded in the resistivity survey north of the excavated section, looking north to the Kitchener Memorial.

Fig. 4.51: stonework visible within the coastal mound shown above: looking north-west.

The resistivity survey revealed the chapel outline, its enclosure wall and a possible outer enclosure. Closer to the coast a block of high resistance corresponded to another obvious mound within which stone was visible (Figs 4.50-4.51). Other high resistance readings, although incoherent, probably related to structural elements within the settlement area delineated by the gradiometry.

The excavation

Summary

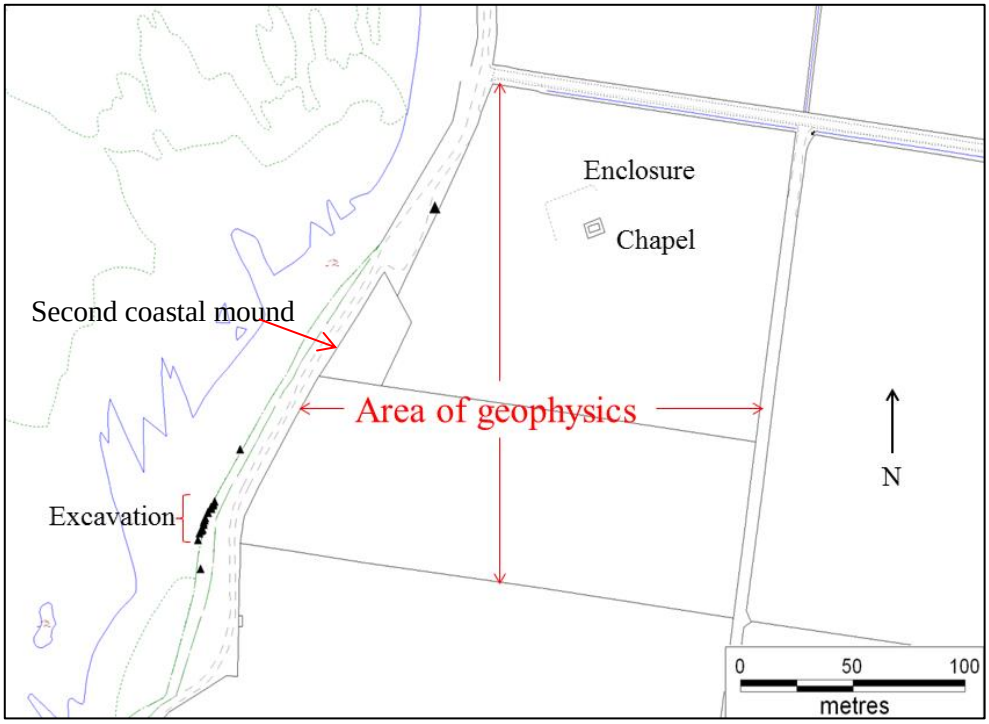


Fig. 4.52: indicating location of 2009 vertical excavation, after DSR 2009.

The 18m-long excavated beach-cliff section ran north of a modern field boundary and west of the coastal track (Fig. 4.52). The eroding section rose up to 2m above a 1m-high slope of natural boulder clay; below this the wave-cut platform dropped down to the sea, at most 50m away. No diagnostic finds were made but building styles were characteristic of both prehistoric and Viking-Late Norse periods.[12] Several structural phases were revealed, together with occupation surfaces and layers indicating levelling and abandonment episodes, demonstrating that the low, eroding mound held a multi-phase settlement of some complexity. There were at least four phases of building or re-building in this small area. The limited nature of the excavation, and the extensive damage caused by erosion

[12] The upper 0.5m of the cliff-section was especially unstable and the high shell content rendered the deposits even more vulnerable to fragmentation if heavily cleaned. Work on these areas was limited to removing recent slippage and careful tidying. Lower layers were first cleaned and then cut back between 0.3-0.5m to create a near-vertical section. Where appropriate the section was stepped out slightly along the bottom of a clear context boundary to reduce the amount of deposit removed. The section was divided into 4 areas from the south to north: any bulk finds made in the initial hard cleaning were grouped by area, unless they could be assigned with confidence to a discrete context. In the second section-straightening exercise bulk finds were associated with contexts as they were excavated. Finally, environmental samples were taken from undisturbed contexts. Area 1 ran from the southern end to north of drain [1006], Area 2 from north of the drain to north of wall [1009], and Area 3 to the northern end of the cleaned section (Fig. 4.54). The areas are of unequal length, chosen to follow archaeological entities (Harrison DSR 2009, *Excavation Report*, 2).

and burrows, inevitably constrained the development of a complete structural sequence for the whole section, but the northern stretch showed a number of superimposed surfaces and walls. The sequence in the south was less complex, but a more complete wall and drain discovered there better demonstrated the nature of construction in that phase (Fig. 4.53). The drain has similarities to Viking-Late Norse constructions on the Brough of Birsay (Hunter 1986). Excavation in undisturbed areas to the east would clarify the function, character and relationships of the phases of settlement.

Fig. 4.53: wall [1009]: facing east.

Dating

Two radiocarbon dates were retrieved from carefully selected samples: one from layer (1019) spread rapidly to create level foundations and one from the clay-based, internal working surface (1018) packed above. (1018) was especially organic and contained metal-working slag. Those two layers marked a structural reorganisation in that part of the mound, sealing a sequence of walls below. The dates were (1019) 860-970 calAD (61.8%) and (1018) 770-970 calAD (95.4%; 800-900 at 55.6%), suggesting the floor was created sometime just before or during the ninth to earlier-tenth centuries.[13]

[13] (1018) SUERC-33695; and (1019) SUERC-33698 (DSR 2010): the dating of (1019) is more questionable than that of (1018) as the former was a levelling layer and the latter a contained, internal surface.

<u>The structural sequence and mound-related building techniques</u>: (Table 4.04)

Many relationships were rendered uncertain due to slippage and burrows.[14] But the earliest visible structural sequence in the south was dominated by substantial wall [1009] (Fig. 4.54), which re-used the large sea-cobble foundations of an earlier structure. After being partially dismantled this wall was sealed by deposits which suggested the centre of settlement activity moved elsewhere before levelling layer (1019) heralded the next major phase in this area.

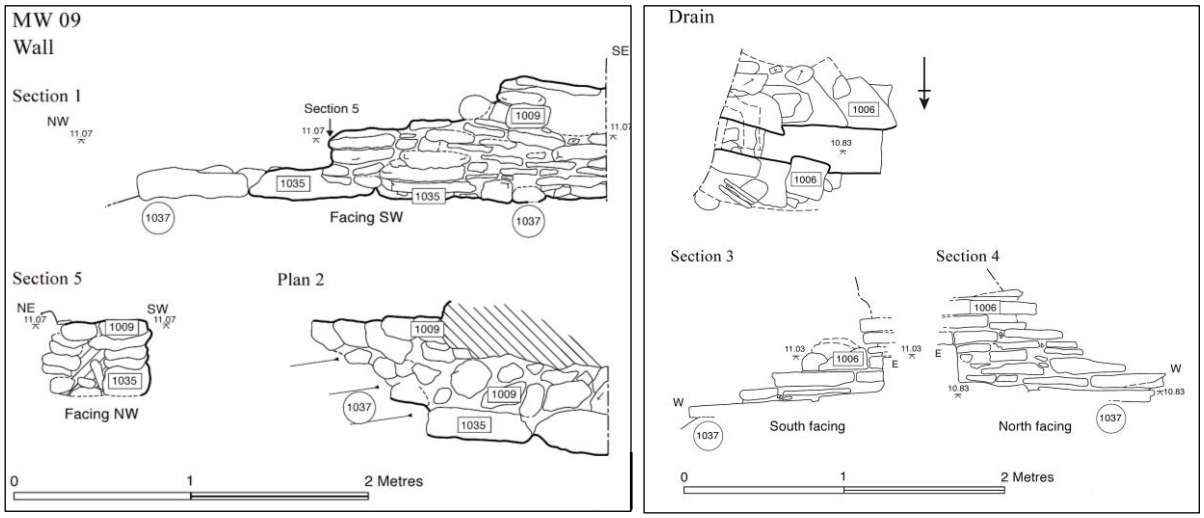


Fig. 4.54: Marwick 2009, wall [1009] left, and drain [1006] right, author drawings © BSLAP DSR 2009.

The beautifully constructed stone drain [1006] in the south was probably built at a similar time to that reorganisation (Fig 4.54). Over three metres of its length could be probed as the drain rose at an angle eastwards. It was probably related to the structural remains detected to the east by geophysics. The section in the southern area was completed with a final sequence of shell-dominated layers (e.g. 1014) which suggested that some unknown length of time after the tenth century this reverted to a peripheral activity zone.

In the north of the section the earliest layers were associated with a damaged structural feature [1028], infilled with a highly organic midden-rich spread. Subsequently, after the earlier structure was partially dismantled, a slab surface [1027] was laid, associated with a remodelled wall [1022] and a clay-rich

[14] One concentration of burrows in the centre of the section had been hugely enlarged by the repeated digging of children and dogs creating one large hole (see Fig. 4.52).

occupation surface (Fig. 4.55). Wall [1022] may have been part of the same structure as wall [1009], creating a corner just in front of the section, but that relationship was irretrievably lost to the sea.[15] Another structural remodelling followed, with another surface of large slabs set over partially dismantled structure [1022]. It is at this point that the northern and southern sections could be correlated as levelling layer (1019) spread across both. That layer was preparatory to the establishment of another clay-rich floor (1018) associated with stone wall [1016]. Finally this area, as in the south, reverted to a more peripheral zone.

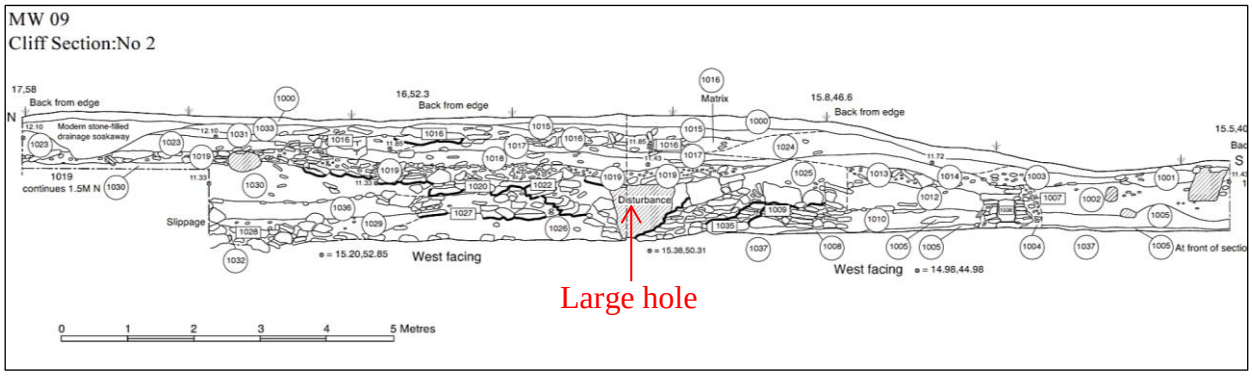


Fig. 4.55: the cliff-section with the drain in the south, wall [1009] in the centre and the less clear structural sequence in the north, author drawing © BSLAP DSR 2009.

In this mound Viking-Late Norse structures were probably built over Late Iron Age settlement, with structural change incorporating earlier buildings; "Viking Houses" was also very near probable Iron Age settlement in area 44. Midden-type material was used on floors, along with rough paving, and as infill; walls were partially demolished and the remnants incorporated into new walls. The full list of mound-related building techniques used at "Viking Houses" is given in Table 4.04.

Conclusion

The excavation revealed the potential of this complex, large and probably multi-period settlement mound. Although not on windblown sand this coastal-site was probably deserted before the medieval period in the settlement shift away from the coast-edge. It is difficult to be certain close to the coastal

[15] Stratigraphical and structural relationships are extremely difficult to untangle in sections created by erosion rather than selected for archaeological reasons.

track, but the ridge and furrow seems to impinge on the settlement behind the eroding section and the radiocarbon dates and building-styles suggest a pre-medieval final settlement phase.

Langskaill, Netherskaill and Howe: The investigation of relict deep top-soils (Simpson 1985, 1993, 1994, 1995 and 1997; Simpson et al. 2005)

The 1981 *Soil Survey for Scotland* plotted deep anthropogenic "plaggen" soils: soils fertilised and amended with mixtures of manure, turf, midden, seaweed, ash and sand (first described in Germany and Netherlands e.g. Pape 1970). This addition of material to the land, often over centuries, built more fertile and robust soils up to a metre deep. Some are very old indeed: prehistoric anthropogenic top-soils were identified at Toft's Ness (Sanday) (see pp. 295-8). These soils were part of intensive infield land management, moving beyond fertilising to the creation of new top-soils: generating arable areas in less promising land and maintaining others over long periods. Dating the initiation of this activity has proved challenging, and they were indubitably nurtured for different reasons over different time periods, but equally certainly they are indicators of long-term investment in land and long-lasting farming settlement.

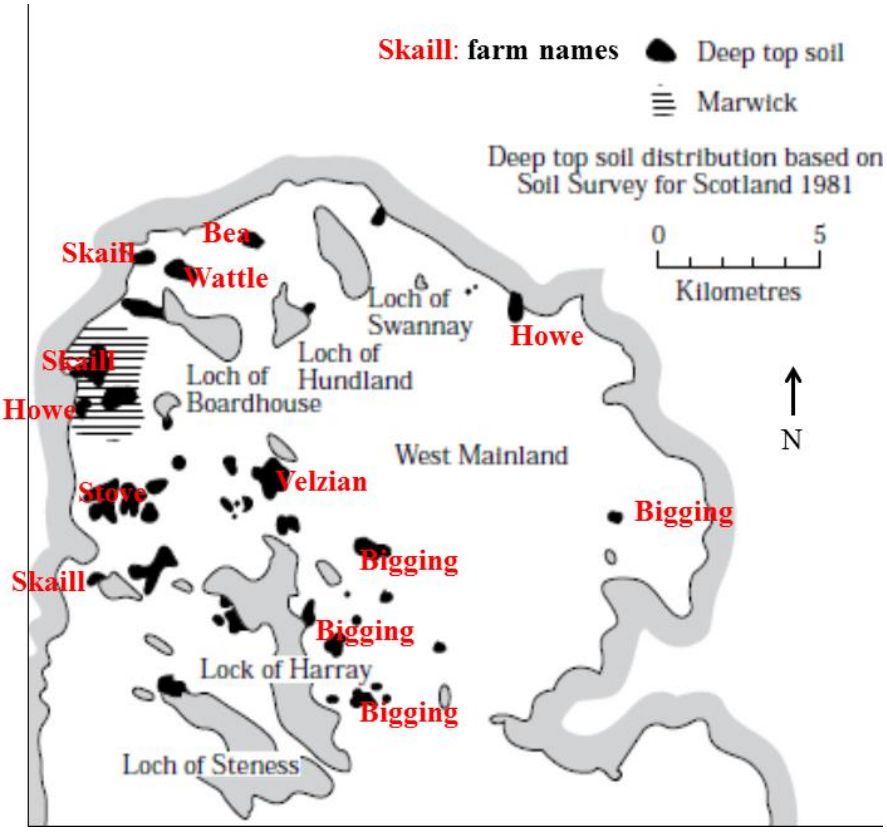


Fig. 4.56: deep top-soils in Orkney, after Simpson 1997, 366 with farm-names added.

The 1981 Survey mapped 45 areas of deep top-soils in Orkney, the largest not much more than 1km^2 (Fig. 4.56). Apart from two small areas on Stronsay the recorded soils were in discrete patches in West and North Mainland and, discovered more recently, at Quoygrew on Westray (Simpson 1985; Simpson et al. 2005).[16] The two settlement mounds at Quoygrew and their immediately surrounding land were investigated with auger transects and test pits (Barrett 2012, 33-39). The depth and characteristics of the 'deep anthropogenic sediments' were modelled (ibid. 33). Quoygrew excavators' definition of those sediments incorporated both "midden" (with animal bone, ash and shell) and "thickened anthrosols" (with peat-flecking but few midden-type inclusions): a model that moved seamlessly from settlement mound midden-type material to deep top-soils. The deepest area of anthrosols at Quoygrew was interpreted as the medieval infield (ibid. 39), but no radiocarbon dating was attempted. The important discovery for the current discussion was the demonstration of an unbroken spatial relationship between midden-rich settlement mounds and surrounding plaggen soils.

[16] There are undoubtedly other areas of "plaggen-type" deep anthropogenic soils still to be located in Orkney.

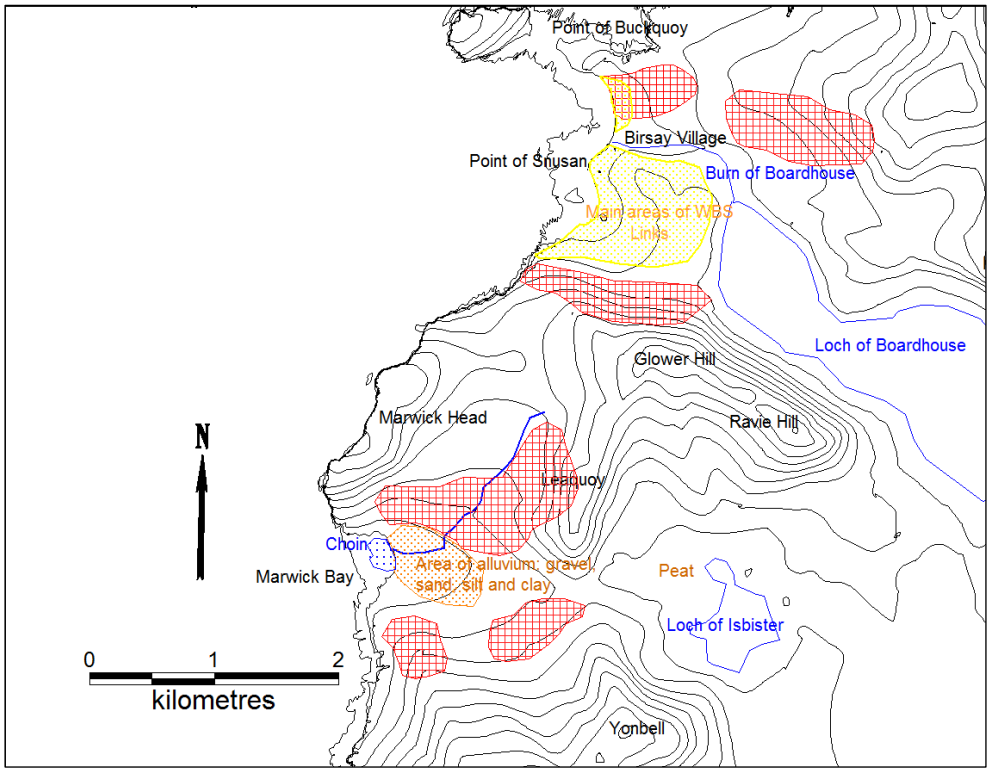


Fig. 4.57: red hatching indicates areas of deep relict top-soils in Marwick and Birsay.

Ian Simpson, early in his research on Orkney claimed that the 'Norse settlement pattern is strongly related to the location of deep top-soils' (1985, 169). Thirty years later the correlation, discussed further below, seems less straightforward. It is hardly surprising in Orkney that 41 of the deep top-soil areas are linked with Norse farm-names. However, none of the patches so far investigated are co-located with known Viking-Late Norse settlement; the overwhelming majority are not near-coast, or associated with settlement mounds or windblown sand.[17] Indeed the vast majority are in higher/hillside or inland locations, for example around the Lochs of Harray and Stenness, and on the higher ground north and south-east of the Bay of Skaill (Fig. 4.56).[18] The wide range of locations alone suggests that these "plaggen soils" formed for different reasons over different time periods. Deep soils thus present a generally contrasting pattern to settlement mounds and known coastal Viking-Late Norse settlement,

[17] Almost without exception, the deep top-soils are formed on glacial till drift geology (see *BGS Orkney Islands Solid and Drift Geology*).

[18] There are however some interesting place-name associations between farms and these soils not discussed by Simpson. He relies on Hugh Marwick's "chronology" of Norse farm-names to assay dating the deep top-soils. Without relying on that now much-challenged chronological approach to farm-names, there remain some tantalising correlations. Of the biggest inland areas those north of the Bay of Skaill co-locate with Stove farm-names, those north of the Loch of Harray with Velzian possibly *ON veizla*-names, and the soils east of the Loch of Harray and north of the Bay of Isbister with Bigging-names. Investigating the onomastic history and archaeology of plaggen soil areas is a research project in its own right.

and it might be suggested most began forming later than the period under consideration, perhaps in the thirteenth-fourteenth centuries at the earliest, with a few exceptions.

Some relict plaggen soils mapped *are* in coastal locations; but only those in Marwick and Birsay Bay are in supposed prime Viking-late Norse settlement locations. By contrast the two coastal distributions in north-*east* Mainland are on slopes down to rocky shores overlooking the perilous Eynhallow Sound, not located near any known Viking-Late Norse settlement (Fig. 4.56). However, the southern of those spreads downslope from the farm of Howe ON *haugr* ('mound') next to which a (small) mound has recently been recorded (Canmore ID334030), and which overlooks two brochs. The Viking-Late Norse site of Westness/Skaill faces the area across the Sound. This Mainland Howe site would bear further investigation.

The remaining coastal deep top-soil patches are clustered in Birsay and Marwick Bays. In Birsay Bay the area south of the Point of Buckquoy lies interestingly between the Viking-Late Norse sites on the Brough Road, the proposed site at the east end of the Point (no. 10) and the village of Birsay with its vanished *Langskaill* just to the south: but unfortunately those soils have not been dated (Simpson 1985, 1997). Another spread to the south of Birsay Bay runs west-east along the higher escarpment closing off the bay. Both areas are next to but *not* co-located with the main links in the centre of Birsay Bay. In Marwick Bay the three plotted spreads are also not on sand (Fig. 4.57). These are the soils on which Ian Simpson concentrated his investigation. Across Orkney different histories might be proposed for the relict deep top-soils, and there is no rigorous overall association with skaill place-names or known Viking-Late Norse settlement that adds to this study. However, the plaggen soils in Marwick Bay, which are more closely related to the known/possible Viking-Late Norse settlement mounds and skaill-names there, do add to understanding of that particular settlement landscape.

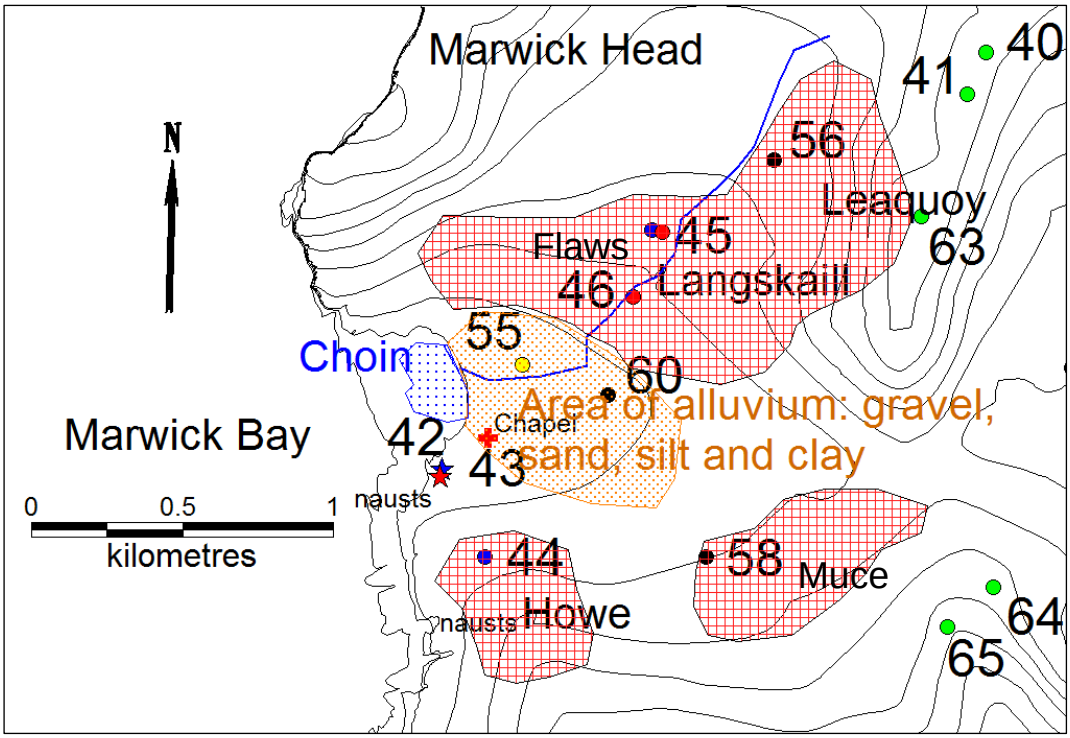


Fig. 4.58: Marwick Bay detail: the red hatching indicates areas of deep relict top-soils

Simpson's work within the Marwick basin began with detailed mapping of the soils and their depth using auger surveys (Simpson 1997; Fig 4.59). In three main areas soils reached over 0.6m deep: the largest taking in the farms of Langskaill (in particular), Netherskaill and also Flaws above the central meadow land, and stretching up the steeper eastern slopes to Leaquoy. On the gentle southern slopes two units were centred on Howe in the west and Muce in the east. The soils were therefore created on better-drained land suited to arable cultivation above 10m and below c. 30m. The association with the main, older farms is indisputable here: Langskaill and Netherskaill, with hints of Viking-Late Norse archaeology (nos 45 and 46), and Howe where geophysics identified possible roundhouses (no.44). However, the deep top-soils focused on Howe do not spread as far as the (at least) Iron Age to Viking-Late Norse settlement identified in the coastal mound at no. 42. This suggests that those settlements may have been abandoned before the generation of deep top-soils began in earnest in this bay.

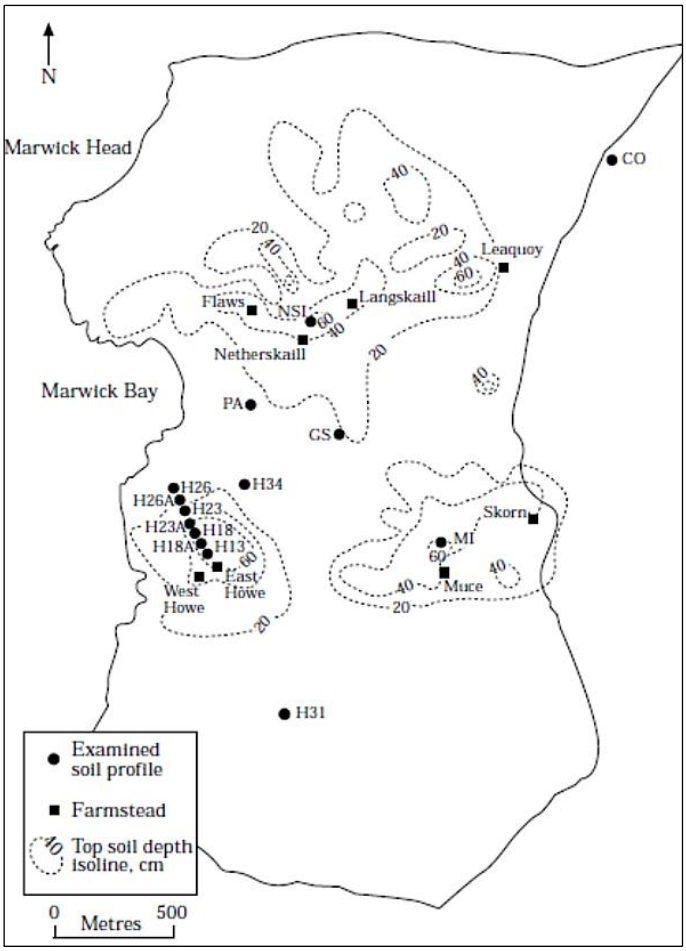


Fig. 4.59: deep top-soil distribution and depth in Marwick Bay after Simpson 1997, 367.

The soil properties of single soil profiles only were examined at Langskaill and Muce, but a sequence of seven profiles, running downslope from East Howe, was tested for particle-size distribution, phosphate and stable carbon isotope (δ^{13}) content (Simpson 1985; Simpson 1997, 367-374).[19] Top-soil thickness declined away from the farmstead but phosphate analysis also demonstrated 'marked spatial distinctions', reflecting differences in 'the depositional pattern of organic material' (1997, 370). The particle-size distribution also suggested variation in deposition. Simpson argued this patterning was due to post-depositional movement of material. However, it might also be that, as at Quoygrew (Barrett 2012, 33-39), *older* settlement mound-related deposits from Howe were merging with mainly medieval and later, amended infield soils. The composition of the soils was dominated by hill-turf, animal manure/byre waste, peat-ash and some seaweed. Simpson summed up the results as suggesting a

[19] Particle-size distribution reveals the relative sand, silt and clay content, and any spatial variation in proportions helps to illuminate, by comparison to *un*-amended soils, the added components; raised phosphate content indicates the presence (through stabling, penning or addition of used byre bedding) of ruminants and pigs; and stable carbon isotopes indicate the origin of the main organic materials such as turf, manure and seaweed.

‘simple system of organic material application comprising largely of varying proportions of turf and animal manures’, to which a little seaweed had been added (1997, 373). It is notable that the process was continuous, implying the farm remained in essentially the same location.

It is unfortunate that soil profiles from Howe were not dated; the only two dates come from the Netherskaill mound. The earliest date was from 65-75cm down which gave a calibrated date (expressed as a dendrochronological timespan) of AD1022-1187; the later span at 25-30cm depth was AD1425-1475.[20] Simpson stressed the use of radiocarbon dates from profiles was ‘seriously problematic’ due to bioturbation and uncertainty about the origin and age of redeposited organic material (1995, 185). By analogy with his earlier work on Sanday mound-samples Simpson argued the dates were likely too old by 220 years, so the creation of the top-soils in that part of the Netherskaill mound began not much before the early-thirteenth century (Simpson 1993, 6). Relying on Hugh Marwick’s farm-name chronology Simpson suggested top-soils generally were associated predominantly with “Norse period” settlements (defined as AD800-1468).[21] Dating deep top-soils across Orkney remains a project to be tackled.

But what first prompted the creation of these soils? Simpson’s suggested trigger was population growth in the late-Norse period (thirteenth-fifteenth centuries in his time-frame), which demanded expansion in arable production and the intake of less-productive land. Furthermore the nature of soil amendment measures taken on Mainland, was Simpson argued, dictated by lack of seaweed (otherwise the fertiliser of choice), and influenced by the knowledge of monastic communities – in particular he suggested those established in Birsay Bay – with links to areas of northern continental Europe already applying the plaggen system (Simpson 1985, 178-79). The broad conclusion that anthropogenic deep top-soils were ‘relict features of infield management between the late-Norse period and the agricultural

[20] At 65-75cm (Lab code SRR4115) the RC14 BP to 1σ was 930±55 and at 25-30cm (Lab code SRR 4114) 440±55 (Simpson 1997, 368).
[21] Marwick’s schema was described as using the following names from supposed oldest to youngest: 1 geographical names (including *haugr* and *brekka*); 2 *bær*; 3 *skáli*; 4 *staðir*; 5 *land* and *garðir*; 6 *setr*; and 7 *kví* (Marwick 1952; Simpson 1993, 6).

improvements of the late-nineteenth century' stands (Simpson 1997, 375), with the proviso that there were probably a range of "start dates" with most originating after the settlement mound era.

Concentrating on settlement mounds, however, a different hypothesis might be offered. Marwick Bay, while attractive to Viking-Late Norse farmers in many respects, was relatively lacking in sand. Turf/ turf-based byre waste would therefore have been more widely utilised for improving infield land in an earlier period, to compensate for that lack. Simpson asserted West Mainland was deficient in seaweed, but this is highly unlikely: Viking-Late Norse layers at Skaill (Sandwick) revealed extensive use of seaweed. And the *NSA* recorded that in the parish of Birsay and Harray, including Marwick, there was a '…great abundance of sea-weed at command for manure' (152).[22] Seaweed was, therefore, also available as a fertiliser. Rather, the co-location of deep top-soils and Viking-Late Norse settlement, and the subsequent onset of vigorous top-soil creation, is explained by Marwick's small size. The coast-edge site most securely linked to an older settlement pattern – "Viking Houses" – did come to an end before the creation of deep top-soils was really underway.[23] However, slightly inland settlements – for example Howe and Langskaill – did not shift in the twelfth century simply because there was nowhere else to go, and already-worked soils therefore needed aggressive amendment to maintain fertility. The earlier settlement mounds probably survive, blanketed within those deep top-soils at Howe and Langskaill/ Netherskaill.

The relict plaggen soils in Marwick testify that this was for centuries an area considered worth investing agricultural effort in; whether solely for the returns or for other more broadly cultural reasons is difficult to determine. The skaill-names, the presence of a probably early chapel and the possibly linked coastal-inland Viking-Late Norse settlements suggest the small size of this bay belies its significance. It is certainly different in its lack of sand drift geology, which may have predisposed the communities there to adopt slightly different agricultural strategies: methods similar to those used

[22] The *OSA* of 1795 also observes that seaweed was much used as a fertiliser in Sandwick, Bay of Skaill (420), thus indicating for an area with even more deep top-soils that lack of seaweed was not necessarily a driving force for their creation.
[23] It is also important to note this settlement came to an end despite there being no inundating sand on site.

intensively in later centuries may have begun earlier in Marwick.[24] The development of plaggen soils certainly attests to stability of location and in Marwick multi-period settlement mounds and deep top-soils are more closely related – the latter as a *development* of the first rather than as simultaneous flourishing. Deep top-soils within bays may have different implications in helping understand the Viking-Late Norse to medieval cultural landscape than those inland.

Summary: the Marwick Bay settlement pattern

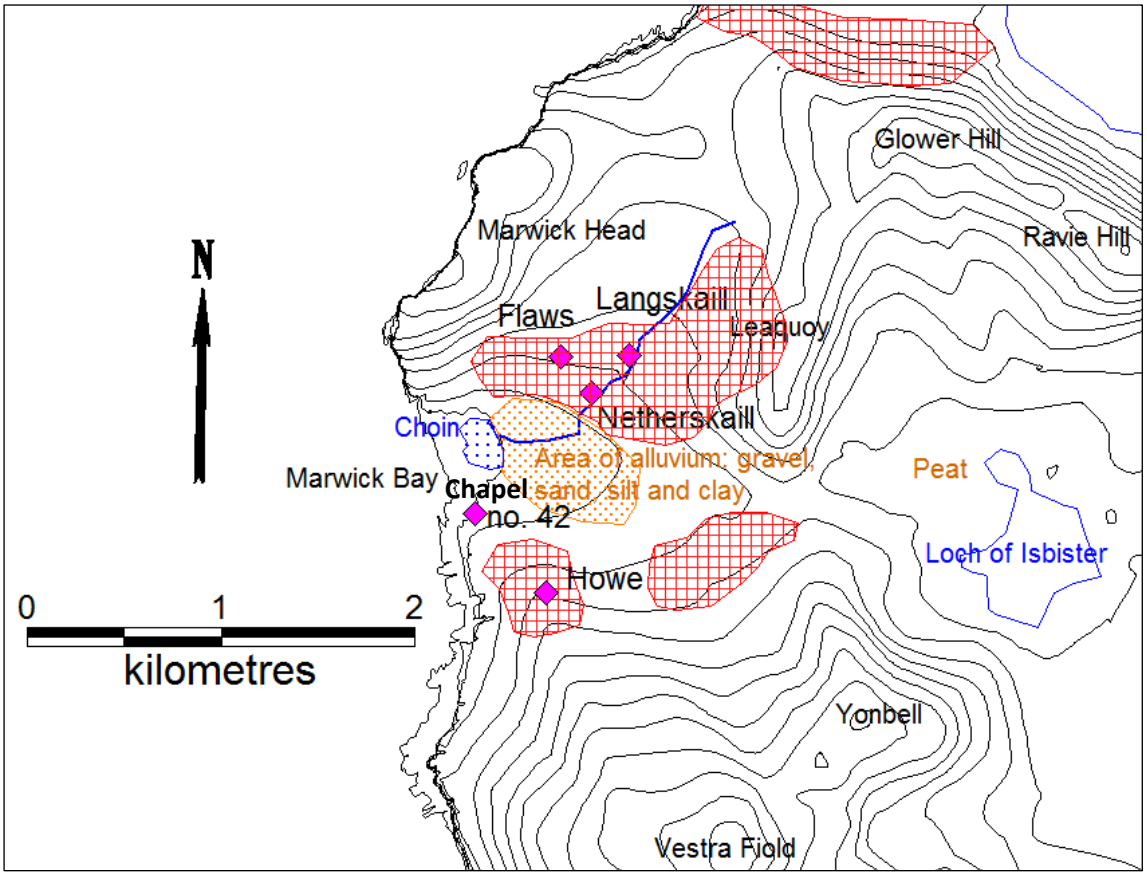


Fig. 4.60: settlement mounds on Marwick Bay shown with pink diamonds, deep top-soils with red hatching.

Marwick Bay is different to the Bay of Skaill and indeed Birsay Bay to the north. The bay's size and damp centre may have constrained the settlement shift that occurred around the end of the twelfth century, a shift further restricted by the early development of more intensively fertilised areas due to

[24] Perhaps especially if one considers Simpson's two-century correction on the radiocarbon dates over-compensation taking the oldest layer in that part of the Netherskaill mound back to possibly pre-twelfth century.

the lack of sand. The slightly inland Viking-Late Norse and later settlement, centred on Langskaill and Howe, therefore underlies the modern farms. Also, Marwick does not have a broch or any discovered burials. However, like the other two bays, Marwick exhibited a “dispersed village” arrangement of potentially linked, inter-visible coastal and slightly inland Viking-Late Norse settlement mounds (Fig. 4.60). The bay’s proximity to the north-south sea-route, good fishing and the power-centre at Birsay may, despite its small size, have appealed to a Viking-Late Norse group who could easily dominate the area to maintain a well-provided independence near to, but not part of, an important political centre.

Chapter Four (3): archaeological mounds around Birsay Bay, West Mainland

Introduction

This section looks at the distribution of archaeological and Viking-Late Norse settlement mounds in Birsay Bay in their landscape context, using the same criteria as for Marwick Bay and the Bay of Skaill. The following areas are covered: the two bays at Birsay and their sand links; the Point of Buckquoy; the dramatically canted, spray-driven tidal Brough; and the fertile low-lying bowl of land enclosed by high ground in the south and hills and the Loch of Boardhouse in the east (Fig. 4.63).

Fig. 4.61: Birsay Bay looking south © BSLAP.

Birsay was undoubtedly a major centre of earldom and ecclesiastical power for at least eighty years from the mid-eleventh century, and may have been an important, perhaps monastic, site in the Pictish period (e.g. Lamb 1974; Morris 1996; Thomson 2008a).[1]

[1] Anne Brundle – focusing on the artefactual evidence – argued that although the Brough was a centre for metal-working in the Pictish period: neither this nor the artefacts are conclusive evidence that the Brough was either ecclesiastical or a power centre (Owen 2003).

References to Birsay (*Byrgisherað*) in *Orkneyinga saga* and the striking archaeological remains on the tidal Brough have attracted successive archaeological investigations since the 1880s. But the impact of those investigations has been variable: dogged by slow or partial publication, and with great uncertainty about the dating of and relationship between proposed phases of Viking-Late Norse and Pictish settlement. The focus on the coastal area has also had the almost inevitable effect of deflecting interest from the immediately surrounding environs and this may be partly why relatively few mound-sites have been discovered away from the coast-edge.

There is much debate about whether the earls' and bishops' residences and Earl Thorfinn's cathedral were located on the Brough or on the adjoining mainland. Yet even as that discussion continues, the density of Viking-Late Norse archaeology (apparently dating from the time of earliest settlement) up to at least the twelfth century, when the locus of power moved to Kirkwall, suggests that Birsay was an important focus of settlement throughout the period. None of the elements of settlement are unique – apart from the "rooms" east of the Brough church – but their quantity, combination and the linked burial evidence indicate this was an atypical area. It is a place about which a great deal has been written, but the mound archaeology in particular needs new consideration in the light of more recent investigations, and without striving too hard to align evidence with the narrative of *Orkneyinga saga*.

Birsay in *Orkneyinga saga*: an earldom centre

By around AD1046 Earl Thorfinn (ruled AD1014-1065), according to the saga, had quelled internal dissent and firmly established himself as sole ruler of the earldom (Pálsson and Edwards ch. 31). He marked this achievement by undertaking a great pilgrimage to Scandinavia and Germany, negotiating with kings and Emperor, and ending in Rome to ask the Pope for a new bishop for Orkney. On his return Thorfinn repudiated a life of 'piracy' and made his 'permanent residence' at Birsay, establishing there by AD1060 the first episcopal seat and cathedral of Christchurch for Bishop Thorolf (ibid. ch. 31). While this narrative may be something of a neat rationalisation – a foundation story for the

Christian earldom – it sets up an unavoidable, although not necessarily defining, context for the examination of the landscape. Its implications for settlement need to be unpicked.

Fig. 4.62: looking east across the Brough site to the Point of Buckquoy.

Even if Birsay was not a major power centre in the Pictish period it was certainly well-settled, and as such a plausible target for incoming Scandinavians. Birsay was an inviting area: not only were soils among the most productive in Orkney, but also the Brough was an impressive location for siting demonstratively high-status settlement. The north-west point of Mainland was also a strategic location from which to oversee sea-roads to north-west Scotland, the Western Isles and the North Sea. The weight of archaeological evidence – a range of Viking-Late Norse sites – also supports Barbara Crawford's contention that Birsay was an established political centre *before* Earl Thorfinn declared it his "permanent" base (Crawford 1995b, 93).[2] The earl's and bishop's residences and the cathedral may have been on the Brough but it is possible that one or the other, or both, were on the mainland opposite. Perhaps the cathedral was on the Brough and the bishop and earl visited from their main residences in the vicinity of Birsay Village. Wherever they were, the establishment of a bishop's seat and a more "permanent" earl's residence was likely to have had a wider impact. Although it is unlikely that Earl Thorfinn lived there continuously – rulers remained fundamentally peripatetic in their exercise of authority – Birsay was perhaps singled out as a showcase headquarters with earls spending

[2] This evidence includes: earlier chapels preceding both Birsay church and the Brough chapel; and earlier than eleventh-century settlement at the Brough, at Buckquoy, Saevar Howe and South of Red Craig (see below).

more time there after the mid-eleventh century. The cathedral would also have attracted visitors. Any earl, or bishop, when in residence would have made considerable demands on the surrounding area – for food and housing for people and animals – and whoever lived on the Brough also would have depended to an extent on provisions brought onto the island. Farms on the mainland would have supported them, and the population living around them.[3] Housing would have been required for a combination of retinues, servants, workers and guests.

Overall, then, Birsay was a place to which people came and where a relatively large and fluctuating number of people were based. That is until c. AD1137 when according to *Orkneyinga saga* Bishop William – persuaded by a miracle – finally allowed the translation of St Magnus' relics to Kirkwall, where a cathedral was being built (Pálsson and Edwards ch. 57). From the mid-twelfth century Birsay was eclipsed as a centre of power by the developing city of Kirkwall and the archaeology seems to confirm this as a time of considerable change in the area. But the settlement history of Birsay cannot be restricted to one century from the mid-1000s and also needs to be explored, if at all possible, as an interaction between sites on the mainland, and between them and settlement on the Brough.

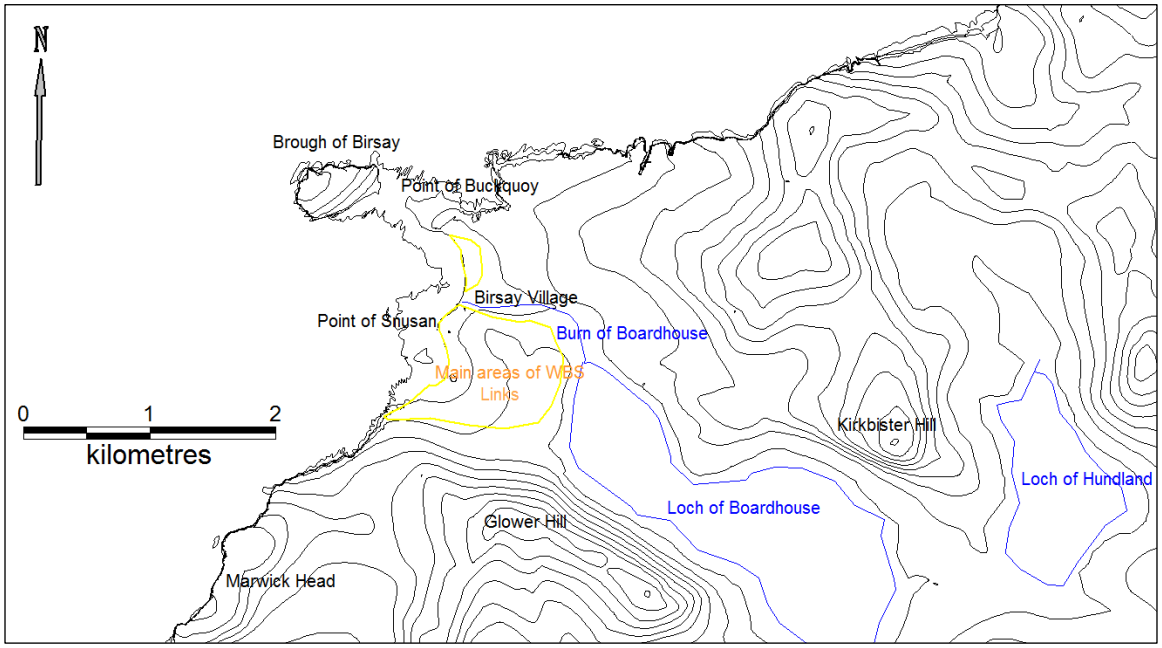


Fig. 4.63: topography and windblown sand links.

[3] It is possible that this pressure resulted in earlier specialisation in the Birsay farms. For twenty years or so Earl Magnus was apparently buried at Christchurch. *Orkneyinga saga* reports that between c. AD1117-1137 pilgrims came from Orkney and Shetland to hold vigils at his grave and seek healing; again suggesting that Birsay was a magnet for people (ch. 52, 96-7).

Geology and Topography

The Brough of Birsay is a small tidal island, c. 650m max W-E and c. 500m max N-S, and access is by a modern concrete causeway at low tide from the Point of Buckquoy c. 250m southeast of the Brough. Without that causeway the crossing may have been difficult: there is no evidence that the Brough was attached to the Point in the Viking-Late Norse period (Fig. 4.64). The Brough's underlying geology, like the mainland is Upper Stromness Flagstone, with superficial deposits of glacial till; the island slopes upwards to the west from c. 6mOD to over 40mOD over the sheer cliffs below the lighthouse. The land is poorly drained and the clay soils support rough pasture and heather. The known archaeology is concentrated on the eastern side of the island.

Fig. 4.64: struggling with the crossing to the Brough despite the modern causeway.

The Bay of Birsay by contrast is blanketed with windblown sand and the fertile, light, free-draining soils were commended in the *NSA* as excellent for growing bere barley and oats: they were 'considered by far the richest and most fertile… perhaps in Orkney' (*NSA* 150; Hunter 1986 15-16). (The Point of Buckquoy however is less sandy: Fig. 4.63.) The beaches are also notable for their rich kelp harvest and popular with seals. Geos on the Point of Buckquoy, such as Castra Geo, as well as the two beaches, would have provided landing places. A good range of resources was available on mainland Birsay: the lower-lying, relatively sheltered area around the Bay slopes up to the rough pasture and peat of the hills to the west and south. The land to the south rises to Glower Hill at 100mOD and the dramatic if slightly lower cliffs of Marwick Head, with excellent opportunities for harvesting eggs and trapping birds. To the north-east the hills reach just over 100mOD (Kirbister Hill

and the summit to its north-west).The Burn and Loch of Boardhouse were sources of fresh water and fish, while tidal-pools in the rocky foreshore were also good hunting grounds.

Skaill and other place-names

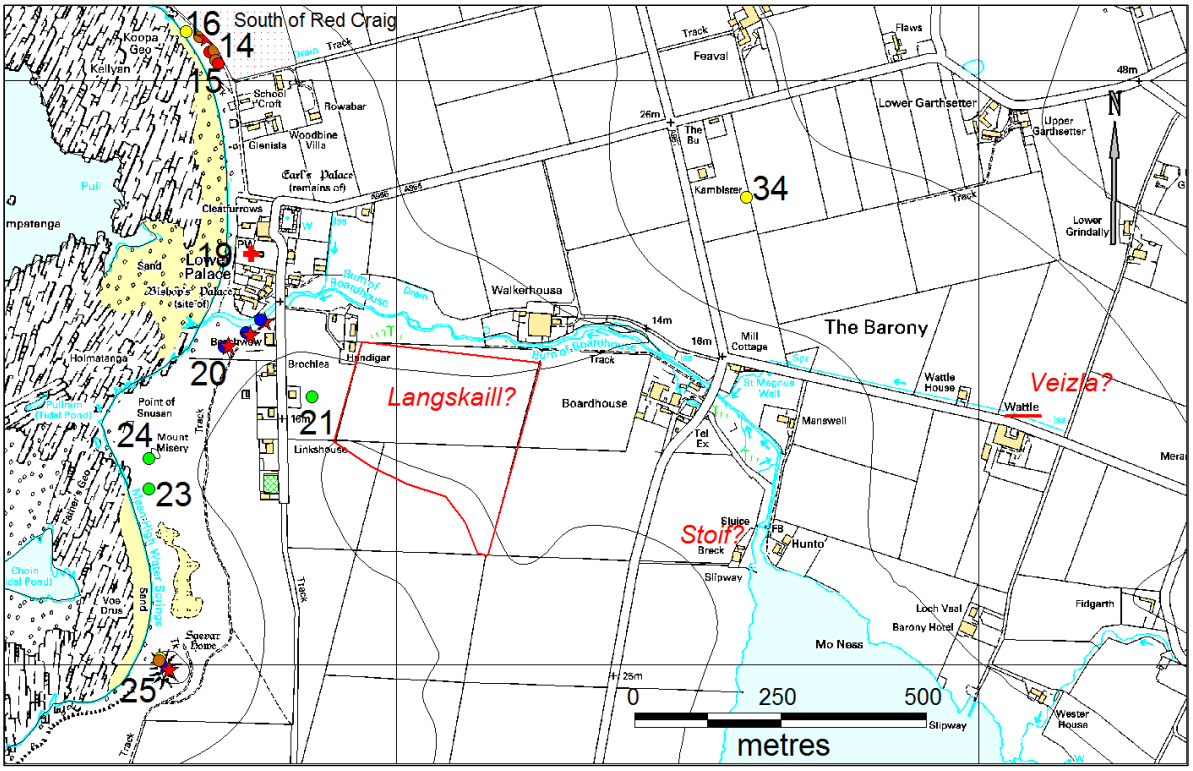


Fig. 4.65: place-names in central Birsay.

Perhaps surprisingly, no skaill-names survive in Birsay. The area under close investigation in this section – comprising the Point and land below c. 50mOD in the hinterland of the bay – corresponds to area called the Barony,[4] split at some point into two townships Birsay Be-north and Birsay Be-south. The whole of the Barony had been skat or tax-free "bordland", probably starting out as earldom demesne land before coming under episcopal control. When the locus of secular power moved to Kirkwall the church seems to have been granted the earldom land holdings (Crawford 1995, 96-99).

[4] The origins of the Barony name are obscure, but it is probably sixteenth-century (Thomson 2008, 57). The Barony is described in the *Original Name-Book* as: 'A large and well cultivated district, comprising some excellent farms and a number of small Crofts situated on the north east of the mainland of Orkney and on the north boundary of the Parish of "Birsay" It is bounded on the south by the district of "Marwick." "Kirbuster" on the east, and the district of Above-the-Hill on the north east' (Vol. 1, sheet 088, OS1/23/1/64 http://www.scotlandsplaces.gov.uk/digital-volumes/ordnance-survey-name-books/orkney-os-name-books-1879-1880/orkney-volume-01?transcription=1 last accessed 11/2014).

The area is omitted from the 1492 *Rentals* and thus place-name and farm details only appear in the 1595 survey, by which time the lands had passed to Stewart lords (Marwick 1952 and 1970; Morris 1989, 16-21; Thomson 2008b, 57-74). Thus the early place-name history of this large block of important land is difficult to trace, and because it was so productive 'old patterns of settlement were continually being obscured by reassessment and rationalisation' (Thomson 2008b, 70).

However, it is fairly clear that large and long-established farms were arranged around the Burn of Boardhouse as illustrated by Alexander Aberdeen's 1760 map of the Barony.[5] Thomson suggested the area around the modern farm of Boardhouse was the heart of the earldom estate, 'a central zone characterised by successive big farms', of which the first may have been Thorfinn's original manor-farm' (2008b, 74). Significant place-names cluster around the upper reaches of the Burn and provide important clues to the "central place" character of this part of Birsay (Fig. 4.65).

A now vanished *Langskaill* ON *lang-skáli* ('long-hall')[6] does not appear on any old maps nor in the *Original Name-Book* but was, according to Marwick, located somewhere between Breck and Boardhouse (Marwick 1952, 136 and 1970, 66). Referring to the Aberdeen map, Thomson located the land slightly to the west between the Old Manse (Handigar on modern maps) and Boardhouse.[7] This links the farm even more closely to an area of high archaeological potential (Fig. 4.65). To the east of a modern bungalow is a slope marked by small sand blows and mounds (no. 21); a larger area of disturbed ground to the south-east coincides with a spur of higher ground running down towards the bungalow and visible on aerial photographs (Fig. 4.66). Although this may simply be a reflection of the variability of the sandy links landscape the location echoes that of the longhouse on Snusgar (Sandwick). The original *Langskaill* may be under the buildings of Boardhouse, but it would be interesting to undertake geophysical survey across the sandy fields between Boardhouse and the Old Manse to the west.

[5] Aberdeen, *Plan of the Barony of Birsa* OA, D8/W20.
[6] Listed in the 1595 *Rentals* (digitised version of Bodleian Library G. A. Scotl. 8° 456, p. 56, accessed last 10. 2015); the same page also lists Breck and Stoif (Stove) together.
[7] The Langskaill farm was amalgamated with Boardhouse in around 1734 (Thomson 2008b, 70).

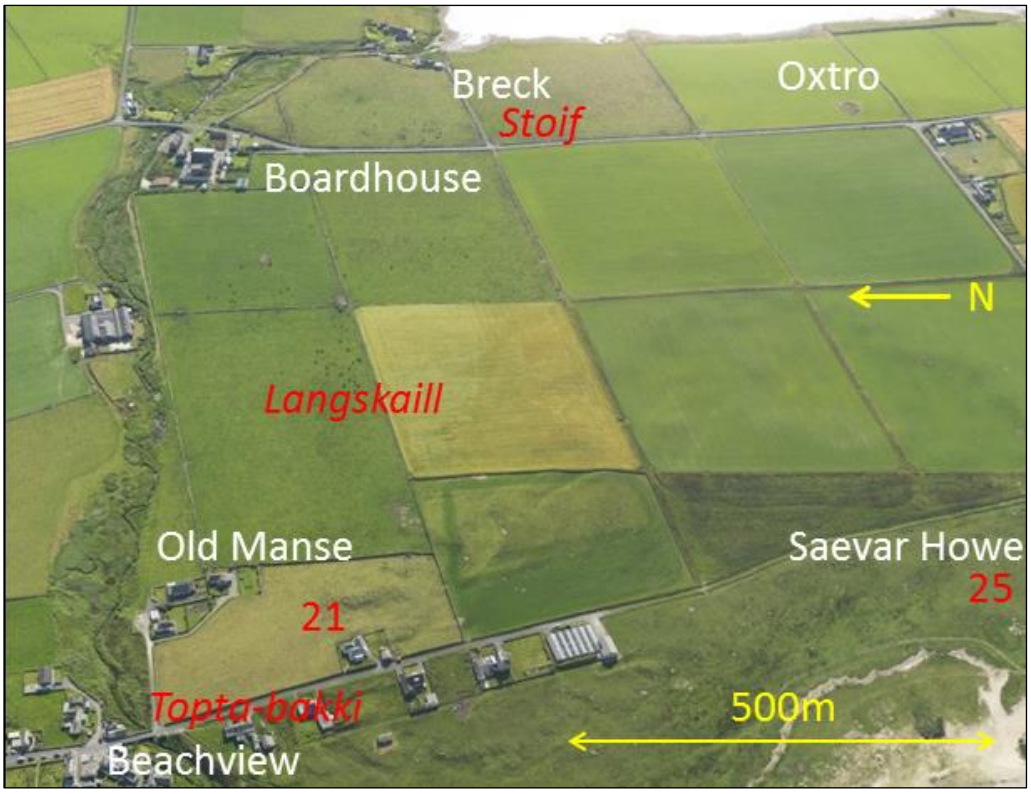


Fig. 4.66: central Birsay looking east: adapted from © Canmore image DP00083309.

Langskaill is not the only place-name around the Burn linked to high-status buildings. Breck was listed along with '*Stoif*' (Stove) in the 1595 *Rentals*: the latter plausibly the medieval successor to *Langskaill*. Just over 500m east of Boardhouse and *Stoif* on the slopes above the loch is the modern house of Wattle. This name derives from ON *veizla* (feast), (Marwick 1952, 132; 1970, 39)[8] and implies the former presence of one of the farms providing sustenance to peripatetic earls and their retinues.[9] As at Tuquoy (Westray) the probable Birsay Langskaill site is less than a kilometre inland from a coast-edge rich in Viking-Late Norse archaeology. At Birsay the Beachview sites (no. 20), in an area named Tuftabank, ON *topta-bakki* ('slope of house-sites'), and Sævar Howe, ON *sævar-haugr* ('sea-mound') (no.25), along with all the coastal Viking-Late Norse sites north of the Burn, echo the

[8] Linking the Viking-Late Norse farm with the obligations of providing '…provender for the Norse Earls when they were resident in Birsay [i.e. close-by but not at that farm]' (Marwick 1970, 39)

[9] It is interesting to note that the field immediately east of the Point of Buckquoy was named *Cleatfurrows* (Thomson 2008, 63). The Cleat ON *klettr* ('rocky outcrop') name often occurs in important settlement locations, for example on Westray and Sanday (see Chapter Eight). The Birsay name itself, from *Býrgisherað* ON *borg-herað* ('fortress' 'administrative district') is possibly illuminated by the geophysics conducted on the Point of Buckquoy which suggested an enclosure cutting off the headland (no. 10) (Griffiths 2006). Marwick refers to the Faroese use of Borg to describe a 'place shaped by nature that can easily be cut off' (1952, 30-1): in the case of Birsay this might therefore have been the Point rather than the Brough itself, with a prominent settlement – Cleat – by the enclosure ditch and bank.

rich coast-edge distribution of sites on the Bay of Tuquoy (Westray). (The summary Chapter Eight on skaill-sites will consider whether there might be a distinction to be drawn between Skaill and Langskaill sites.)

Distribution of Mounds and Settlement in Birsay Bay: Table 4.05; Figs 4.67-69

Classification challenges

A range of sources have been used to compile Table 4.05 of mound-sites in Birsay. The table includes 41 archaeological mound-sites; some entries include more than one mound. There is a great divide between the cluster of sites around the Bay, many of which have been partially or substantially investigated, and those in the hinterland of which the vast majority have been classified by location and morphology and occasionally visible stone. Unsuprisingly archaeological work has focused on the Brough, the Point of Buckquoy, and its immediate hinterland, and the distribution of mounds in the wider hinterland, around the lochs and in the higher ground, is therefore a relatively poor reflection of past settlement and burial mounds.

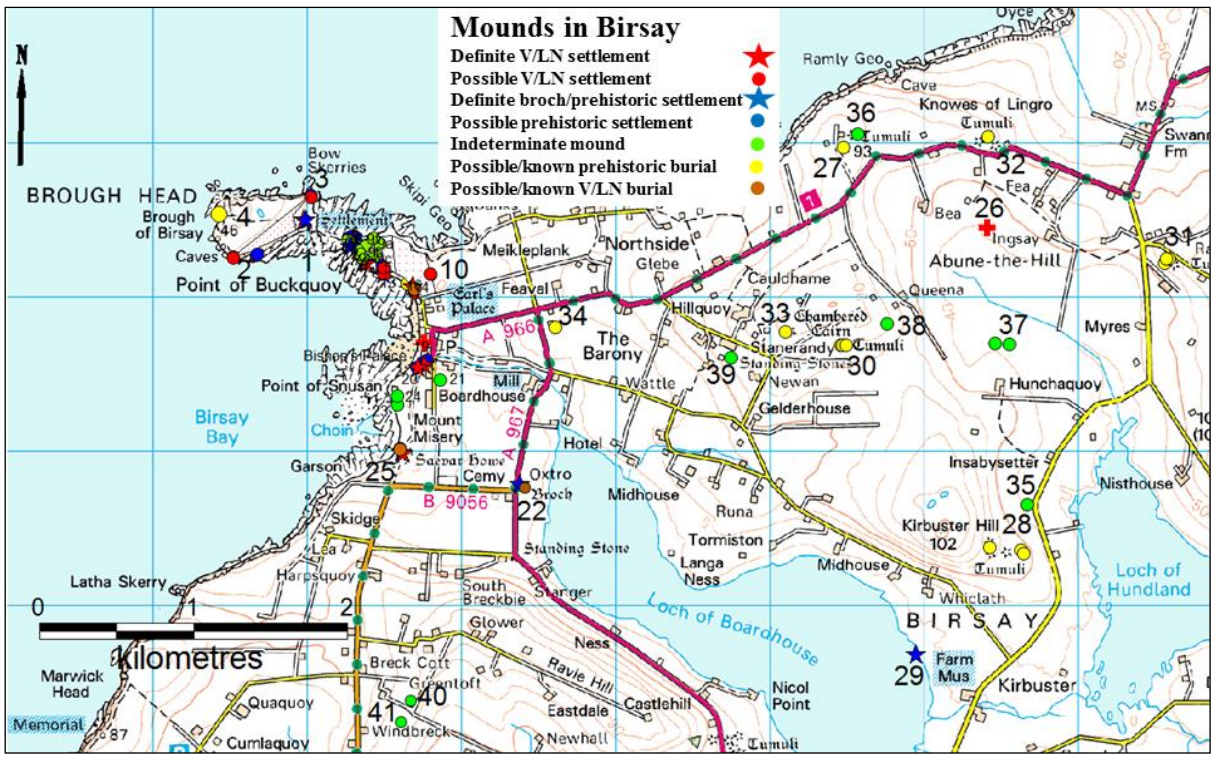


Fig. 4.67: archaeological mounds in Birsay Bay and its hinterland: detailed Figs 4.68-9.

Areas of Investigation

The Birsay area will be divided into two: the Brough, the Point of Buckquoy and area immediately around the Bay; and the hinterland. The hinterland will be discussed first and the remaining areas discussed as the context for specific investigations. If the hinterland is excluded, as Morris noted, there is a 'remarkable density of archaeological sites in this locality' (Morris 1996, 257).

Area 1: the hinterland: Fig. 4.68

The immediate hinterland is a gentle range of hills rising to four open summits of over 100mOD, cloaked in damp, peaty, rough pasture and enclosed by the three lochs of Boardland, Hundland and Swannay. The only possible mound-related Viking-Late Norse archaeology comes from mid-nineteenth-century excavations at Oxtro broch (no.22). A number of short-cist burials were recorded cut into the mound formed over the broch remains (Petrie 1873, 76-8). Although often interpreted as Pictish graves, the finds apparently included a ringed-pin and the head of a ball-type brooch (Graham-Campbell 1984), suggesting the broch-mound was re-used for Viking-Late Norse burial (e.g. Morris 1989, 26). This adds yet another possible site to the notable catalogue of Viking-Late Norse burial into settlement mounds in Birsay (see below).

Almost all the recorded mounds in the hills are either probable prehistoric burial mounds or indeterminate sites. The former are all prominently sited to be visible, on the crests of spurs or on ridges amidst the hills with views out to sea or across the lochs (nos 27, 28 and 30-34). None would have been visible from the immediate bay area. All those mounds are small, between 5-16m in diameter and at many of the sites there are several known mounds: 13 at no. 28, three at nos 30-31 and four at no. 32. Site 33 is probably a chambered cairn. The siting and size of the indeterminate mounds (nos 36-39) suggests they are also burial mounds. Although the number of sites with multiple mounds is perhaps unusual, the distribution echoes the pattern of mounds in the hills elsewhere on Orkney. There is an interesting absence of burnt mounds, with only one group just outside the area, in wet lowland south of the Loch of Hundland (HY299250-HY285247).

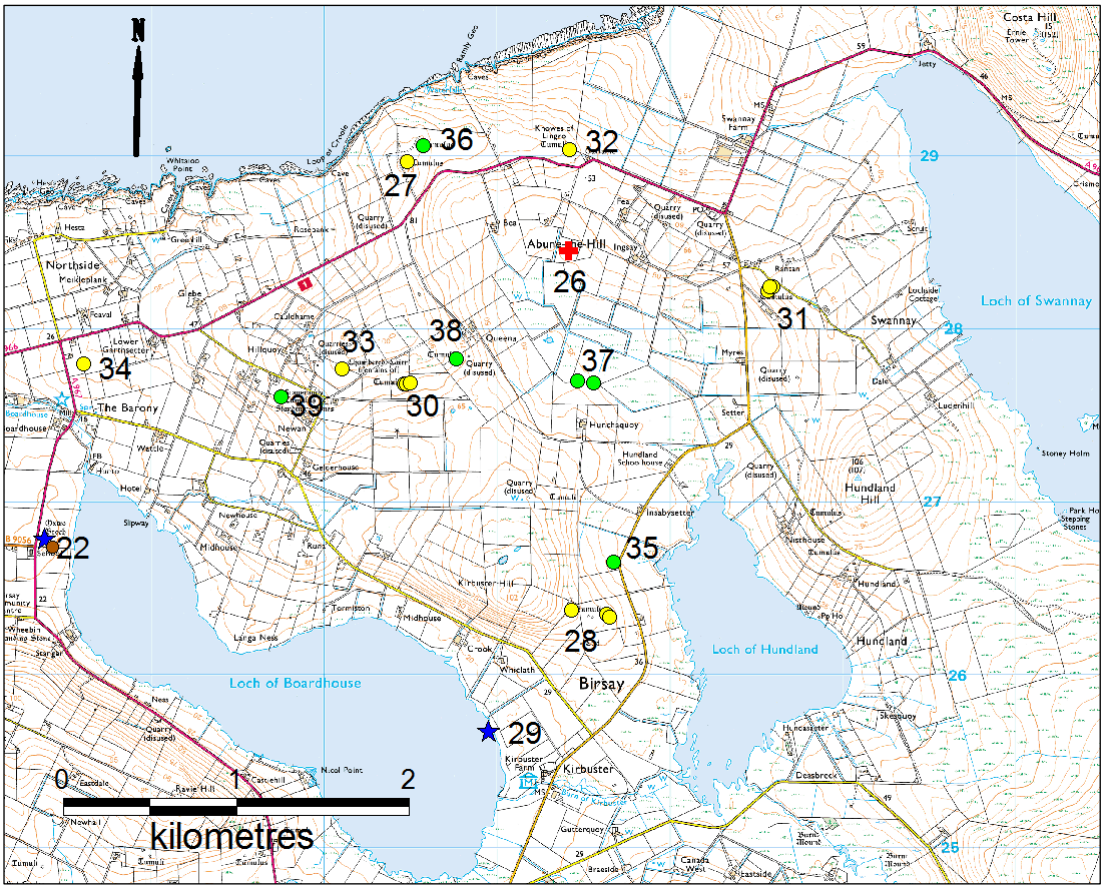


Fig. 4.68: mounds in the hinterland of Birsay Bay.

The much-mutilated mound-site 29 by the Loch of Boardhouse is interpreted as an Iron Age settlement mound on a small D-shaped promontory. Almost nothing is known about a possible chapel just to the east. Foundations of this putative chapel at Kirbister were still visible on the north side of the burn in the 1920s (Fraser 1924, 25), and these with a possible burnt mound were noted in the *Original Name-Book*. If the long-disappeared chapel was built over a burnt mound that would provide an interesting parallel with the twelfth-century church in Birsay but there is unfortunately insufficient information to be certain. Near one of the large, old farms in the north, Bea ON *Bu* ('farm') – probably once a head farm – is another reputed chapel site (no. 26).

Area 2: The Brough, the Point of Buckquoy and Birsay Bay: Fig. 4.69

This section will summarise the mound archaeology of the Point of Buckquoy and link that archaeology with surrounding sites around the bay and on the Brough.

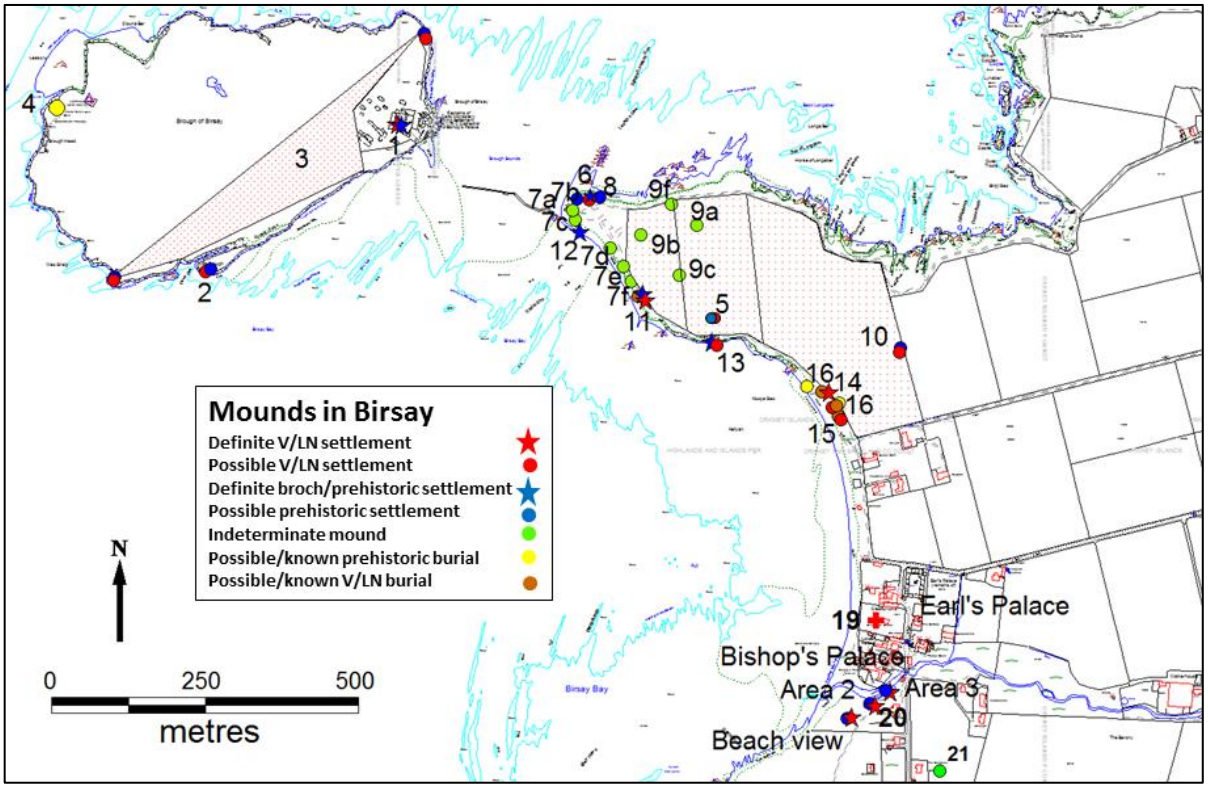
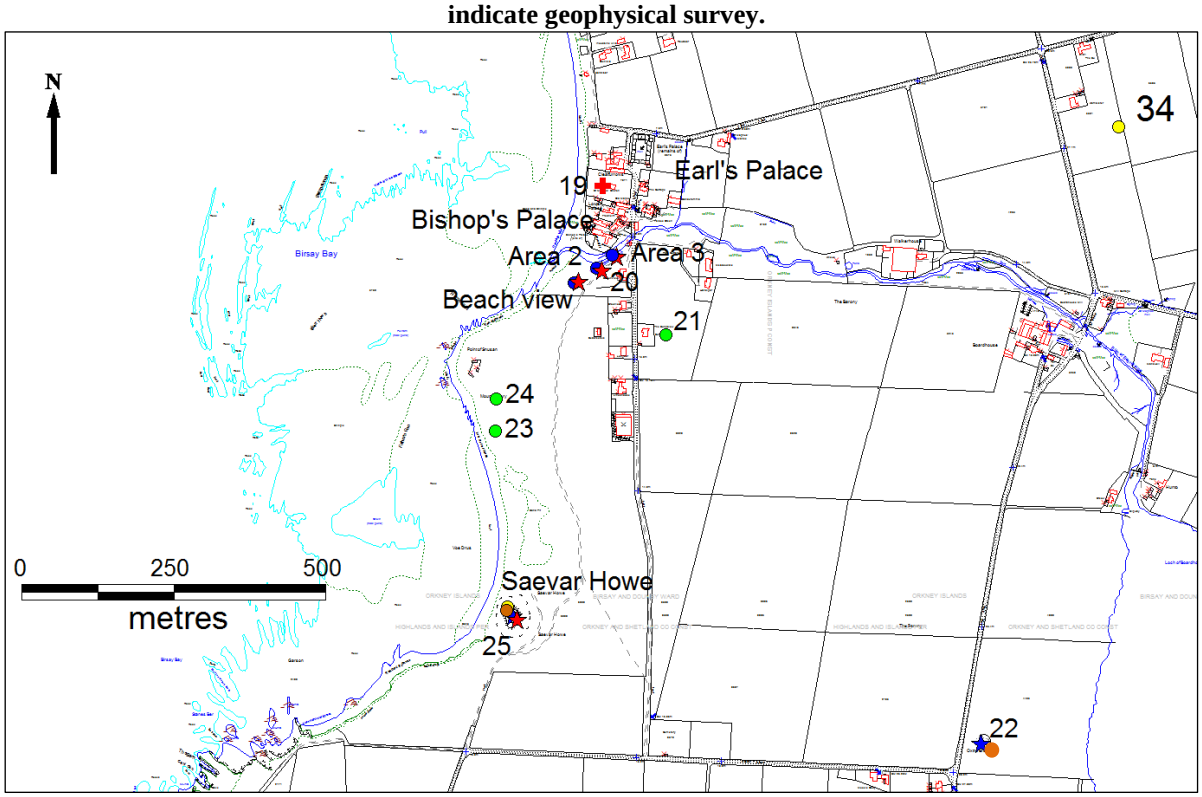


Fig 4.69 (above and below): mounds on the Point of Buckquoy and Birsay Bay. The red stippled areas indicate geophysical survey.



There is a profusion of mound archaeology on the Point of Buckquoy and around Birsay Bay (Fig. 4.69). The excavated settlement sites are analysed as mounds below. The west-facing land rises gently east and south-east from the Point, and south from the Burn of Boardhouse with windblown sand concentrated in The Links, also south of the Burn. Some of the mounds are located in The Links, including large indeterminate mound Mount Misery (no. 24) and smaller mound site 23;[10] while others are on the Point of Buckquoy including a cluster of indeterminate mounds (9a, b, c and f) discussed below. Some of the archaeological erosion-sections recorded by Chris Morris' Project (nos 7a-f) cannot be dated or associated with mounds, especially as the eroding Point changes rapidly, but have been classed as "indeterminate mounds" on the grounds that all the investigated archaeology in the vicinity has proved to be mound-related. The remaining indeterminate mound, east of Beachview (no. 21), may be one large damaged mound or a cluster of mounds. Seven probable/known Viking-late Norse, prehistoric and multi-period settlement mounds line the coast-edge along the curves of the two bay-halves and the southern and western edges of the Point: from site 6 in the north, to Sævar Howe (no. 25) in the south. Almost no work has been done off the immediate coast-edge, apart from the geophysics/trial excavation on the Point of Buckquoy (no. 10). As a consequence very little is known about the antecedents of the modern village or any sites that might lie slightly inland and north and south of the Burn of Boardhouse.

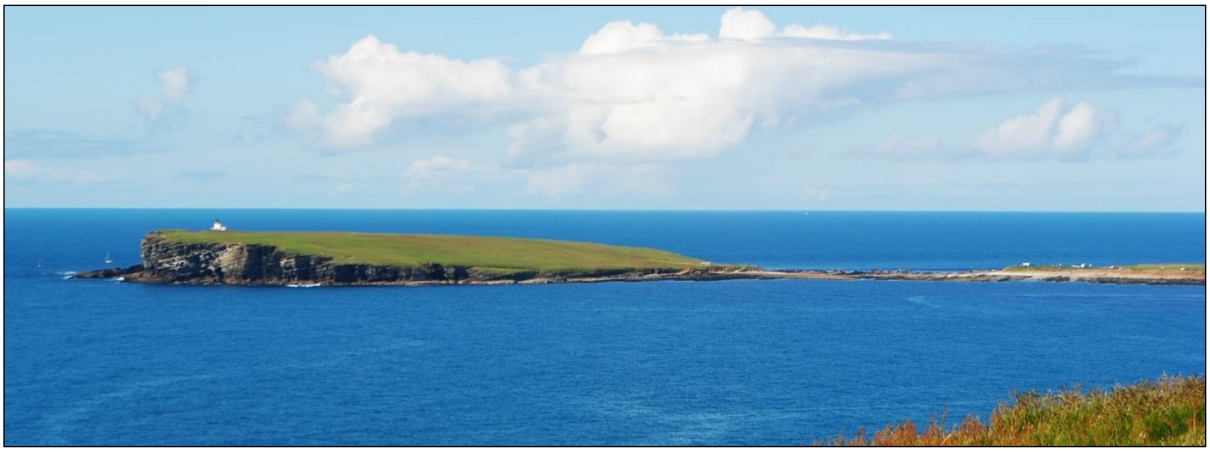


Fig. 4.70: the Brough looking north-west with the Point of Buckquoy on the right.

[10] Neither mound produced an obviously archaeological geophysical footprint in survey done by the BSLAP (DSR 2008), the sand may be masking features.

The Brough of Birsay (Curle 1982; Cruden 1965; Hunter 1986; Morris 1989, 1996; Radford 1959) The Brough of Birsay is an exceptional and controversial site: a significant Pictish settlement which continued into the Viking-Late Norse period. The nature of the extensive Pictish remains is still debated: the finds have been analysed but of the buildings they came from the 'precise form is unclear' (Graham-Campbell and Batey 1998, 13). While many Viking-Late Norse buildings spread out round the chapel, investigations thus far have failed to determine whether this settlement included Earl Thorfinn's minster or indeed his or his bishop's residence. The history of investigations has also been difficult and beset with slow and incomplete publication. The visible remains although striking, belie the complexity of the archaeology.

Fig. 4.71: the Brough looking west-north-west © RCAHMS Canmore Image SC00536326.

It is not intended to conduct an in-depth review of archaeology on the Brough. The Pictish community there was obviously important – possibly running a power base – and whether monastic or secular focused at least partly on fine metal-working activity.[11] The Brough continued as a 'major concentration of activity' (Graham-Campbell and Batey 1998, 14) into the Viking-Late Norse period: the small twelfth-century stone church[12] standing in its enclosure and the consolidated wall

[11] The Pictish symbol stone suggests the graveyard was active in this period and the significant Pictish artefact assemblage has been published (Curle 1982). The prevalence of Pictish metal-working activity (possibly continuing into the Viking-Late Norse period) might suggest this was a special location (Morris 1996, 254).
[12] There may have been a small twelfth-century monastic establishment overlying the earlier church of uncertain date and context, as well as the graveyard going back probably to Pictish times (Morris 1996, 252). Around a dozen skeletons have been reported but none of them have been dated: the grave-slabs and stone crosses still visibly mark many more burials (ibid. 193 and 221).

foundations now visible only hint at the complexity of the palimpsest of buildings, yards and working areas (sub-rectangular structures to the west, with a tangle of buildings in the east; Fig. 4.72).[13] These are known to encompass Pictish and Viking-Late Norse structures and even where sub-rectangular, grass-encroached wall-lines suggest a single phase, the archaeology is characterised by frequent, direct Viking-Late Norse re-use of Pictish sites, and much rebuilding, reconfiguration and incorporation of existing structures and surfaces (Graham-Campbell and Batey 1998, 164; Hunter 1986).

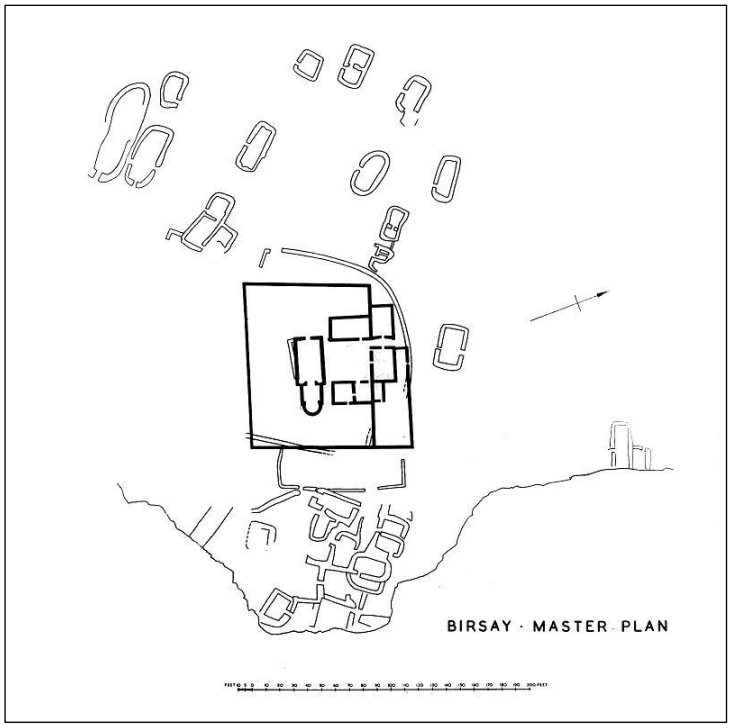


Fig. 4.72: the Brough: a multi-phase site beginning in at least the seventh-eighth centuries possibly as a monastery with chapel and graveyard; probably occupied by Norse in the ninth century, although dating is problematic. Norse settlement continues into at least the twelfth century, with complexes of houses east and west of the church. Pilgrimage to the church continued into the medieval period © RCAHMS.

Much has been lost to erosion on the eastern edge and recent geophysics indicated yet more settlement remains lying to the south-west (no. 3). However the Viking-Late Norse settlement does not appear to have been built on any notable mounds. The sloping, exposed Brough is not naturally mounded and, although the cleared outlines of the surviving foundations obscure any slight topography, the structures built directly over Pictish buildings have not created discernible mounds. Midden-type

[13] Work to the north and west of the churchyard was essentially concerned with the clarifying building outlines for consolidation. Excavations between 1956 and 1961, yet to be fully published, concentrated on the area to the west of the church (Cruden 1958, 274). In those areas of Viking-Late Norse domestic occupation there was evidence for additions, modification and rebuilding (Morris 1996, 254). Unfortunately such records as are available of work west of the churchyard do not discuss any midden-type deposits.

material does seem to have been used for levelling-up building interiors (see fn. 14), yet no large structured or mound-creating external middens have been recorded (Hunter 1986). There was perhaps relatively little animal/byre waste available: such midden as was recorded seems to be more domestic, mostly related to cooking. Hunter suggests there was little midden around because the Brough dwellers could throw it over the cliff (ibid. 107). The occupation may also have been seasonal with few animals kept on the Brough, further reducing the accumulation of midden-type material for re-use.

Even if it was not ecclesiastical the Viking-Late Norse Brough settlement had a special status: it was 'unrepresentative (Hunter 1986, 174). It is not certain it was the location of the earls' permanent residence between the later-eleventh century and the 1130s, or of the minster. However, it was a substantial, strikingly-located settlement: it is yet to be ascertained how many dwellings might have been in use at any one time, but several buildings were probably contemporary, for example on the eastern coast where Hunter excavated (1986). 'The Norse community on the Brough was clearly numerous and diverse' (Wickham Jones 1998, 135), and this despite the soil on the exposed Brough being unsuitable for cereals and supporting relatively poor grazing. There is also no evidence to suggest the Brough was not a tidal island in the Viking-Late Norse period; in winter and at times of higher tides crossings would have been difficult, for animals as well as people.

The mainland of Birsay on the contrary was one of the best areas in Orkney for cultivating bere barley. So although the Brough settlement may have been politically and socially dominant it must have been dependent on the mainland for beef and in particular grain.

Excavations on the Brough

The history of excavation on the Brough has been difficult: a thorough summary awaits publication of the third volume of Christopher Morris' *Birsay Bay Project*. The 1930s' excavations were important for the analysis of the Pictish finds and identification of bronze-working debris (Curle 1982), although

structures contemporary with these assemblages were not identified.[14] When Hunter and Morris excavated east of the churchyard in 1973-4 they recorded how Pictish layers had been preserved by the Viking-Late Norse practice of "levelling-up" with midden-type material and rubble: 'excavation of Room 5 demonstrated the use of midden as a levelling material' (1982, 124-7). They also elucidated overlying, stratified Viking-Late Norse deposits including occupation layers and structural elements, demonstrating the complex sequences created by structural re-use and extreme locational stability. The first two of the three Viking-Late Norse phases had been dated to the late-ninth to tenth centuries on artefactual evidence (Morris 1996, 231; Curle 1982, 53-55). Although there is insufficient information to determine whether the midden-type material recorded was redeposited from accumulations elsewhere, or slowly built-up through direct dumping, or a mixture of these processes, it was described broadly by Curle as comprising peat-ash with bone, shell and artefacts. Such material was recorded in the "lower Norse" buildings and in dumps on the overlying "middle Norse" occupation surfaces (Morris 1996, 236-7 reporting Curle).

To the west of the churchyard the earlier investigations showed a range of relatively large halls (up to c. 20m) with smaller outbuildings, as well as structural complexes of halls with added rooms, annexes and extensions. There were also apparently simple longhouses and unusual networks of "rooms" – although these may have been elements in superimposed complexes – and, Ritchie suggested, no obvious "true" longhouses with a byre end (1993, 54). With few animals grazing on the Brough, or likely to be over-wintering, there was no need for byre accommodation and no byre waste to add to middens.

[14] During 1934-9 most of the features now displayed were excavated. In his 1996 volume (209-255), Morris provides a re-evaluation and summary of 1930s work east of the churchyard, providing a better excavation context for the finds (Curle 1982). This area's 'bewildering complexity of structures and occupation deposits' remains the only published sector with 'meaningful stratigraphic sequences' (Morris 1996, 252): the rapidly eroding eastern cliff-edge area was re-examined by Hunter (1986) and the structural and stratigraphic complexity further demonstrated. There appeared to have been four major phases, which corresponded to Hunter and Morris's 1973-4 investigations in Room 5 (Hunter and Morris 1982). The four phases are: 1. **Pictish middens**: which must mean buildings in the vicinity, dominated by fine metal-working debris; 2. **Lower Norse**: structural fragments including benches, box-hearths, partitioning, paving and a complex drainage system, encompassing two constructional phases and two phases of internal midden 'accumulation', which included residual Pictish artefacts (Morris 1996, 252) – this suggests redeposited midden-type material; 3. **Middle Norse**: 12 small sub-rectangular buildings 'built on top of accumulated midden and debris' (ibid. 253); and 4: **Upper Norse**: which saw an expansion of the "rooms" complex and midden infilling of many earlier elements.

Hunter's rescue excavations of 1974-82 of three partial, eroding sites on the cliff-edge provided some valuable information for this study. His work highlighted the 'intricacies, characteristics and techniques of …Norse constructions' (1986, 168). The analysis makes clear that, although these settlements became only slight mounds, nevertheless many of the architectural devices encountered on mound-sites were deployed. There was perhaps more emphasis on evolution from earlier structures: 'replacement and adaptation, rather than tell-like super-imposition' (ibid. 23). Hunter re-examined the cliff-edge element of the "eastern tangle", and discerned seven Pictish structures dominated by metal-working debris. A short hiatus followed when some parts of the area were not used, or deliberately levelled up (ibid. 85 and 172), but on Site IX Hunter proposed uninterrupted occupation into the Viking-late Norse period with 'possible adoption of standing structural features' (e.g. Structure 16 dated to the later-eighth and early-ninth centuries). Overall the Viking-Late Norse structures of that earliest phase (dated however on structural and steatite evidence only) initially *retained* the preceding layout: there was 'conformity to a pre-existing settlement pattern, which was respected without obvious topographical or functional reason' (ibid. 72).

There was then major structural change on all three of Hunter's sites, interpreted as imposed by a controlling authority and possibly including a major feasting hall (Structure 17); buildings on a new, common alignment were superimposed over old. Hunter's final phase was dated to the early-eleventh century and described as akin to a 'shanty town', with shoddy building and inferior constructional changes to existing buildings (ibid. 142-3 and 148). However the description of 'walling methods [that] differed from structure to structure', sub-divided units, and partial and total collapse (ibid. 148) reads less like 'jerry building' (ibid. 143) and more like a record of the development and abandonment of one particular building complex. The dating of all phases was acknowledged to be difficult (ibid. 142). It is tempting to link this final configuration with the establishment of a permanent earldom site on the mainland, or even the later shift of focus to Kirkwall but, even if it was not as dramatic a down-shift as Hunter portrays, the dating and excavation detail is such that this should be resisted. However, a settlement so dependent on the mainland must have been sensitive to shifts in the locus of power.

Conclusion

The Brough settlement was different and probably distinctive but it is apparent, despite the current lack in excavation detail, that mound-related building techniques were still fundamental to the development of the site.

Excavations and Investigation on the Point of Buckquoy

History of Investigation

The coast-edges of the Point, as well as the Links and the beaches of Birsay Bay, have been badly affected by erosion and this, and the fact that the Point leads across to the much-investigated sites on the Brough, has focused considerable investigative effort on its shoreline and fields. The first recorded investigation on the Point was before the Second World War by James Fraser, who conducted a preliminary dig into the Knowe of Buckquoy (no. 5). The results were not sufficient to determine if the mound contained settlement, or as F. T. Wainwright suggested, a stalled cairn (OS card for HY22NW11). Wainwright recorded other mounds on the Point (summarised in Morris 1989, 28-36), and carried out a small rescue excavation at its end. This remains unpublished, but the site was re-excavated by the *Birsay Bay Project* in 1980 (Morris 1989, 71-78). However, the most substantial work before Morris' concerted campaign was the excavation of the mound site now known as Buckquoy by Anna Ritchie in 1970-71. Those excavations at Buckquoy (no. 11) and at Sævar Howe (no. 25) are dealt with below.

Christopher Morris' work in the 1970s-1980s did much to contextualise early efforts by pursuing 'rescue archaeology in a research context' (1989, 294). The project began with a coastal survey which recorded 25 possible archaeological sites in eroding beach-sections from the end of the Point to the edge of the village (Morris and Emery 1989, 36-43).[15] The taking of environmental samples and six vertical "Cutting" excavations followed at the most promising sites, along with small time-critical

[15] The descriptions do not, unlike the *Coastal Zone Assessment* surveys, routinely record any mounds above or stretching behind the visible remains but, for example, the area around Wainwright's excavation, no. 6, and nos 14-16, are still discernible as mounds (Author survey; Morris 1989 Illus. 20, p. 37). Most of the obviously archaeological sites noted by Morris, but not investigated, further comprised stones, midden layers and possible structural stone.

rescue excavations, for example of an eroding cist. Some of those “Cuttings” were explored further with small area excavations behind the sections along the Point (Fig. 4.69): Areas 1 and 2 (nos. 14-16); Areas 3-5 (no. 13) and Area 6 (no. 6). These are covered below. This work demonstrated the complexity and density, perhaps the uniqueness, of the settlement and burial archaeology and provided detailed environmental information.

Fig. 4.73: the area around Red Craig nos 14-16, looking north-east in 2015: the cliff is up to five metres high.

This scattered distribution of small-scale excavations inevitably produced results which were difficult to date, phase and understand as structural or inter-related sequences. The excavators acknowledged the difficulties of correlating phases from the initial vertical excavations with those of subsequent small area excavation (Morris 1989, 279). A mound linked to nos 14-16 was clearly of significance in the Viking-Late Norse period, but only its margins were explored. The excavation of sites south of the Burn in Birsay Village also revealed the huge potential of the linked mounds there, but was limited to exploring a small area of upper layers. The survey work of the BSLAP in 2003-4 added further possible sites to the catalogue (no. 10), but there is still enormous potential for larger-scale excavation on the Point, north of the Beachview site and on Sævar Howe, as well as for work within and east of the village (no. 21).

Archaeological investigation on the Point of Buckquoy

F. T. Wainwright's small, sketchily documented 1960 excavation on the northern eroding beach-cliff at the very end of the Point revealed fragments of circular structures, midden-type deposits and peat-ash (no. 6; reported in Morris 1989, 71-80 and 281). Artefacts re-discovered later included Roman, Late Pictish and tenth- to twelfth-century pottery (ibid. 76). This early work foreshadowed what is now known to characterise the Birsay Bay area: an unusually dense distribution of multi-period settlement mounds, as well as a significant burial record for the Viking-Late Norse period.

One of the 1980 small excavations Area 6 (no. 6) re-examined Wainwright's excavations (Morris 1989, 80-91) and confirmed a sequence of midden followed by structures. Bone from the underlying midden-type deposits dug by Wainwright returned a Late Neolithic-Earlier Bronze Age radiocarbon date of 2630-2180BC; while red deer bone from the re-excavation produced an Early Bronze Age date, 2285-1690BC.[16] Morris's "Cuttings" of 1978 also discovered a similar sequence of middens and structures on the southern side of the Point about 40m from Area 6 (no. 12).[17] Extensive middens there, at the same primary phase in the sequence, were dated to the Middle Bronze Age (Morris 1989, 97-107and 282).[18] Although it is impossible from those small interventions to unpick the complexity and main phases of the activity represented by these sequences, the Point was obviously an important settlement location in early prehistory. The finds from Wainwright's excavation suggest the mound(s) created by this early settlement may have been re-used in later periods.

Wainwright also noted five mounds visible across the Point of Buckquoy, perhaps explaining why a nearby geo is named Castra ON *kǫstr* ('heap or pile').[19] By 1980 one of those mounds had been excavated comprehensively by Anna Ritchie (no.11), and the Knowe of Buckquoy superficially by James Fraser: he reported wall-faces, midden and peat-ash (no.5). The Morris project conducted a

[16] RC14 3895± 60bp (GU-1557) and 3570±75bp (GU-1640).
[17] Other, possibly related midden deposits were also discovered in the coastal survey of that area.
[18] 3260±180bp (GU-1222) and 3260± 90bp (GU-1556).
[19] This geo runs south-west to north-east approaching the Point at around mound no. 12.

plane-table survey in 1982, adding a small sixth mound to the catalogue (1989, 34).[20] In 2003-4 the BSLAP carried out topsoil magnetic susceptibility survey and magnetometry across three fields of the Point, encompassing the mounds and running east to the wall/track defining the Point's merging with the mainland (DSR 2004-5, 6-7; no.10). The magnetic susceptibility survey picked up areas of raised response, suggesting settlement remains or burnt material, over the flanks of mounds 9b and 9c, around the remains of the two excavated mounds (nos 11 and 5), but also more extensively in the far south-east of the survey (no.10). The magnetometry, targeted on the mounds, was inconclusive but demonstrated they were differently composed and both mound 9a and the Knowe in particular returned the patchwork of highs and lows often produced by sand settlement mounds.[21] The results in the east were interpreted as a showing a linear boundary across the neck of the peninsula with a collection of anomalies to the west of its central portion possibly representing settlement remains (Griffiths 2006).

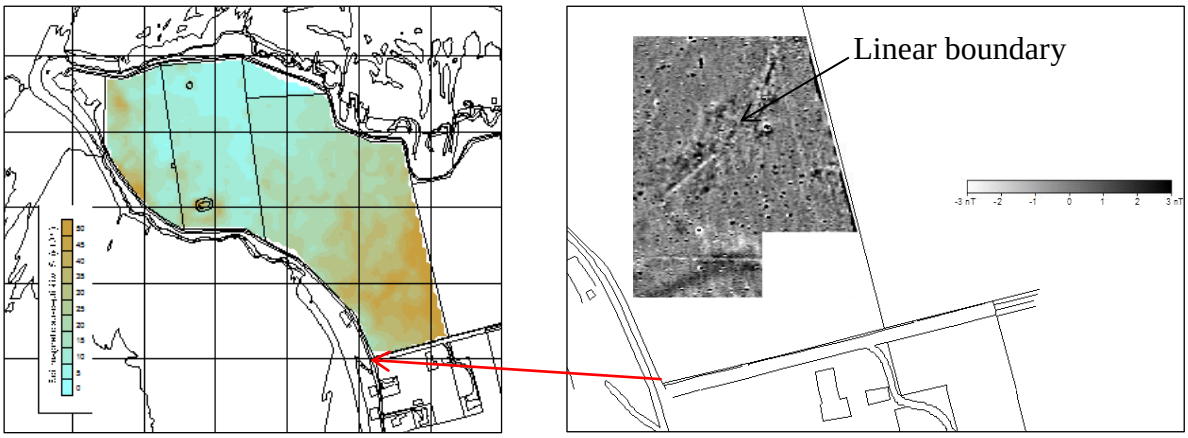


Fig. 4.74: topsoil magnetic susceptibility (left) and magnetometry (right), Point of Buckquoy ©BSLAP.

What do these results say in summary about settlement mounds on the Point? Mound 9a may be a settlement mound, but only excavation would confirm this; and the Knowe of Buckquoy, although interpreted as a Neolithic stalled cairn, remains a good candidate for another settlement focus. Mounds 9b, 9c and 9f might contain burial. Excavation has confirmed settlement at the end of the Point (earlier

[20] Aside from the Knowe and the mound excavated by Ritchie two larger mounds were recorded at 17-18m in diameter (one with a sheepfold on top no. 9a, one with protruding stone no. 9b: a third no.9c was very amorphous with a wall running over it, while the new mound was a mere 3.5m in diameter, no.9f).
[21] Some linear features were also discernable in the fields: small excavations in 2004 (DSR) revealed a ditch and wall, neither of which could be dated. The linear anomaly west of the Knowe of Buckquoy produced a U-shaped ditch; the east-west anomaly to the north revealed stone wall foundations.

prehistoric), and at Buckquoy (Pictish with Viking-Late Norse), and, as will be discussed below, at "Red Craig" (no.13; Pictish with Viking-Late Norse nearby) and just to the south at "South of Red Craig" (nos 14-16; Viking-Late Norse). Finally there may be a cluster of buildings at the neck of the Point. Altogether this suggests a strikingly different settlement pattern to the nesses of, for example, Sanday (Chapter 7).

Excavations at Buckquoy (HY2436 2823; no 11): (Graham-Campbell and Batey 1998; Morris 1989; Ritchie 1977; Brundle et al. 2003)

The mound known as 'Buckquoy' on the south-western edge of the Point was excavated in 1970-71 as erosion threatened finally to remove a site already cut-into by the sea, truncated by ploughing and disturbed by a track running across its north-eastern flank.[22] Anna Ritchie published the excavation in 1977, although in 2003 she wrote regretting not producing a more detailed report (Brundle et al. 2003, 96). This regret was at least in part because Buckquoy, one of the few published Viking-Late Norse sites at that time, became central in discussions about the Pictish to Viking-Late Norse transition. Ritchie's contention that the 'admixture' of Pictish and Viking finds and 'the successive buildings on the same spot' across both periods implied some 'form of social integration' in the ninth century between native and incomer fed into debate and controversy (Graham-Campbell and Batey 1998, 164; Ritchie 1977, 175 and 192; for examples of the discussion see Bäcklund 2001; Crawford 1981; Smith 2003). The problem – common to all complex settlement mounds – was that the remains were very difficult to interpret and with hindsight it seems unwise to rely on evidence from Buckquoy to characterise the nature of the transition.[23] Half of the mound had already been lost to the sea and the upper levels were very disturbed. As a result there was almost no surviving stratigraphy except 'one of stonework': of often fragmentary walls and paving amidst rubble and midden-infill (Ritchie 1977, 175). Inevitably this meant relatively few securely stratified finds were discovered and assumptions

[22] When surveyed by Wainwright in the 1960s the low, coast-edge settlement mound was about 20m long.
[23] The clear and aesthetically pleasing plans of the phases (see Fig. 4.72) dull the reader's sense of the extremely difficult nature of the archaeological record. As Ritchie hinted in 2003 it would be instructive to have available more detailed plans of the phases. Only two plans were printed with many of the complexities – for example of paving – not fully represented. There is perhaps further research to be done in reassessing the stratigraphical archive.

necessarily made about the association of midden-type layers – and their artefacts – with structural phases.[24] The buildings and parts of buildings uncovered also represented a small part of a complex of structures, only House 4 was apparently complete.

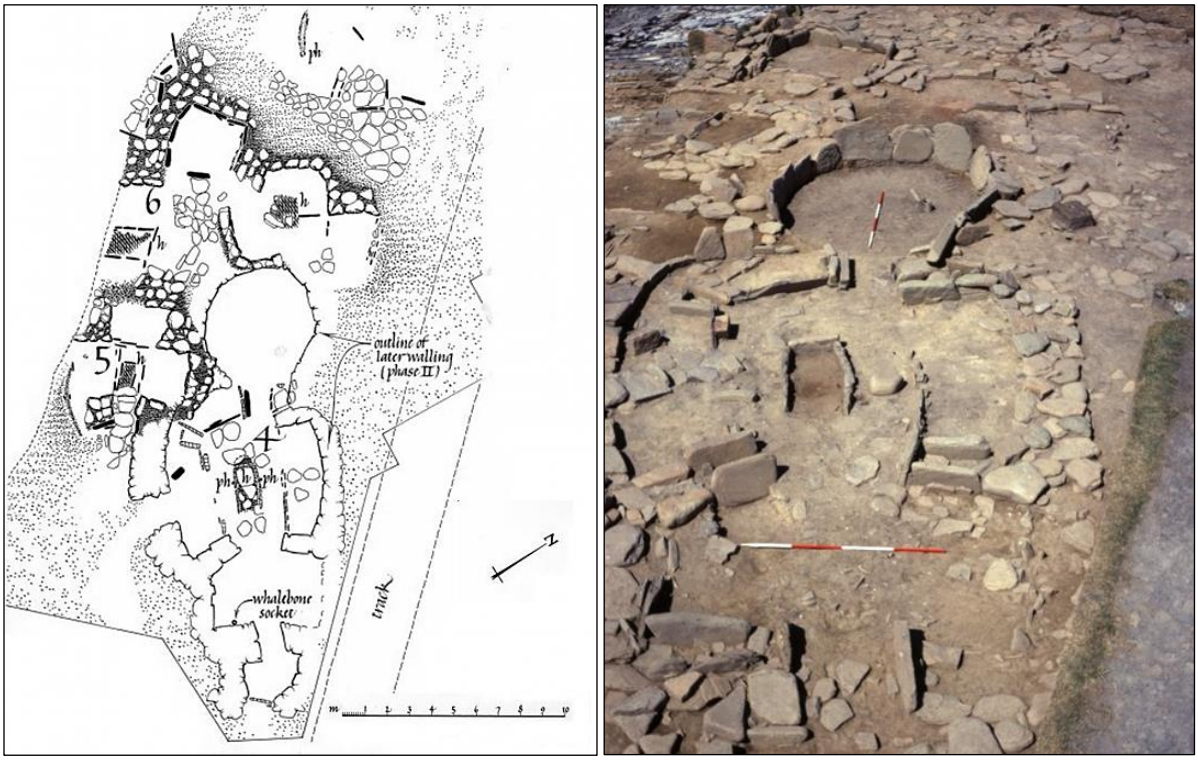


Fig. 4.75: (left) plan of Phases I-II, Pictish settlement at Buckquoy with north arrow and scale inserted © Canmore Image SC00726766; (right) Pictish house 4 at Buckquoy looking north-west © Canmore Image SC01164699.

Excavation summary

Five major structural phases were uncovered interpreted as spanning the seventh-tenth centuries, comprising two Pictish (Fig 4.75) and three Viking-Late Norse phases, and two burials, one inserted into the mound created by the abandoned buildings, and one just north and separate from the structural focus. Two chambered buildings were succeeded in Phase 2 by the famous "jelly-baby" shaped

[24] The byre end of House 3 was reported as being used 'as a convenient dumping place for midden' and finds in that midden-infill were associated with *later* House 2 (1977, 185). In the later phase the house end of House 3 was covered by several layers of paving, so the infill was probably "levelling midden." Indeed House 2 activity could *not* have been infilling House 3 with midden as its paving overlay that infill. Such midden-infill was *redeposited* material, and that process might bring together material and finds from a number of phases. It was more likely that levelling material would come from *earlier* phases, not later or contemporary ones. Other sites such as Pool (Sanday) and Skaill (Sandwick) demonstrate the potential for high levels of artefact residuality in this type of layer. (It is not certain exactly what type of midden is being discussed, quickly-laid levelling midden or slowly accumulating material, but the argument is the same.) So artefacts attributed to Phase 4 (House 2) may well not be contemporary with the structure and it is perhaps relevant that the pottery was the same as the previous phase and the combs were of "Native form" (1977, 186). Finally it is not possible to distinguish between finds from the midden and those from *between* the paving – which likely *would* be from later Phase 4.

building House 4, incorporating circular and sub-rectangular elements, dug down through, and constructed over, the eastern edge of substantially dismantled remains of Phase 1 houses (Fig. 4.75). The wall-core of House 4 where it overlay Phase 1 structures was packed with artefacts, unlike the wall-filling of the rest of the building. The excavators suggested these artefacts originated in Phase 1. This thesis argues that the artefacts, or artefact-rich midden-type material, included in wall-cores were deliberately chosen – another version of special deposition – and this may have been true of the Pictish as well as Viking-Late Norse periods. None of the finds assigned to the early phases, including an Ogham-inscribed spindle whorl, were inconsistent with the Pictish dating.

The Viking-Late Norse Phase 3 was interpreted as beginning with House 3, built over the rubble and soil-infilled north-western end of House 4; this building closely reflects the outlines of House 5 and 6 below and presumably reused some of the wall foundations (Fig. 4.76). Not only was House 3, a possible byre, on the same alignment as underlying House 6, but also one of the stones lining the central drain was a re-used *in situ* orthostat from the hearth of the earlier building. No diagnostic finds could be attributed to this phase.[25] House 3 was then infilled with midden-type material and covered with layers of paving. It is not implausible that House 3 was actually a Pictish structure. The middle "Viking-Late Norse" structure House 2 although carefully flagged was apparently small: 2m by 3.65m. External paving related to this unusual structure – perhaps rather a building fragment or annex – lay over the infilled and partially demolished House 3. Most of the finds attributed to House 2 came from the midden-infill of House 3. As discussed in Fn. 24 it is entirely plausible that these finds came from a mix of phases:[26] House 2 cannot be securely phased with the information available. The final structural phase, House 1, was constructed over House 2: unfortunately all the finds and midden-type material relating to these more considerable remains were spread and mixed by ploughing. Nonetheless, even this assemblage was far from decisively Viking-Late Norse.[27] The sub-rectangular structure however did contain familiar Viking-Late Norse elements: varied wall-builds; a small

[25] Finds from the interior of House 3 could not be attributed to its occupation: no floor deposits survived.
[26] Anne Brundle discussed a possible Viking Late Norse bone pin from the House 3 midden (2003, 96).
[27] 'Despite the lack of diagnostically Scandinavian artefacts, the house plan(s)… indicate(s) Norse occupation': but the artefact assemblage from the proposed Norse levels 'is dominated by native products' (1977, 192). In 2003 Anne Brundle described most artefacts as Pictish (2003, 96).

unenclosed hearth; paved/modified entrances; and possible side-benches. More unusually under a flag in the corner of the building an infant burial was discovered and interpreted as a 'founding ritual' (Ritchie 1977, 188), another interesting example of possible special deposition within putative Viking-Late Norse buildings.[28]

Fig 4.76: plan of Phases II-VI (left) and I-II (right) at Buckquoy: drawn from Fig 4.75 above and © Canmore Image SC00727022.

The most significant *terminus ante quem* for the site was provided by the disturbed crouched pit-inhumation of a man, dug into the top of the settlement mound and accompanied by an apparently *in situ* silver penny half of Edmund (AD940-46) and other grave goods, including an early-tenth century ringed-pin.[29] As Ritchie noted, this burial into the abandoned mound added to the Orcadian corpus of inhumation into already existing settlement mounds (Ritchie 1977, 190; Thäte 2007; Thorsteinsson 1965, 163). Whether this was for reasons of 'economy' is another matter (Ritchie 1977, 190). When a rib thought to belong to this burial was radiocarbon dated it returned an Iron Age date totally at odds with the grave assemblage but consonant with the separate burial dug into the flank of the mound to

[28] Potsherds were also discovered under the flagged floor of House 4 echoing the pot sherds discovery at Skaill (Sandwick) (Brundle et al. 2003, 98).
[29] 'The ruins of House 1 had become a mound of earth and rubble by the time the burial was made' (Ritchie 1977, 192).

the north (Barrett et al. 2000, 6-9; Brundle et al. 2003, 103).[30] While the excavators proposed that the rib had been mixed into the skeletal remains to which they still argued the grave-goods belonged, this only emphasised the difficulty of relying on the phasing of this site to underpin arguments about the nature of early settlement. What is perhaps more interesting is the possible co-existence of pagan and Christian Norse burial practices on the Birsay Bay (see below).

Discussion

How does information from the site inform this study of settlement mounds? The treatment of midden-type material in the report is frustratingly general and it would be interesting to take this research further by re-examining surviving site records of House 3 middens. Referencing the small body of settlement sites then published [31] Ritchie noted that in two-thirds of those sites 'Norse' structures were established 'literally on top of earlier settlements', some occupied as late as the eighth century, suggesting 'a distinct Norse immigrant preference for settling on old occupation sites' (1977, 189). The nature and sparseness of the record in the 1970s means this conclusion cannot hold. The argument put forward in this thesis is that mounds, rather than old settlement sites *per se*, were the essential attraction, but was something different happening in Birsay? Was there a greater propensity there directly to target Pictish settlement in establishing "immigrant" homes? Neither Sævar Howe nor Buckquoy really provide secure enough dating or uncovered enough of the complex settlement mounds to be certain, but the sheer density of both Late Iron Age and Viking-Late Norse settlement presumably resulted because the area was a secular and ecclesiastical powerhouse. This density alone meant co-location was more likely. Perhaps Viking-Late Norse groups also resorted to cruder "this is our spot" building tactics because of Birsay's importance. The ambitious and their retinues also visited and needed accommodation here and this may well have helped create a distinctive settlement pattern. More generally the needs of those living on the Brough probably stimulated an earlier intensification

[30] The isolated burial returned a date of AD404-596 (TO-6693); while the "tenth-century" rib returned AD232-418 (TO-6695).

[31] These were Birsay, Westness (Rousay) (Kaland 1973), Skaill (Deerness) (not fully published); Jarlshof and Underhoull (Shetland); Freswick (Caithness) and the Udal and Drimore (Hebrides) (Ritchie 1977, 189). In 2003 Ritchie acknowledged that the by then greater understanding of Pictish buildings admitted rectangular as well as more curvilinear buildings into the wide range of much-modified post-broch Iron Age structures.

of production on the more fertile mainland. For example, on the basis of admittedly small and disturbed faunal assemblages there may have been an emphasis on cattle at Buckquoy and on sheep at Sævar Howe (Hedges 1983; Ritchie 1977).

One interesting aspect of Buckquoy as presently understood is the burials: the supposedly tenth-century pagan burial inserted into the mound, and the possibly Viking-Late Norse infant foundation burial in the longhouse. The former, if it is Viking-Late Norse, may be broadly contemporary with the South of Red Craig Viking-Late Norse burials into mounds and middens (see below) and possibly the Christian long-cist cemetery dug into Sævar Howe. The infant adds another aspect to the catalogue of special deposits made within Viking-Late Norse longhouses.

Excavation summary: Red Craig (no. 13)

Excavations at Red Craig, or Areas 3-5, of Morris's project, located about mid-way along the southern coast-edge of the Point, revealed structures possibly contemporary with Late Pictish settlement at Ritchie's Buckquoy (situated140m north-west), as well as with settlement on the Brough (Areas VII and IX). The first phase included semi-circular stone rooms followed by phases of abandonment and collapse, sealed by midden layers (1989, 143-174). No decidedly Late Pictish artefacts were discovered with the structures, except perhaps a gaming board; nor diagnostically Viking-Late Norse objects in the post-building layers, apart from a possibly Norwegian whetstone. However, the "Pictish" buildings were structurally similar to those at Buckquoy and a revised suite of radiocarbon dates suggested these were Late Pictish structures with Viking-Late Norse infill.[32] That infilling, as always, implied Viking-Late Norse settlement relatively nearby; in this case, as the infill/sealing layers were dominated by fuel ash slag and burnt material (e.g.161 and 285), the earlier buildings were being targeted to deposit the remains of hearth-related activities. Despite the difficulties with the dating (see

[32] There was – unsurprisingly – some acknowledged difficulty in separating contexts associated with the buildings from those with the infill and rubble: the original readings of the radiocarbon dates had suggested a mixture of Pictish and Viking-Late Norse dates for what was interpreted as the primary use of the rooms. It was suggested later that infill layers had been misinterpreted as primary use ones (1989, 284) and the dates assigned as follows: Pictish AD600-910 (GU-1959) and (GU-1958); infill date Viking-Late Norse AD875-1055 (GU-1230).

fn.32) this could well be another settlement area developing as a mound – if was not one before – at least partly through the infilling of collapsed buildings with rubble and midden.

Excavation summary: South of Red Craig (nos 14-16)

For the purposes of this study the most compelling of the first phase of excavations undertaken by the *Birsay Bay Project* were those at Areas 1 and 2 or "South of Red Craig", 200m south-east of Red Craig and behind south-west-facing beach-cliffs just north of the present village limits. Area 1 was a focus for burial of two different phases: a first phase of long-cists under oval mounds (of which two were discovered), and a second one of cist graves and un-cisted inhumation into Viking-Late Norse midden which had accumulated over the earlier cemetery. Despite a lack of diagnostic Pictish items the first phase was probably Pictish, and the second Viking-Late Norse; the amount of loose disarticulated human skeletal remains found suggested many more burials than the few actually excavated had been disturbed by later activity and erosion. As Morris noted: 'a cemetery, in use over a considerable period, must have originally existed on the sites of both Area 1 and Area 2', with Area 1 closer to the centre of burial activity (1989, 277). There was a break between the two phases of burial in the areas excavated but it is impossible to know whether this reflects use across the entire cemetery: there may have been continuity of use in parts (as suggested for the cemetery at Westness [Rousay]).

These areas were therefore notable for a complex sequence of mound-related activity. Not only was, possibly early, Viking-Late Norse midden from settlement somewhere near layered over earlier cairns, but cist graves were then dug into the accumulated and *accumulating* midden. Six skeletons were excavated in Cutting 1 and Areas 1 and 2: three were of Late Iron Age date; three were Viking-Late Norse. Of the later burials in Area 1, one was dug into a cairn from the earlier phase, and another cist-grave was cut into a 'developing midden' such that the grave was enveloped in further midden build-up (Morris 1989, 291).[33] Secondary burial into settlement mounds, whether into midden-infilled

[33] **Late Iron Age** AD242-257, Cutting 1 (AN GU-1550); AD423-646, Cutting 1(AS TO-7047); AD548-668 Area 1 (IO TO-6696); **Viking-Late Norse** AD650-863, Area 2 (BJ TO-7048); AD 890-1026, Area 1(in the developing midden) (DT TO-6691); AD889-1157, Area 1 (over the cairn) (CU GU-1552): all calibrated for marine reservoir effect (MRE) where relevant: (Barrett et al. 2000, 6-7).

building remains or middens associated with the mounds, was not an unusual Viking-Late Norse practice; but the use of an "active" midden and the combined re-use of both burial *and* settlement mounds makes this a striking example, especially as Sævar Howe, Oxtro Broch and Buckquoy also provided evidence for Viking-Late Norse burial into earlier settlement mound deposits (Thäte 2007).

The middens were typical settlement-related accumulations of peat-ash and differently composed midden-type material with a shifting focus. The artefact assemblage included whetstones, a ringed-pin, Viking-Late Norse comb fragments and steatite. Area 2 was clearly closer to the source of the midden, and so probably to the settlement: a slight mound was recorded in the field to the north-east. This mound might be the linked Viking-Late Norse settlement site as higher magnetic susceptibility readings were recorded in this area by the BSLAP survey (Fig. 4.74).

Excavation Summary: St Magnus' church and the Bishop's Palace north of the Burn

The parish church lies north of the Burn, 150m north of the Beachview area. The present church is seventeenth-century and one of the possible sites for Earl Thorfinn's Christchurch (constructed c. AD1060; Lamb 1974). Small excavations against the walls of the standing church in 1982 found long-cist burials and that it was built over a twelfth-century stone church of distinction (Barber 1996, 10-31).

Even earlier archaeology was revealed within the broad mound on which the church sits. The earliest phases comprised: west of the church a mound of heat-shattered stone, peat-ash and cooking debris, into which a long-cist burial had been cut; and north of the church, midden-type material including peat-ash. Burials had also been cut into this material, one dated to the ninth-tenth centuries.[34] Again a complex, multi-period site encompassed both building into midden-type material and burial into such midden. There are parallels with the arrangement of buildings and landscape features at Tuquoy (Westray): at both places a major Viking-Late Norse site faces an early church site across a burn. The

[34] AD776-1022 (GU-1631) (Morris 1996, 292; Barrett et al. 2000 8-9): however this burial could not be corrected for the marine reservoir effect so may be earlier.

purported site of the Bishop's Palace at Birsay (no.18) remains unexplored just north of the Burn, between the church and Beachview, where the ground is reportedly full of stone. There is much more to be discovered within Birsay Village; only with further investigation will a more complete picture of Viking-Late Norse settlement and the history of the mounds in this area be established.

Excavation summary: Beachview (HY2470 2754; no.20)

South of the Burn of Boardhouse on the edge of the village of Birsay is an area of rough sandy grass-land, to the west of the house of Beachview (Fig. 4.77). Two raised areas are discernible: one under the modern building and another to the west. The Birsay Bay Project made three "Cuttings" into the southern, near-vertical banks of the Burn to investigate eroding deposits and features (Fig. 4.78);[35] two small area excavations followed above and behind Cutting 2 (HY2474 2757) and Cutting 3 (HY2477 2759), with a more extensive area excavation, Beachview "Studio" site, 40m south-west of Cutting 2. These investigations were sufficient to demonstrate that the height of ground south of the Burn, dropping so steeply to the stream, was archaeological, and that there were two major mounds encompassed within the mass of material. One 'a very large multi-period mound' to the south of Area 3 and another – perhaps even two – to the west (Morris 1996, 5-6). Marwick had identified this area with a lost name Tuftaback ON *topta-bakki* ('bank of the house sites') implying pre-Viking settlement remains, and/or re-use of earlier Viking-Norse structures and an existing mound (Marwick 1970, 3).

Fig. 4.77: Beachview outbuildings and the excavation site, looking north-west.

[35] Cutting 1 proved to be modern material (Morris 1996, 40); Cutting 2 revealed stone walls standing over a metre high infilled with rubble, suggesting a major possibly prehistoric structure, although there were no diagnostic finds (ibid. 40-43); and Cutting 3, midden-type material and possible structural elements (ibid. 45).

In Area 3, on the edge of the mound rising south to the modern house, a small, shallow, time-constrained excavation uncovered two layers of midden-type material and possible structural collapse; the upper midden contained steatite and returned a radiocarbon date of AD1020-1320 (Morris 1996, 45-49). Area 2 (8m by 4m) at its lowest level just revealed the top of a wall the excavators hypothesised might link to possibly prehistoric structures seen in Cutting 2. Above the walling were rich midden layers containing Viking-Late Norse artefacts and giving a radiocarbon date of AD1020-1280 (Morris 1996, 53-74). James Rackham noted that the midden here was 'not composed of a general or random build-up of occupation debris but relatively discrete assemblages' (ibid. 65). Clearly the evaluation trench had encountered the structured midden of a settlement mound.

Fig. 4.78: Boardhouse Burn: the "Cuttings" were made into the bank seen on the left.

The 'Studio' site confirmed this impression although even this nominally larger excavation only had time and resources to explore the upper layers of a small part of the huge mounded area. In fact much of the excavation area was 'simply uncovered at the highest levels' making interpretation and relating of phases inevitably challenging (ibid. 132; Fig. 4.79).[36] Areas F and G over the "main" building were barely dug and the structural sequence an acknowledged hypothesis (ibid. 132). Only within the eastern end of the building (Areas A-C: c. 2 by 4m) were deeper sequences explored in a slot partly defined by walls. As this was effectively an evaluation exercise, no later phases of building were removed to help clarify underlying archaeology. However, five structural phases of building were

[36] Lower layers were reached through a slot-type investigation at the east end of the building.

proposed which had been finally infilled and covered with midden. The purported main building, a sub-rectangular structure, was first modified by rebuilding the southern wall inside the previous one (Phase M); then a corn-drying kiln was added on the north-east corner.[37] The east end of the building, as revealed in the deeper trench, was infilled with midden-type material. Subsequently, as interpreted, the building was narrowed again before new buildings were apparently constructed over its west end (Phases X and Y).[38] Only two *in-situ* occupation layers were found: P (in the kiln) and L (the limit of excavation in the east end of the "longhouse"), and these were only broadly linked stratigraphically by later midden infill. The area outside and east of the main structure (Area D/E) was shaped by peat-ash, midden-type material and an enclosure wall. It must have been very difficult to be certain of the order of structural change and insertion. Without further excavation the main value of the work must lie in the revelation of the rich potential of the site and the environmental evidence, although analysis of those assemblages was also hampered by the lack of certainty in relative phasing.

An alternative structural hypothesis might be proposed. This would see even those upper layers as less straightforward than a sequence of later buildings over the remains of infilled structures. All the walls and building elements could belong to one longhouse with a complex history of remodelling, extension, rebuilding and infilling like the site at East Mound (Sandwick): a sequence too complex to be unravelled in limited excavation. The buildings in the west, comprising a bow-sided construction apparently built directly over another structure with a central drain, might represent the remodelling of a byre-end. Phases of this could be contemporary with elements to the east where the many constructional phases suggest remodelling and change of function.

[37] Rather crucially it is difficult to be certain that the insertion of this kiln did precede infill phases Q and R.
[38] It would be worth re-examining the excavation data to question the relationship between the "new" west end and structures to the east. Comparing Beachview plans to the sequence of modification, rebuilding and extension at East Mound (Sandwick) suggests Beachview could also be a longhouse, with the core of the earlier building delineated by the lower wall alignments in the west. Eastern structural modifications, including the corn-drying kiln, could be *later* additions.

The dating is inevitably broad-brush: the external area (Area D/E) could not be linked robustly to internal building phases in Areas A-C:[39] the phasing was a 'tentative correlation' to produce a 'working model' (ibid. 156). The external area (D/E) produced four dates, broadly from the eleventh-thirteenth centuries, while four dates from the midden levelling-up (R and S)[40] were in a similar range, but weighted more towards twelfth century and, not surprisingly as these are building infill, the trend of the dates did not correlate with the midden stratigraphy. The only two phases within the building interpreted as occupation layers (L and P) could not be radiocarbon dated. The two dates from the final midden layer supposedly across the whole site, are more akin to the dates from external areas D and E.

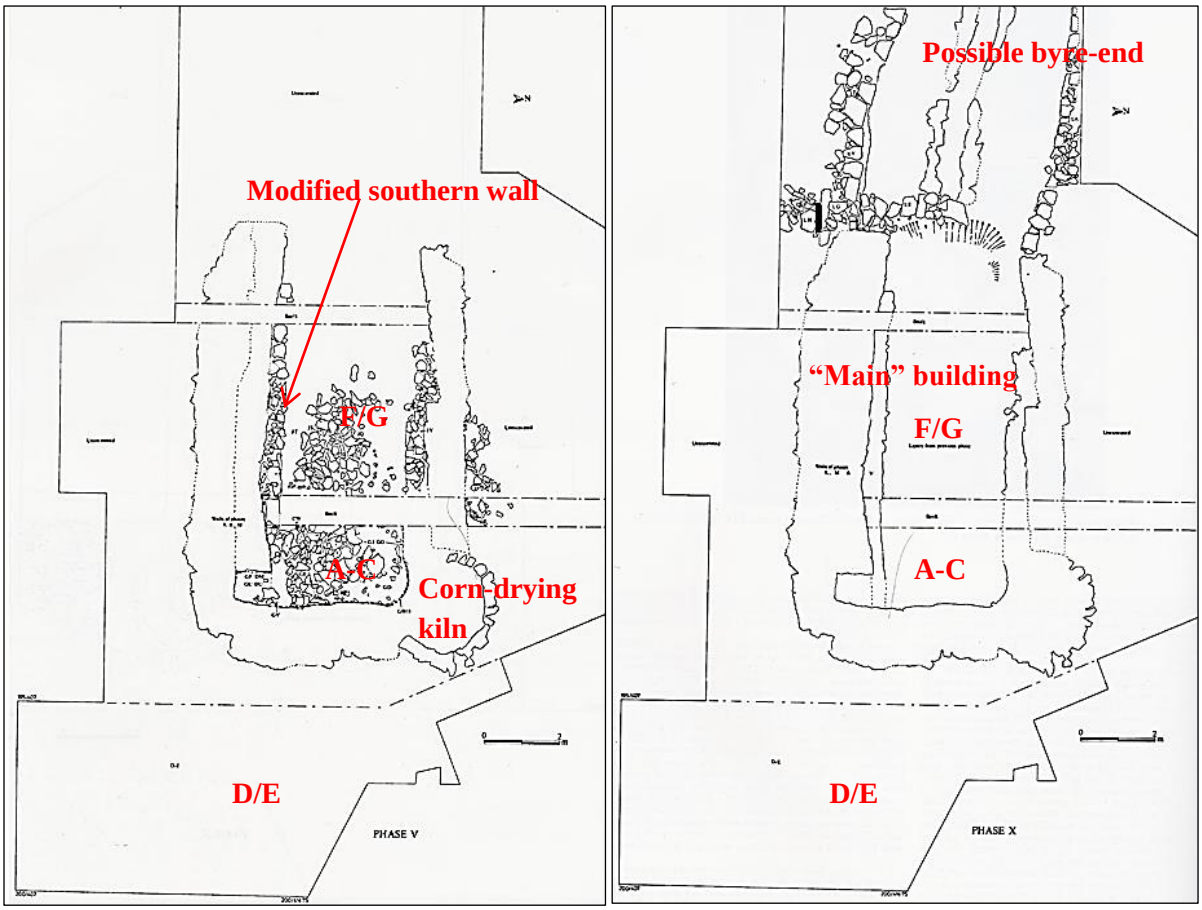


Fig. 4.79: the left-hand plan shows Phase V, the right hand Phase X, after Morris 1996, 120 and 124.

The finds came mostly from the midden infill layers R and S and final midden layer Y. Colleen Batey noted: '[M]uch of the material [in R and S] could well have been imported' (ibid. 156); the battered

[39] The excavation report is quite confusing with lots of letters used for phases and areas of excavation: different phases seem to use the same letters in two areas (Morris 1996, 160). The author admits to struggling with the excavators' honest attempts to lay out the problems and discuss the possibilities. The phase diagram on p. 102 is almost incomprehensible without weeks of study alongside the microfiche, but the problems are noted.
[40] Three come from midden S, which was the most productive of carbonised grain (ibid. 156).

condition of artefacts and the distribution of fragmentary artefacts across phases in the levelling midden also suggested 'infilling from a surface nearby' (ibid. 145). The description of both the layers and the artefacts would certainly suggest relatively rapid levelling-up of the east end of the building (and probably the rest) with material collected elsewhere, supplemented with occasional deposits straight into the area. The diagnostic artefacts fit with a broadly eleventh to twelfth-century date-range but the nature of the deposits does not allow for finer chronological distinction.[41]

Mound-related building techniques used at Beachview: see Table 4.06

Conclusion

Reviewing the excavation record around Birsay Bay has discovered at least five multi-period mounds in a relatively small area: certainly at Beachview, Buckquoy and Sævar Howe, probably at Knowe of Buckquoy and South of Red Craig, as well as possibly at mound 9a on the Point and at site 10 to the east. Of these the most fully excavated after Buckquoy is Sævar Howe, which is the final site to be analysed anew as a settlement mound.

Excavations at Sævar Howe (HY2460 2700; no. 25): Farrer 1862 and 1868; Hedges 1983

Sævar Howe is a large, very eroded, cattle-trampled, amorphous mound with many sand blow-outs, over 50m in diameter and around 3m high (Fig. 4.80). It sits on the Birsay Links in the south-east angle of the southern of Birsay's bays, looking across to the Brough. One of the most tantalising of Orkney's investigated Viking-Late Norse sites, it has an unfortunate excavation history. Farrer's 'far from meticulous' 1860's excavations – applying the methods of the time to an extremely complex mound settlement [42] – were followed in 1977 by one season of trial excavation by John Hedges (1983, 74). Hedges concluded the whole mound was 'built up of superimposed occupation and sand blows'

[41] Colleen Batey also pointed to clay layers within the midden deposits that might have acted as caps over 'noxious' areas (147) and highlighted finds-rich sandy lenses. Considering this former phenomenon, sand might also have been thrown over areas of midden to make them easier to walk or work on, to diminish dampness as well as smells.

[42] Farrer was defeated in a second attempt at excavating Sævar Howe by an intimidating overburden of sand (Farrer 1868).

(1983, 77). However, he was unable to return to complete the work planned and made the best of publishing what had been discovered in a 1983 article.

Fig. 4.80: Sævar Howe looking west.

Excavation summary

Farrer's excavations on the mound summit reported a probably Pictish long-cist cemetery of around 11 burials dug into sand, with at a little distance three short-cist burials inserted over the remains of considerable stone structures (1862). Within the occupation layers Farrer found a bell, identified as typically 'Celtic', which Hedges later described as a 'special deposition within a quasi-cist' (1983, 108). Hedges' subsequent work undoubtedly advanced understanding of the mound. The remains he uncovered were interpreted as belonging to two broad phases: the first of fragmentary and barely excavated Pictish occupation levels, and the second comprising three superimposed but distinct Viking-Late Norse "hall buildings". By comparing Farrer's report with the later results, the long-cist cemetery was determined 'on balance' to have been *later* than the abandoned Viking Late-Norse buildings, while the short cist-burials were more difficult to place in the revised sequence. The bell, Hedges suggested, had been excavated from within Pictish phases of the mound (ibid. 116 and121). All archaeology in sand mounds faces the challenges of sand deflation and movement, with the concomitant problems of reverse stratigraphy and conflated phases. Interpretations must be offered in

the knowledge that the main focus of activity may also have migrated across the mound over time, or been lost to erosion. Hedges faced additional problems and there were many reasons, set out clearly in the report, why the phasing and stratigraphical relationships were even less certain than usual for a settlement mound excavation. The excavation progressed through four small, closely-set trenches: two were 8m by 6m, two more 2m by 2m, with baulks maintained between them (Fig. 4.81). There were large rabbit warrens, and nearly half of the area investigated coincided with Farrer's work.[43] As a result undisturbed deposits were explored in 'seven islands which *could not be stratigraphically connected*', and phasing was achieved between the "islands" and trenches by 'equating levels' and 'likely' combinations of features (my italics, ibid. 77). Looking at the available plans and knowing "equivalent" levels can be very misleading in the environment of a sand mound, different interpretations could be proposed of the generally fragmentary structures revealed.

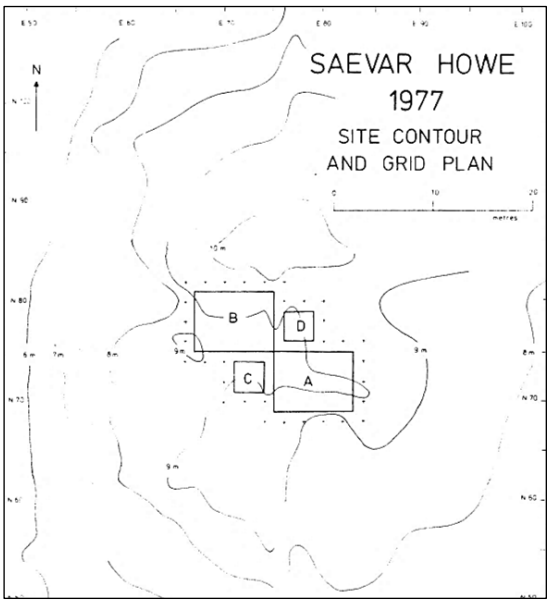


Fig 4.81: Hedge's trenches (poor original image), from Hedges 1983, 75.

The distinctness of the three proposed site phases is perhaps not entirely secure. The transitions between Viking-Late Norse Phases 2a-2b and 2b-2c are reported as separated by sand blows; but it would be instructive to go back and study the original sections to clarify this explanation.[44] The three

[43] Farrer's excavation of the occupation layers seems to have proceeded by following walls and clearing out areas between standing remains with no regard for stratigraphy: what Hedges called 'primitive methods' (1983 73).

[44] Sand blows are reported between Phase 1 layers but these – unlike those in Phase 2 – are interpreted as *not* indicating a break in occupation.

"separate" hall-houses within these Phases as described by Hedges look more like the sequential rebuilding and modification of *one* building: the sort of constructional sequence now familiar to excavators of settlement mounds. There may have been periods of local abandonment in the excavated areas, but rebuilding occurred on the same footprint – 'on the same site' – and reused not only stretches of walling but also internal features (ibid. 78). The same small orthostats form elements of internal furniture in Phases 2b and 2c; two caches of loom weights were found, one in Phase 2a and one in Phase 2b in exactly the same location in supposedly separate buildings (Fig. 4.82). The dating is not terribly secure, provided by two stratigraphically questionable radiocarbon dates [45] and a coin. The dates from Phases 2 and 2b are not statistically different and suggested the building was in use as early as the later-seventh century.[46] The silver penny of Burgred of Mercia from Phase 2 was minted in AD866-868. Nothing in the relatively small assemblage of stratified finds contradicts the broadly ninth- to early-tenth-century date suggested for the Viking-Late Norse occupation uncovered in those later phases. The long-cist cemetery was therefore tenth-century at the earliest.

Discussion

This mound provided additional evidence for the density of settlement along the Birsay bays, in particular of Pictish and earlier Viking-Late Norse settlement. Sævar Howe is in fact probably a major *multi*-phase settlement mound as a great proportion remains uninvestigated and the archaeology may have begun much earlier. Furthermore, as only a small part of the summit was excavated, other phases and areas of Viking-Late Norse activity might still survive the considerable disturbance and erosion suffered by the mound. Even the "hall-houses," that Hedges suggested were 11-12m long – relying on structural typologies then current [47]– could be considerably longer in one or more of the phases. There were many hints in the excavation of other buildings close by.

[45] A third appears to have been taken from a mixed faunal assemblage including shell and cannot be reliable; the dates were taken from the most secure deposits possible but 'the stratigraphy was more uncertain than would be desirable' (1983, 85).
[46] The date from Phase 2a was taken on spruce, which was presumably driftwood (or an import) and calibrated as AD637-793. The date for 2b was on willow charcoal – a short-lived and native tree – and gave a date of AD670-850 (no lab references provided). Both dates are early for Viking-Late Norse occupation.
[47] See Ritchie 1977, 189: Scottish longhouses were divided into two groups on size: 15m by 5-6m and 10.5m by 4-4.5m. The Skaill (Sandwick) East Mound longhouse is over 26m long.

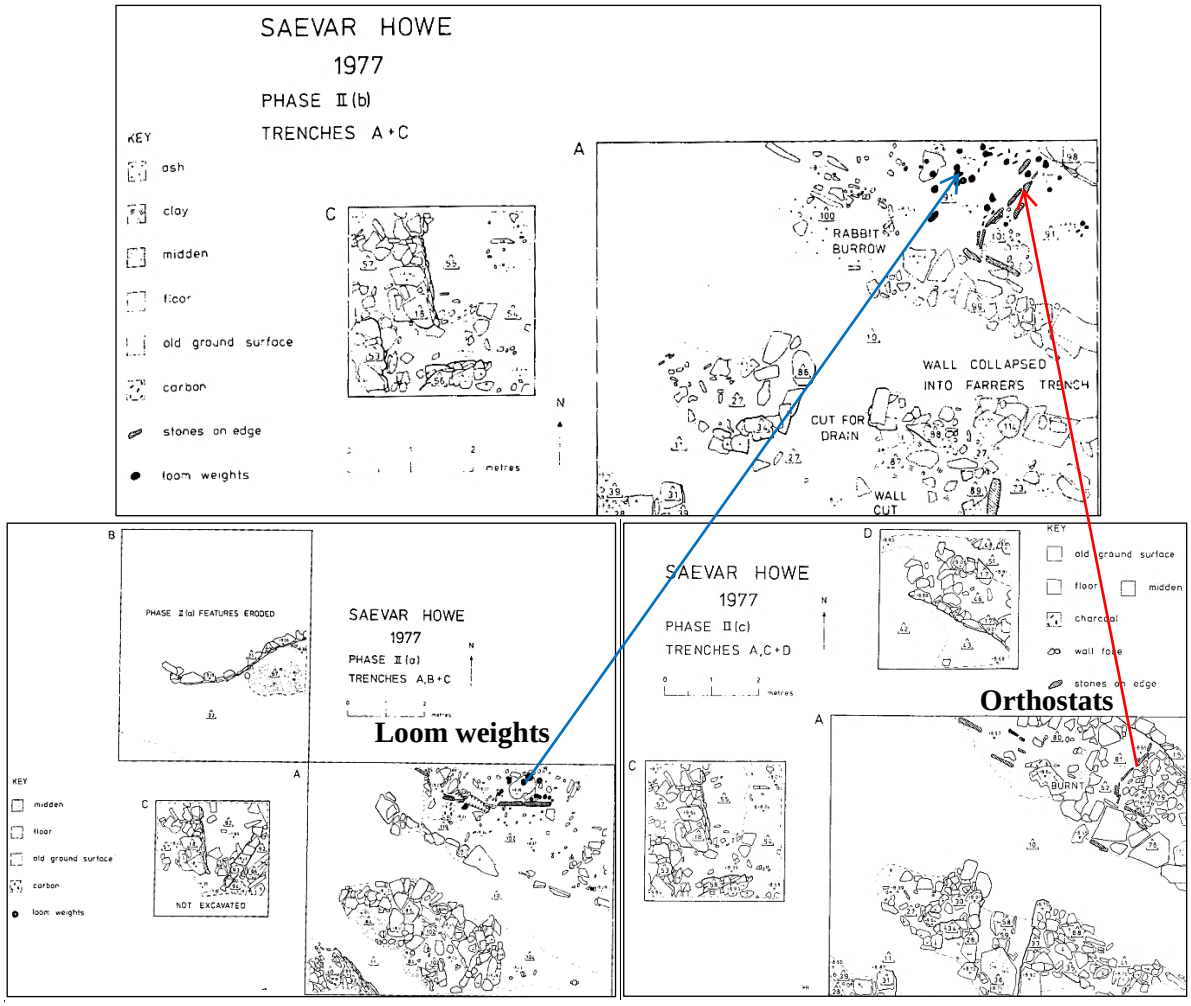


Fig. 4.82: Phases 2b top, 2a left and 2c right: Sævar Howe. The arrows show the artefactual and feature links between "separate" buildings (Hedges 1983, 81 and 83-4).

But the report also evidences increasingly familiar mound-related constructional techniques (Table 4.06). The Viking-Late Norse structures were built over collapsed, partially-covered and infilled earlier buildings; the possibly Pictish (or later) walls dug down into sand and midden.[48] The infilling of Phase 1 buildings noted by Hedges was likely deliberate and more typically Viking-Late Norse. All the undisturbed floors described for Phase 2 were midden-enriched sand. In Phase 2a one of the trenches revealed a midden layer with a containing wall (see Pool [Sanday]). In the "middle Viking-Late Norse phase" (2b) the layout of the house becomes clear, although the structural remains from Phase 2a appear too disturbed properly to judge the relationship between Phase 2a and Phase 2b walls and whether any stretches were re-used. However, the alignment is the same and the loom weights appear in the same location. In Phase 2b the eastern portion of the building had a flagged central path,

[48] For example at Howe (Hedges and Bell 1980; Ballin Smith 1994).

chock-stones for a partition and, west of the partition, the loom weights and an unenclosed hearth area. To the south the walled yard was floored with clay. In Phase 2c, interpreted as a 'reoccupation of upstanding fragments' (Graham-Campbell and Batey 1993, 168), the northern wall was rebuilt over and alongside the previous one, while the excavated length of southern wall re-used the Phase 2b wall. Subsequently, the entrance in that wall was enlarged to incorporate a flagged drain (almost identical to the southern entrance at East Mound [Sandwick]). Internal orthostats from Phase 1b were reused (see Fig. 4.82). The entrance was blocked in further modifications and the structure was eventually infilled with midden, indicating activity continuing elsewhere on the mound.[49] Only the insertion of a Viking-Late Norse cemetery into the upper levels of the mound makes Sævar Howe seem different from Pool (Sanday) or Skaill (Sandwick).

Summary: the Birsay Bay settlement pattern

The density of Viking-Late Norse settlement around Birsay Bay is remarkable (Fig. 4.83): Sævar Howe; Beachview; Buckquoy; South of Red Craig and the Brough (with the possibility of more at site 9a, on the neck of the Point at site 10, at the Knowe of Buckquoy, and unlocated structures linked to the Langskaill name, near site 21).The first three are major settlement mounds. Without better dating it is impossible to be certain which were occupied at the same time, especially as many elements of the excavated settlements are probably missing. People were clearly drawn to a major power centre supported by excellent agricultural resources. Driven by the demands of frequently-resident earls and bishops, settlements in Birsay may have begun to specialise earlier than elsewhere, to include provider farms, accommodation for entourages and metal-working on the Brough.

Setting aside the remarkable density of sites, two other characteristics stand out when considering the settlement mounds: all the excavated sites have Viking-Late Norse *and* immediately preceding settlement phases, and many incorporate Viking-Late Norse and earlier burials. Apart possibly from Beachview, where the association is not proven but probable, and the site(s) at the very tip of the Point

[49] Unfortunately it is difficult to tell without returning to the original archive whether any diagnostic finds came from this midden L12.

(nos 6 and 12) where the Viking-Late Norse evidence is very slight, Viking-Late Norse settlement and activity *was* more directly related to the preceding settlement pattern, whether that settlement was still viable or after a hiatus in use. The site at Red Craig had closely situated Pictish and Viking-Late Norse buildings, and South of Red Craig was probably the same. There is however no known coastal broch (although the possibility that the Beachview site might encompass one); Oxtro broch (no. 22) lies by the Loch of Boardhouse (and was probably re-used for Viking-Late Norse burial). The Brough itself is slightly different: although Viking-Late Norse settlement is sited right into and over Pictish structures, the till geology and apparent relative lack of midden-type material meant a typical mound landscape was not created.

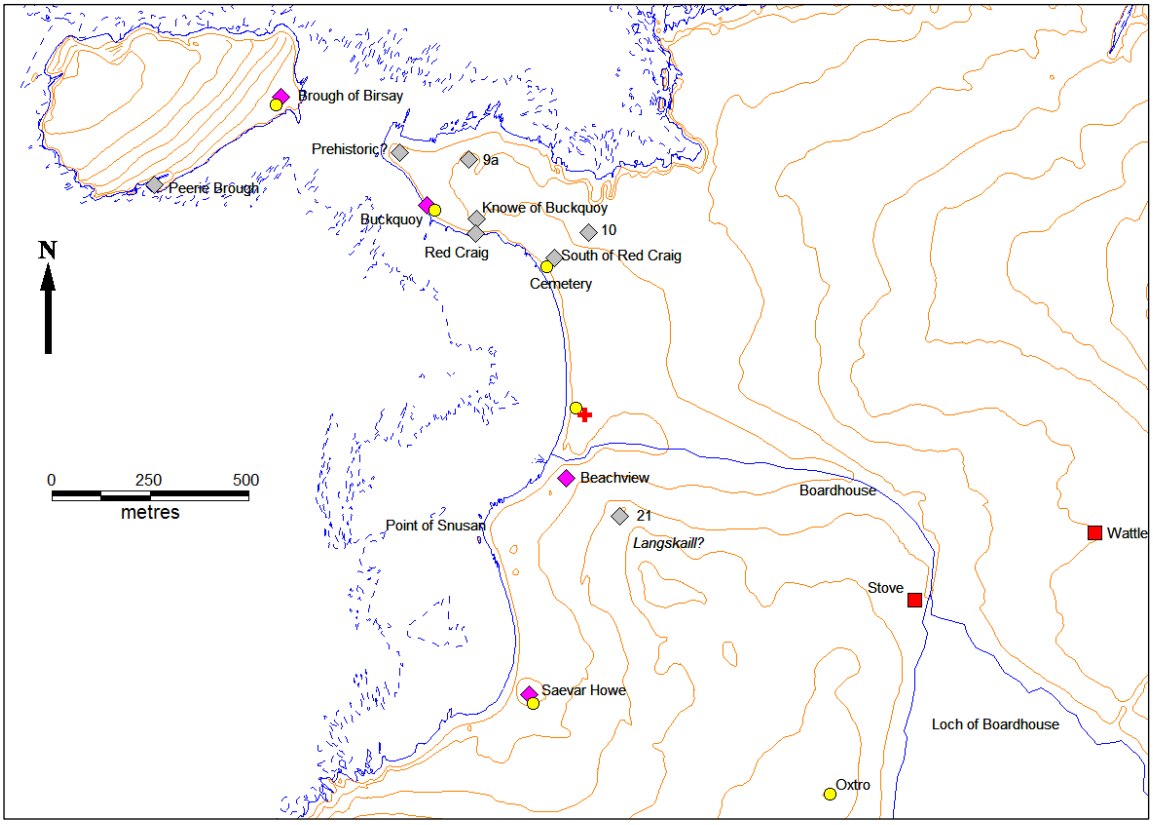


Fig 4.83: Birsay Bay settlement pattern hypothesis: pink diamonds, definite multi-period settlement with Viking-Late Norse phases; grey diamonds, possible multi-period settlement; yellow circles, Viking-Late Norse burials.

The use of abandoned buildings, or midden and/or earlier cairn mounds for burial is even more striking. At Buckquoy and Sævar Howe Viking-Late Norse burials were made into abandoned buildings. South of Red Craig burials were made into accumulating midden, over burial and probable settlement mound deposits. To these three sites could be added a possible ninth-century cist burial into

midden by St Magnus' Church, and the burial at Oxtro broch. (The dates of these burials at the church, Sævar Howe, South of Red Craig and Buckquoy raise the possibility of an overlap in "pagan" – with grave goods – and "Christian" burial practices.) The reuse of mounds for interment seems especially prevalent around Birsay Bay, although the concentration of archaeological investigations may have skewed the record. This was perhaps another response to the central importance of the area: not only were earlier structures ostentatiously incorporated, but also abandoned buildings and mounds were possessed through their re-use for burial.

Chapter Five (1): archaeological mounds in Deerness

East Mainland has often been compared to West Mainland, because of its sandy bay, occupied sea-stack and Viking-Late Norse settlement at Skaill. This chapter looks at the distribution of archaeological mounds on East Deerness in their landscape context. As before mounds have where possible been categorised by period and type and examined in relation to topography, coastline and drift geology, as well as each other, any skaill place-names and chapels. The excavated Viking-Late Norse sites of Skaill and Newark have been examined as settlement mounds along with a brief consideration of the archaeology of the Brough of Deerness.

Fig 5.01: looking south-east at Dingieshowe.

Introduction

Deerness is the furthest east of the parishes of Mainland and occupies an arrow-shaped peninsula 7.5km south-west to north-east and 6km north-west to south-east, joined by a narrow isthmus of land, not much more than 100m wide, to the rest of the island. That ayre or neck of land is formed by dunes and links overlooked at western end by the large sandy, mound of Dingieshowe ON *ting-haugr* (‘thing’ ‘mound’) (HY5476 0330). Nineteenth-century excavations demonstrated this was a broch but the name suggests the mound covering the structural remains was subsequently part of a Viking-Late Norse assembly site (MacKie 2002, 248; Sanmark 2013).[1] Three significant excavations undertaken on Deerness have discovered Viking-Late Norse archaeology: that of the multi-period settlement area

[1] Alex Sanmark argues that Thing-sites in Shetland, like Dingieshowe in Orkney, were often located on isthmuses: liminal and visible sites from which to control movement. Furthermore they often reused the sites of older structures (2013).

around and beneath the modern farm of Skaill on the east coast in Sandside Bay (no. 1; Buteux 1997); an erosion-driven investigation of the early chapel and burials on Newark Bay (no. 4; Brothwell 1977); and recent investigations on the Brough of Deerness, a 30m high sea-stack, expanding on earlier work on the Brough chapel by Christopher Morris (no. 3; Barrett 2008, 2009; Morris and Emery 1986). The landscape of Deerness is generally more open and gently sloping than parts of West Mainland, but both Sandside and Newark Bays have windblown sand beaches and links similar to Birsay Bay and the Bay of Skaill.

Deerness appears in *Orkneyinga saga*. The first reference records that Amundi farmed 'on Mainland in Sandwick at *Hlaupandanes*', with his son Thorkel who later earned the nickname Fosterer for his care of Earl Thorfinn the Mighty (Pálsson and Edwards 1978 ch. 14, 39). Although some have suggested the Sandwick referred to is at the Bay of Skaill, the weight of opinion at this time places this influential family on Deerness.[2] Reviewing the evidence, much of that ballast is provided by statement rather than argument and *Hlaupandanes* could be placed in West Mainland. Chapter 16 of *Orkneyinga saga* does tie Sandwick, whether in East or West Mainland, with the machinations of powerful men, and Thorkel's dramatic murder of Thorfinn's rival Earl Einar in his 'great hall' in Sandwick (ibid. 42-3). A sea-battle was fought off the coast of Deerness between Thorfinn and the 'King of the Scots' and is described in a passage that appears most firmly to locate Thorkel's Sandwick in Deerness (ibid. ch. 20). The combination of saga references to power-wielding earldom characters, with striking Viking-

[2] '… i Hrossey i Sandvik a Hlaupandanes... ' The confidence with which *Hlaupandanes* is placed in East Mainland is however hard to recreate. In1930-31 A. B. Taylor noted the problems of place-name analysis in Deerness were compounded by the lack of coverage of the area in the earliest 1495 *Rentals*. Nonetheless he states that as *Hlaupandanes* was the principal house in Sandwick 'it cannot have been anything other' than the low headland on which stand Skaill farm and the church (1930-1, 42). He acknowledges the name presents a problem as the "low headland" is no 'leaping ness' ON *hlaupa-ness* ('leap' 'headland') and prefers to interpret it using *hlaupandi* (genitive singular) ('land-louper'), someone fleeing to alien territory. Hugh Marwick also asserted the Sandwick referred to was in the then eponymous Deerness tunship and that 'it can scarcely be doubted' that *Hlaupandanes* was a site at or near the farm buildings of Skaill (1952, 77-8). He argues away the lack of a leaping ness by drawing attention to a (not very dramatic) ness of rocks just visible running out from Skaill that may once have been more striking. Sandwick on West Mainland, however, has a very impressive "leaping ness" as anyone will know who has watched storm-driven waves leap through and over the 30m high arch of the Hole o' Row on the bay's southern headland. Marwick himself unintentionally adds more weight to the case for *Hlaupandanes* being in the west in his discussion of Sandwick (West Mainland). Despite there being no record for Sandwick being the *original* tunship name there he considered it 'more than likely' that was the case (1952, 147). He concludes that, as in Deerness, the early tunship name was *sand-vík* and embraced all the land around the sandy bay (ibid. 154). Thorkel was Thorfinn's staunchest supporter: might he not have been based nearer to Birsay?

Late Norse settlement, sandy bays and a dramatic Brough/sea-stack inevitably meant parallels have been drawn between the east coast of Deerness and the north-west coast of Mainland (Buteux 1997, Morris and Emery 1986). Both coasts also overlook a major sea-road: in the case of eastern Deerness into the heart of the Northern Isles and onwards to Shetland and Norway. What follows will concentrate on the east and south-east of the peninsula, and Sandside and Newark Bays, to explore that comparison, and argue that there are important differences as well as similarities, underlining the variety and local distinctiveness of mound settlement.

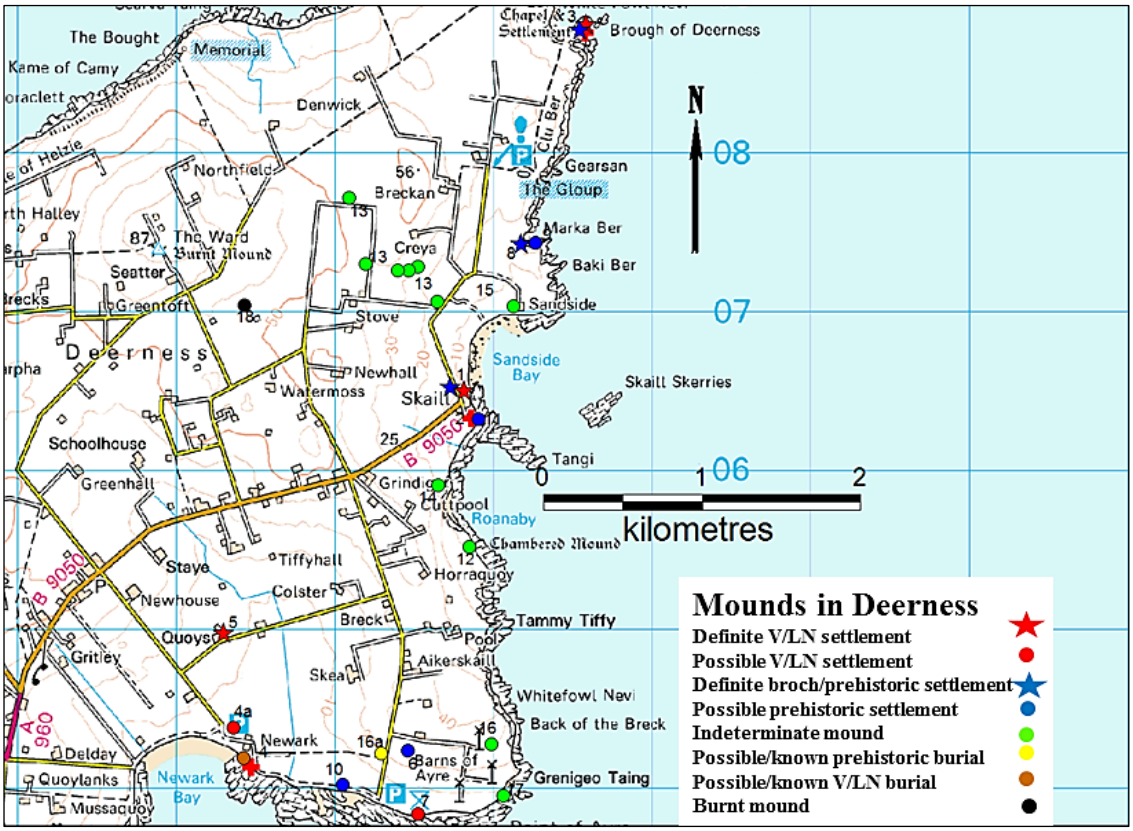


Fig. 5.02: archaeological mound in the eastern part of Deerness.

Geology and Topography

The underlying geology of Deerness is either Lower Eday Sandstone or the more varied Eday Flagstone Formation. The drift geology over these is overwhelmingly glacial till, developed from the mudstone to sandstone parent rocks, and producing soils with varied clay-silt-sand content. However, this has often resulted in indurated/compacted sub-soils and thus poorly drained land. So before extensive land drainage in the nineteenth century, sandy free-draining soils were at a premium

(Limbrey 1997, 9). There are two areas of these lighter soils on the extensive windblown sands of Sandside and Newark Bays (Fig. 5.03). Generally, the Deerness landscape is open, shaped by rounded hills, with peat found in the higher ground around The Ward in the north-centre at 87mOD and Esnaphy Hill in the south, rising to 62mOD. The higher and sheer coastal-cliffs in the north-east are marked by deep geos and sea-stacks, including the Brough of Deerness, and culminate in Mull Head at 48mOD. The west coast (not studied here), and the central east and southern coasts are less precipitous: the south-eastern Point of Ayre is craggy but drops down relatively gently to the north and east towards the windblown sand bays. These two bays therefore provided Viking-Late Norse farmers with the necessary range of landscape resources from peat to light soils. Sandside and Newark Bays are mainly sand beaches, with the classic wave-cut platforms reaching out on each arm of the bay and changing storm beaches of gravel, cobbles and boulders.

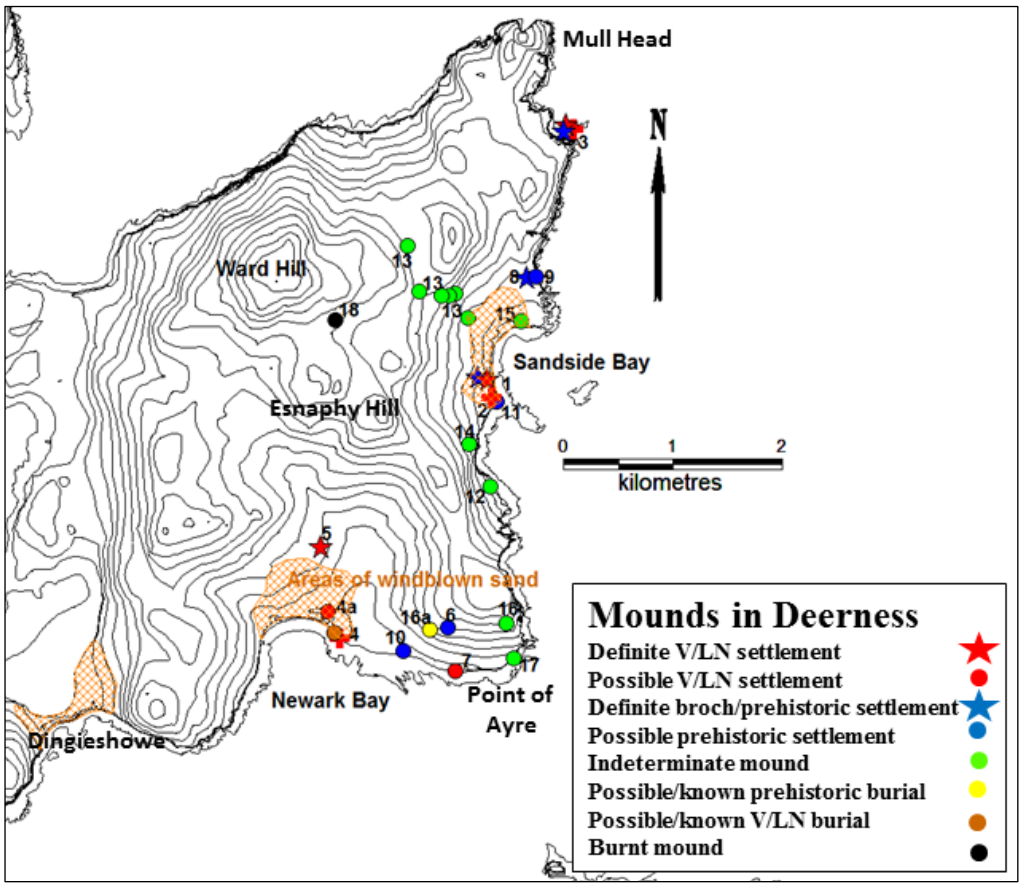


Fig. 5.03: Topography and drift geology of east Deerness.

Distribution of Mounds and Settlement in East Deerness: Table 5.01; Fig. 5.04

Areas of Investigation

The distribution broadly follows the pattern already established for north-west Mainland: burnt mounds and possible burial mounds on the higher or damper ground; brochs in prominent coastal, often headland, locations (there being no inland lochs, another favoured broch-site), and most Viking-Late Norse settlement on sandy bay-arms (nos 1 and 4). However, there are also known Viking-Late Norse sites on a sea-stack (no. 3) and in a higher, inland location (no. 5). Investigation of the archaeology will be divided into two areas: Newark Bay and the Point of Ayre; and the area around Sandside Bay, including a discussion of the Viking-Late Norse site at the Brough of Deerness a kilometre or so up the coast.

Area 1: Newark Bay and the Point of Ayre: Fig. 5.04

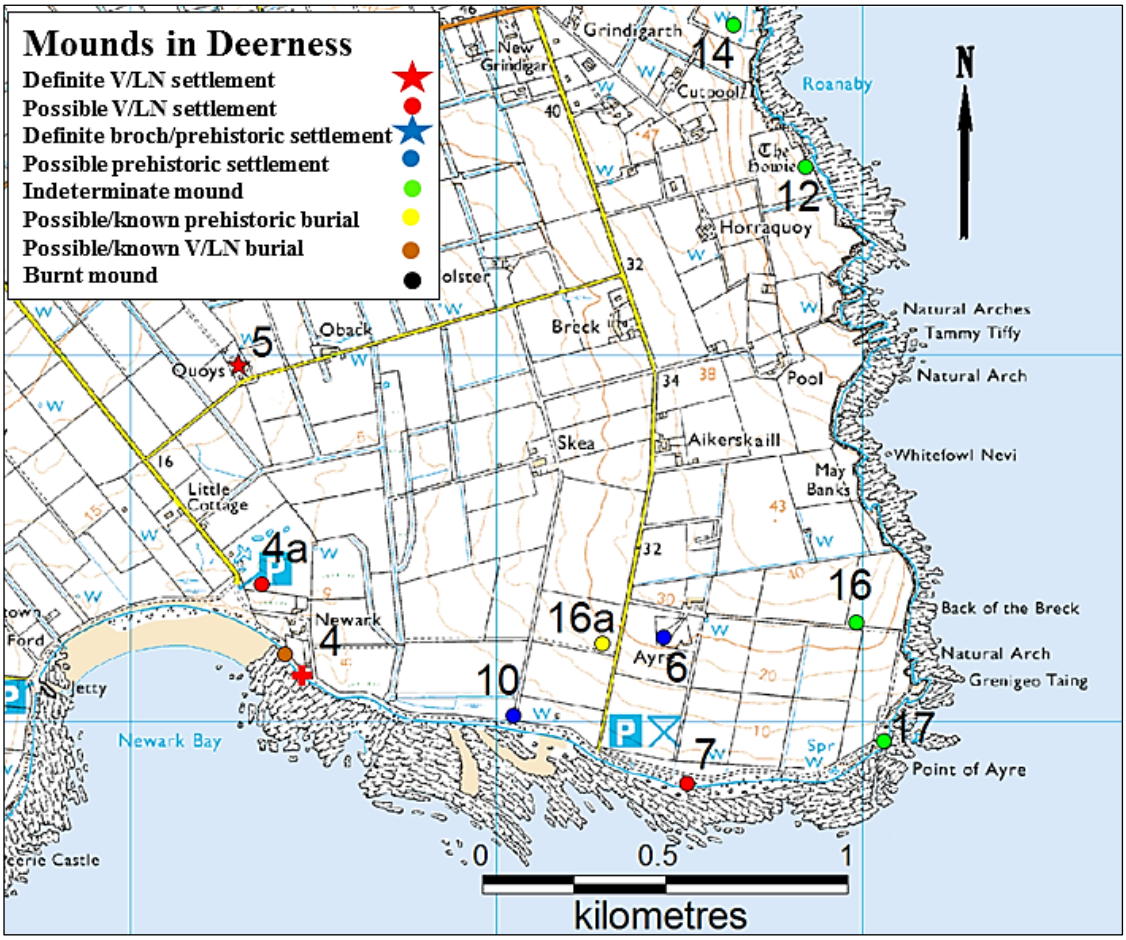


Fig. 5.04: archaeological mounds on Newark Bay and the Point of Ayre. Mounds 12 and 14 are covered in Area 2.

This is an area that would repay further work in researching Viking-Late Norse settlement as it encompasses a potentially diverse range of sites; it is also less easy to discern any familiar pattern in the location of the mounds around Newark Bay. There, only two sites have had other than very minor excavation and both are Viking-Late Norse period: the Quoys (no. 5) and Newark (no. 4). Newark Bay is a classic sandy bay, while the Point of Ayre is a blunt headland to the east rising gently to 43mOD not far behind the east coast. Just 350m north-west of the highest point, and running along a slight ridge, is the farm of Aikerskaill ON *akra skáli* ('cultivated fields' 'hall'). The modern farm sits on a spread but obvious mound and commands sweeping views across the sea (Fig. 5.05). The farm is also very prominent from the Quoys to the west and inter-visible with Newark (no. 4). The southern coast is open and well-cultivated, dropping to a low, eroding beach-cliff. Although there have been no archaeological finds in the near vicinity of Aikerskaill, 500m to the south preparation for building work at Ayre farm uncovered midden-type material and an orthostatic feature within a wide diffuse mound (no. 6).[3] The same distance east of the farm Kenneth Steedman noted a broad shapeless mound 100m from the coast-edge: perhaps ' an old settlement site' (no. 16; 1980). On the point of the headland 300m to the south a possible cist burial was disturbed during ploughing on a rise overlooking the sea (no. 17). Finally, there are two sites eroding out of the low southern beach-cliff: mound-site 10 has been designated a possible broch on the basis of curved walling discovered in a small trench; site 7 encompasses potential Viking-Late Norse structures and an erosion section over 20m long. The midden included medieval-date hand-made pottery and was associated with stretches of walling and paved floors; in the rough grass above the east of the section were the foundations of two small sub-rectangular buildings with lengths of coursed walling visible.

[3] The pottery discovered in the small intervention was described as probably Pictish.

Fig. 5.05: The farm of Aikerskaill looking south-east, showing the settlement mound and its commanding views.

Newark Bay itself is open and rather formless with two slight valleys rising north-east and north-west to about 25mOD. Quoys (no. 5) sits on the western slope of the eastern valley on a slight ridge with good views to the east and south but on no discernible mound. When a nineteenth-century cottage was demolished at Quoys an earlier, well-constructed wall was discovered below its dismantled north wall. Under the cottage floor were two earlier floors within a thick midden-rich layer. Several distinctively Viking-Late Norse objects were found and later finds around the cottage included a folded lead strip with incised runes (Table 5.01). This is, therefore, the only place in Orkney that hints at the structures that might very well lie beneath many smaller, still-active farms, often with *quoy*-names.[4] These farms, as already noted for north-west Mainland, characteristically occupy the slightly higher bay-rim locations to which settlement often moved, probably around the twelfth century.

Newark Bay: settlement mound, chapel and cemetery, nos 4 and 4a

The large farm at Newark stands on a broad, low much disturbed mound up to 100m in diameter (Fig. 5.06). About 50m to the south-west of the farm, on the low beach-cliff, a long erosion section runs over 100m east in which have been exposed 'complex settlement remains' (Lamb 1987, 32), and the graveyard of a medieval chapel – the foundations of which are still visible in the rough grass above the

[4] ON *kví* ('animal enclosure'): often for folding stock at night.

section (Fig. 5.07; no. 4). A later sixteenth to seventeenth-century house was also built on the chapel site. Burials, middens and structural elements continue to erode out of the coastal section

Rescue excavations there, run by Don Brothwell between 1969 and 1972, recovered the skeletal remains of about 250 adults and children. The burials were unaccompanied and aligned roughly west-east; the chapel was also investigated. Two underground passages, or curved chambers, were discovered beneath the cemetery, suggesting earlier settlement (Brothwell 1977).[5] Two coins were found in the chapel floor of Anlaf Sihtricsson (AD941-44) and Eadred (AD946-55) (ibid. 1977, 182; Molleson 2005, 20 and 111): a coin of Eadgar (AD959-75) was unearthed in the levelling layer beneath the stone chapel floor on the Brough of Deerness. Although three coins do not make a tradition, perhaps preparation for building a new chapel in the late-tenth century included burying a coin "foundation deposit". The coins suggest the chapel at Newark was in use, at the earliest, from the mid-tenth century.

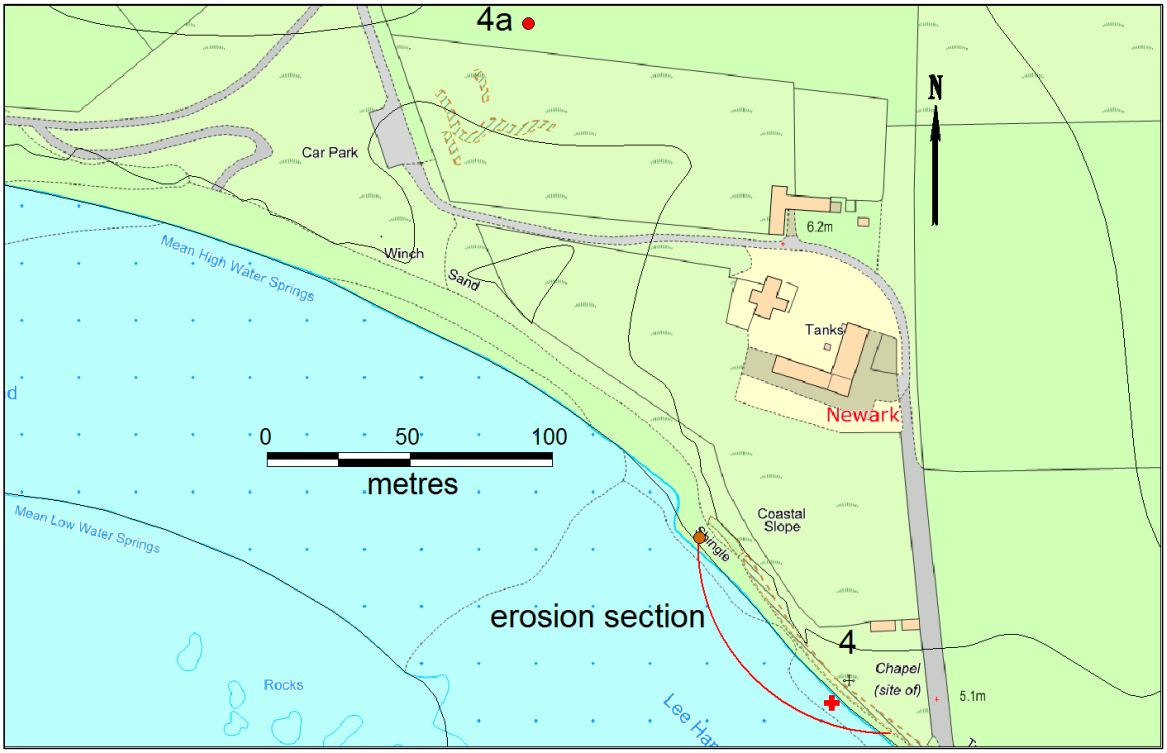


Fig. 5.06: the location of the chapel remains (red cross) and the long erosion section across the large mound under Newark farm and a now demolished sixteenth- to seventeenth-century house.

[5] These structures were discussed by Brothwell in his 1977 article but the remainder of the excavation has not been published in full.

The cemetery was in use for hundreds of years,[6] possibly beginning in the Late Iron Age/Pictish period, as at Westness (Rousay), perhaps contemporary with earlier settlement traces, and continuing beyond the Viking-Late Norse period. The Pictish burials may have been more isolated cairn interments marking the site for continuing use. However, the vast majority of the radiocarbon date ranges clustered in the tenth to early-thirteenth centuries, probably indicating the main period of use of the small chapel (Ashmore 2003).[7]

Apart from the chapel and the possibility that structural features seen in the section included Viking-Late Norse phases, no definite settlement of that period has been identified within the Newark mound. However, about 150m to the north-west on the flanks of another large, spread mound a 'hole dug in the dunes' in 2000 revealed a stone structure surviving in places up to a metre high, with associated floor levels visible (no. 4a). No other details are available but the record interprets the find as a possible Viking-Late Norse building (Table 5.01).

Newark farm was and is an important settlement location. Settlement remains from prehistory through to the post-medieval period have been identified in the vicinity, although only tentatively and without the benefit of full publication of the coastal rescue excavations. The presence of the relatively early chapel suggests that there was probably a contemporary residence for a local lord: the location is certainly appropriate.

[6] The earliest radiocarbon dates on a Newark burial were calibrated in the range AD551-670 (TO-7176) and AD616-685 (TO-7180) (Ashmore 2003, 46-47; Barrett et al. 2000a, 6-8); but the majority of the 20 dates were from the ninth to thirteenth centuries, with a bias towards the tenth century and later, with a further two reaching into the late-fourteenth century (Ashmore 2003, 46-50; Barrett et al. 2000a, 6-8).

[7] Theya Molleson studied the skeletal remains (2005) from Newark. She suggested on the basis of possibly three instances of possible battle wounds that some of the men had died in battle – she hypothesises in the battle mentioned in Chapter 20 of *Orkneyinga saga;* she also noted that many of the bones showed the effects of physical activities: rowing, sailing, riding and grinding grain. Most of the people had died in childhood or as mature adults.

Fig. 5.07: remains of the medieval chapel above the erosion section, looking north-west.

Conclusion

The area around Newark Bay and east to the Point of Ayre illustrates a variety of Viking-Late Norse settlement. There are possible/known buildings over 15mOD overlooking the sea (Aikerskaill and no. 16) and a little further inland above the open valley of the bay (no. 5); probable major Viking-Late Norse settlement mound(s) in classic locations on the slight eastern bay arm (nos 4 and 4a; Fig 5.08); and possibly another along the coast-edge (no. 7). The best comparison might be with the paired Tuquoy-Langskaill settlement in Westray, with Aikerskaill being the slightly inland settlement linked to the chapel-related, Viking-Late Norse building on the bay-side at Newark. The building at Quoys was potentially also contemporary, adding another level of complexity to the settlement pattern.

Fig. 5.08: the erosion section at mound-site no. 4. The lower stonework just above the boulder clay may be walls or drains; very dark shelly midden can be seen above those features and large structural stones and paving above that.

Area 2: Sandside Bay and the Brough of Deerness: Figs 5.02 and 5.09

Introduction: the archaeology of Sandside Bay and environs

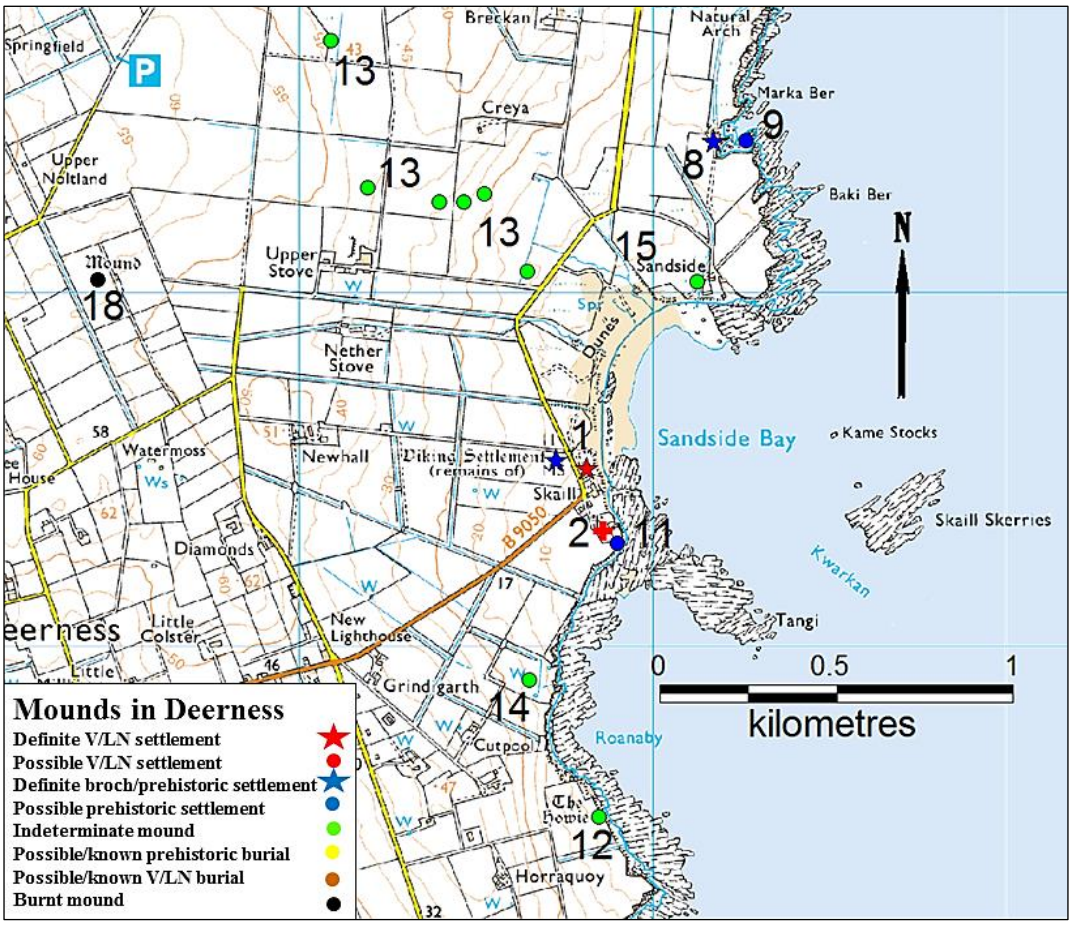


Fig. 5.09: archaeological mounds around Sandside Bay.

Sandside Bay is an open, relatively exposed bay: the land shelves up gently to the west and the headlands are low (Fig. 5.03). The central area, now criss-crossed with drains, will have been damp before improvement (Limbrey 1997, 20-21). Below the 20m contour the bay is shaped by low, spread windblown sand dunes, creating hummocky, rough grassland. The dunes immediately north of Skaill farm are now deflated and eroding quickly, with patches bare of grass; towards Sandside farm the low links are more stable.

A number of the recorded archaeological mounds in the area are indeterminate smaller mounds, most likely to be burial mounds. Almost all of these straggle up a slight rising ridge in the north of the bay in fields north-east of Upper Stove (no. 13: six mounds). However, as Raymond Lamb noted, the natural knolls and hillocks of this glacial landscape make it especially difficult to distinguish

archaeological mounds (1987, 7). Only two of the mounds catalogued under site 13 have given up even the slightest evidence of containing archaeology. These mounds are however positioned to be seen from the northern part of Sandside Bay and some are visible from the Bronze Age site excavated by Peter Gelling on the bay (no. 1). Of the remaining indeterminate mounds the burial found at Sandside farm (no. 15) may have been beneath a mound;[8] the slight mound above the rocky shoreline south of Sandside Bay may be natural (no.14). A small excavation on the larger mound of The Howie, half kilometre south again and on the low cliff-edge, failed to determine whether it was a chambered cairn or settlement (no. 12). There are a number of burnt mounds recorded around the summit of The Ward and one (no. 18) closer to Sandside Bay. However, the slight ridge running north from New Hall farm makes it unlikely that was visible from the bay-side.

Fig. 5.10: looking west across land north of Sandside Bay with sites 8 and 9 in the foreground.

About half-a-kilometre north of the Bay and on the other side of a headland are the Riggin of Kami (no. 8) and the Stack of Mustack (no. 9; Fig. 5.10). The Riggin is probably a ground-galleried broch: brief reports of the limited excavation conducted by Peter Gelling the year before his death seemed to confirm the identification (Buteux 1997, 3). The turf-covered remains on the sea-stack immediately to

[8] Raymond Lamb records that there was a substantial post-medieval house at Sandside farm in ruins when Low visited in 1774 and that the farmer has discovered earlier foundations below the farmyard (1987, 26). The author noted possible structural stone in the eroding, slumping and turf-covered costal section just south of the farm in 2008 and 2013, but no form could be discerned and no midden-type material was seen.

the east, perhaps once joined to site 8, may comprise a broch-related settlement. The possible burial mounds on the hillside (no.13) are especially prominent seen from the Riggin, but the sites around the Bay are not visible and somewhat removed topographically.

Fig. 5.11: Sandside Bay and environs looking WNW © Canmore Image DP00068424.

The known Viking-Late Norse settlement lies under and around Skaill farm close to the coast, with possibly two longhouses and other ancillary buildings discovered over a 150m length of bay-edge (no.1; Fig. 5.11). One of the Viking-Late Norse structures was succeeded by a massively-built probably twelfth-century "castle" (Grieve 1999). Viking-Late Norse Skaill was: 'well placed to exploit a wide range of resources and the excavations demonstrated an economy reliant on oats and barley; cattle, sheep and pigs; fish and sea-birds – especially gannets' (Buteux 1997, 81). The parish church, built at the end of the eighteenth century, stands just south of the site (no. 2). Fortunately sketches made by George Low in 1774 (Low 1879, 53-4) have preserved details of the striking medieval church that preceded it, with a vaulted chancel set between two slender round towers. Lamb and others have argued this was a head church next to the local lord's residence, probably developed from an early private chapel (1997, 15-16; Gibbon 2006). The modern church houses a possibly eleventh-century

hogback stone found in the graveyard, but there is no conclusive evidence for a pre-twelfth-century chapel at Skaill.

Fig. 5.12: Looking NNW across Sandside Bay from just east of the modern farmhouse of Skaill, with Sandside farm in the right background, buildings around Stove on the left horizon.

From the Viking-Late Norse settlement around Skaill farm in the south of Sandside Bay, the mounds around Stove (no. 13) may have been discernible on the skyline, but in the Viking-Late Norse period the immediate surroundings would have been dominated by mounds covering prehistoric settlement. How far these were distinguishable from sand dunes is impossible to know. 100m north-west of Skaill were the mounded remains of Iron Age settlement (Gelling Site 6; Fig. 5.11); 75m south-west a mound covered Bronze Age structures (Gelling Site 5)[9] and, beyond the possible eleventh- to twelfth-century chapel, just east of the existing church, is now and certainly was then a grass-covered mound (no. 11). This last site, the Howan, like the Riggin, is a frustrating site, especially as it lies so close to the possible chapel-site and the excavated Viking-Late Norse sites. "Midden deposits" were noted in the coastal section and turf-covered remains on the headland mound seemed to indicate a bank or structures. However, in 1964 a small trial trench cut across the mound suggested it might be mainly a sand-mound, although revealing a deeply-buried, probably Bronze Age, ard-marked soil.[10] However the name Howan ON *haugr* ('mound') suggests possible re-use: the small excavation may simply have

[9] Both of these sites, which must already have been mounds in the landscape, were reoccupied probably during the seventh-eight centuries but neither appear to have been used beyond that period.
[10] Noted at Gelling's Site 5 (Buteux 1997, 24 – 31) and interpreted as the remains of Bronze Age ard-ploughed fields.

cut across an area of accumulated windblown sand in the mound. In 1982 fragmentary buildings were reported between Howan and the south-east corner of the churchyard boundary. While the character of this site remains uncertain this possible settlement cloaked under mounded sand, only 50m south-east of the Gelling's Bronze Age site, may well have been prehistoric: later structures cannot be ruled out.

The Excavations at and around Skaill Farm (HY5880 0646 centre)

Introduction and summary

Important archaeological remains from the Early Bronze Age to the Viking-Late Norse and medieval periods were excavated by Peter Gelling in Sandside Bay between 1963 and 1981. Our capacity to interpret them has been frustrated by the incomplete records left behind when Gelling died in 1983 before having time fully to publish his work. These remain important sites with an unfortunate history of excavation and post-excavation, but Simon Buteux and his team tackled the surviving records and in 1997 published an account of the various settlements found around the Bay (Fig. 5.13).

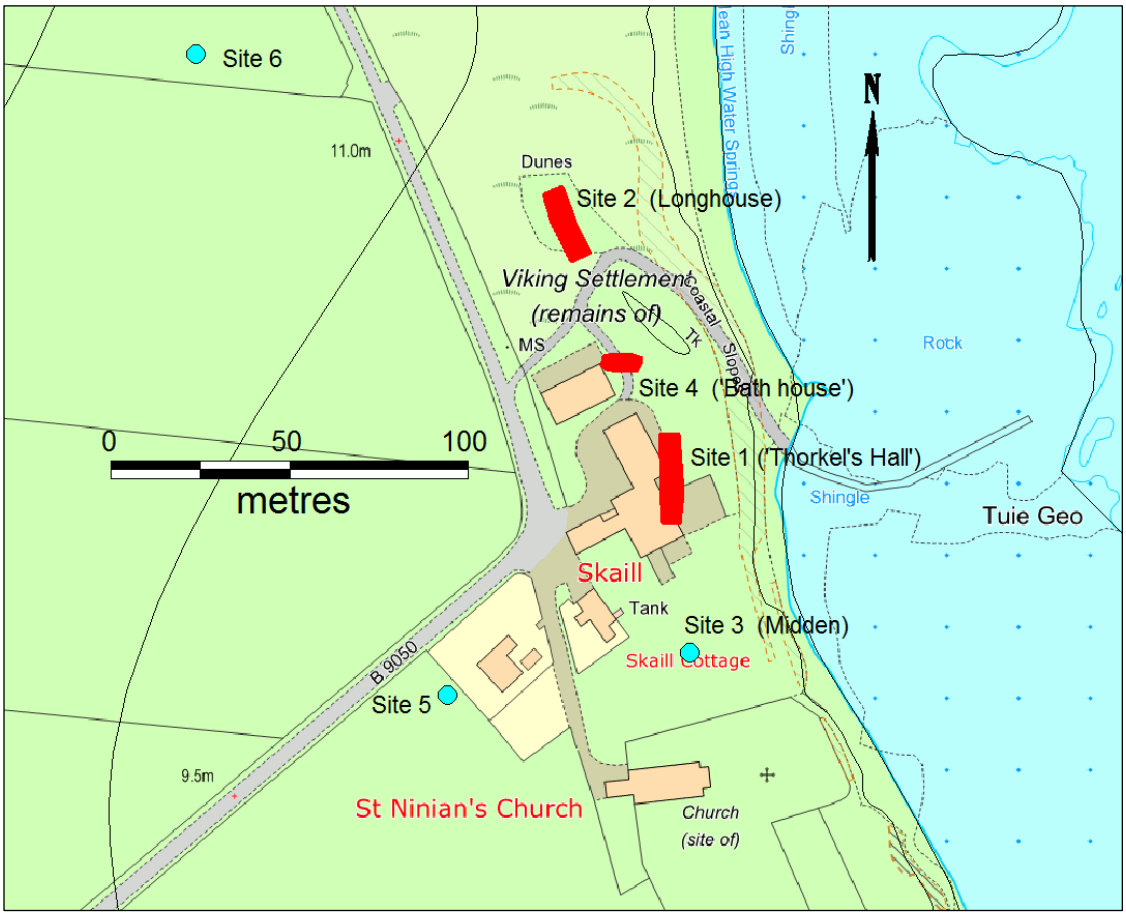


Fig. 5.13: coast-edge sites excavated by Gelling: the red shapes indicate the possible size of the principal Viking-Late Norse structures on Sites 1, 2 and 4.

Five sites were investigated by the beach and within a radius of 100m from north of the modern farm buildings.[11] Of the two sites a little inland, Site 6 revealed mostly Late Iron Age structures (c. AD200-600), focused on a large round house, and Site 5 Early-Middle Bronze Age cultivation soils with ard-marks, beneath a figure-of-eight plan settlement of the Later Bronze Age (c.100-700BC). Both these sites produced evidence of later reoccupation, tantalisingly difficult to date or characterise, but possibly from the seventh-eighth centuries (Buteux 1997, 50-51). The Viking-Late Norse settlement was obviously extensive and uncovered in four locations within 50m of the high-water mark: at Site 2 were found five superimposed buildings perhaps spanning the eighth to eleventh centuries, one of which 'conformed to the conventional hall-house type' (ibid. vii); at Site 1 the corner of what might have been a large c. eleventh-century longhouse; between those two sites, at Site 4, an ancillary building originally interpreted as a bath-house; and a possible Viking-Late Norse midden found in a small trench at Site 3. The early phases of Site 2 are very difficult to interpret (see below) and may have included a pre-Viking Late Norse building, perhaps associated with the "re-occupation" seen at Sites 5 and 6. The substantial remains of a Later Norse building were also found at Site 1 and interpreted as a twelfth-century "first-floor hall", occupied and much-modified well beyond the medieval period and lying partially beneath the modern farm's central building.

Viking-Late Norse remains were therefore discovered across a stretch of land nearly 150m long running parallel to the coast and included at least one, possibly two, considerable longhouses with ancillary buildings. Unfortunately the various structures and middens cannot be related chronologically with any confidence, but it is likely that Viking-Late Norse use of Sites 1, 2 and 4 overlapped. The topography of the area in that period is impossible to reconstruct as the land's earlier form has been so altered by the effects of excavation, sand movement and modern building.[12] However, on the First Edition OS map a mound is clearly marked where the Site 2 longhouse was found and another north-east of the church: the modern topography suggests that the area around Sites

[11] Along with various little trial trenches, such as at the Howan.
[12] Almost nothing can be gleaned from the published excavation records of the micro-topography of the contemporary land surfaces: the only really clear evidence is for the Bronze Age plough surface.

4 and 1 was also once more prominent in the landscape, and has been altered by a great deal of sand-moving (Fig 5.14).

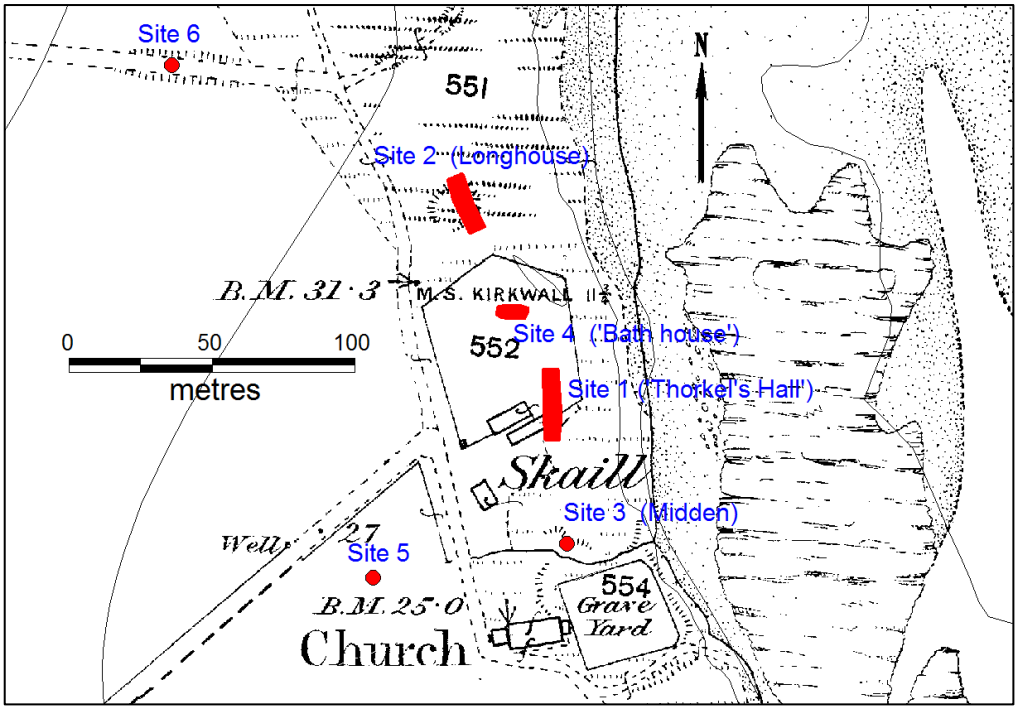


Fig. 5.14: the excavated sites on the First Edition OS map: the red shapes indicate the possible size of the principal Viking-Late Norse structures on Sites 1, 2 and 4.

This section will now analyse the published reports of the sites at Skaill to draw out aspects relevant to the study of sand settlement mounds. A re-examination of the original papers, against the background of more recent excavations of Viking-Late Norse sites, would bring more to light, but was not feasible within the scope of this research. Aside from noting the possible later use of Sites 5 and 6, which were interpreted to have been finally abandoned towards the end of the eighth century (on the basis of artefacts associated with truncated structural remains), the focus will be on the string of coastal-sites with certain Viking-Late Norse occupation.

Challenges posed by the surviving excavation records

Peter Gelling's summary account of the Viking-Late Norse structures was published in 1984 (also as Chapter 7 of Buteux 1997) and some unpublished typescripts covering other aspects of the sites were discovered in his papers. However, no report on Site 6 had been completed, many figures were missing and the original excavation archive – essentially notebooks and site drawings – lacked many elements crucial to modern recording and interpretation. As Buteux noted: 'the system used for

labelling contexts and artefacts was … difficult to disentangle': no height data was recorded, contexts and features were not numbered, or described in detail or systematically, and finds only located descriptively in relation to features rather than measured within a site grid (1997, 24). 'No use was made of pro-forma record sheets…Gelling's own site notes are very brief' (ibid. 38); very few or no section drawings seemed to have been made. As a result many of the details of the site phasing cannot now be followed (ibid. 38). Very few confident associations could be made between artefacts and structures, or structures and middens – relationships hard to establish even with the most meticulous recording. All of this was further complicated by the almost inevitable residuality of finds encountered on sites with superimposed buildings. The dating of phases must remain broad-brush despite a handful of radiocarbon dates for Sites 5 and 6. However, the work recorded in Buteux's volume, including compiling a full finds report and analysis of the ecofactual material, has recovered at least an outline of the archaeological sequence. For this study it is a great shame that middens were recorded in so little detail and that no wall elevations (for considering structural phasing) or other sections appear to have survived.

Site 2: superimposed longhouse and ancillary buildings

Fig. 5.15: Site 2 under excavation, looking south © Canmore Image SC00450812.

Site 2 was found north of the modern farm buildings in sand dunes (Fig. 5.15). It must have been a more extensive site than that revealed in excavation: buildings ran south beyond the trench and some of the site had probably been lost to erosion in the east. The maximum area cumulatively uncovered was c. 200m^2 (Fig. 5.16). Gelling described the buildings as a sequence of five north-south aligned "rooms", underlining their incomplete disclosure, linked to a sequence of three middens (1984).[13] The site was dominated by re-used structural elements, including walls; there were few identifiable *in-situ* floors or primary occupation layers, and the vast majority of the finds came from the middens and from amidst collapsed features. Many of the finds from around decayed walls were therefore as likely to have come from midden-enriched wall-fill as from disturbed floors.[14] The material discovered in wall-fill was assigned to the assemblage of the *preceding* building, which had been exploited for remodelling (for example a rotary quern and steatite tuyère in the walls of House 2; Edwards 1997, 72). However, this material probably came from midden-type material incorporated into the wall-fill from an older established midden, or even from deliberate deposits marking the remaking of the building (c.f. Buckquoy [Birsay], p. 146).

The plan and description of House 1 suggests that even its purported Phase 1 was a reconfiguration of earlier structures, with the east wall clearly comprising two phases as drawn, and the northern end appearing an amalgam, possibly with another building reaching further north (Fig. 5.16 for outline). Given the difficulties posed by the excavation record and the likelihood of unrecognised stages of reconfiguration, any dating of "House 1" must be very tentative. The finds thought to be associated with this phase, including both Pictish bone artefacts and Viking-Late Norse combs, pins and steatite, might be considered 'cultural[ly] ambivalent', but might also be the result of lumping together finds

[13] In her re-analysis Rachel Edwards questions the midden chronology established by Gelling (1997, 70-81); no details of the composition or internal structure of these middens seem to have survived. It is not impossible that they may have included midden-infill of annexes/ancillary buildings related for example to House 3, the longhouse.

[14] Thus the presence of stone artefacts in the wall collapse of the earliest "house" does *not* necessarily imply stone was brought onto site from other structures elsewhere (pace Edwards 1997, 72), but rather the use of accumulated midden in the "earth-fill" of wall construction. Edwards suggests that pottery very similar to sherds from Site 6 (final stage) and found in House 1 wall collapse may have been transported with re-used structural stone (71). Use of midden-type material is more likely.

from several superimposed phases covering a longer time span (Buteux 1997, 76).[15] There is no clear evidence for an actual Pictish building underlying the Site 2 sequence but the discovery of a possibly Pictish Christian grave-marker is another hint there may have been Pictish settlement locally. House 2, interpreted as a remodelling of House 1, reused most of the existing walls but seemed to mark the introduction of orthostatic internal furniture, including benches.

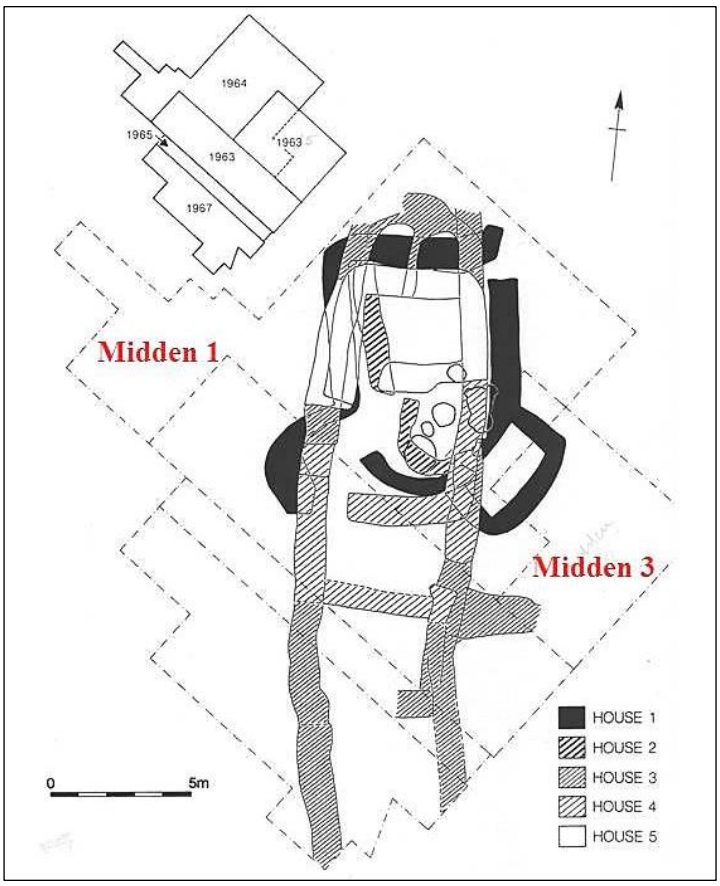


Fig. 5.16: Composite plan of Site 2 houses, after Buteux 1997, 82.

House 3 was described by Gelling as a "hall-house" and measured 4.6m internally by c. 18.9m long, although neither end was recorded (Fig. 5.17). Gelling and Edwards argued that the House 1-2 sequence was abandoned before House 3 was constructed, as the outer face of the east wall of the later longhouse was erected on windblown sand accumulated over the 'stump' of the east wall of House 2 (Edwards 1997, 74). Although sharing the same alignment and on top of the earlier "Houses" Edwards suggests previous structures are not "reused", this despite the plans suggesting stretches of walling

[15] It perhaps should be emphasised that this discussion of ambivalence rests on an assemblage of only six combs apparently from House 1 (76-77).

literally superimposed on their perhaps partially dismantled predecessors. It is impossible to be certain from the descriptions and drawings available. What this does suggest is that the site would have been acquiring a mounded look.

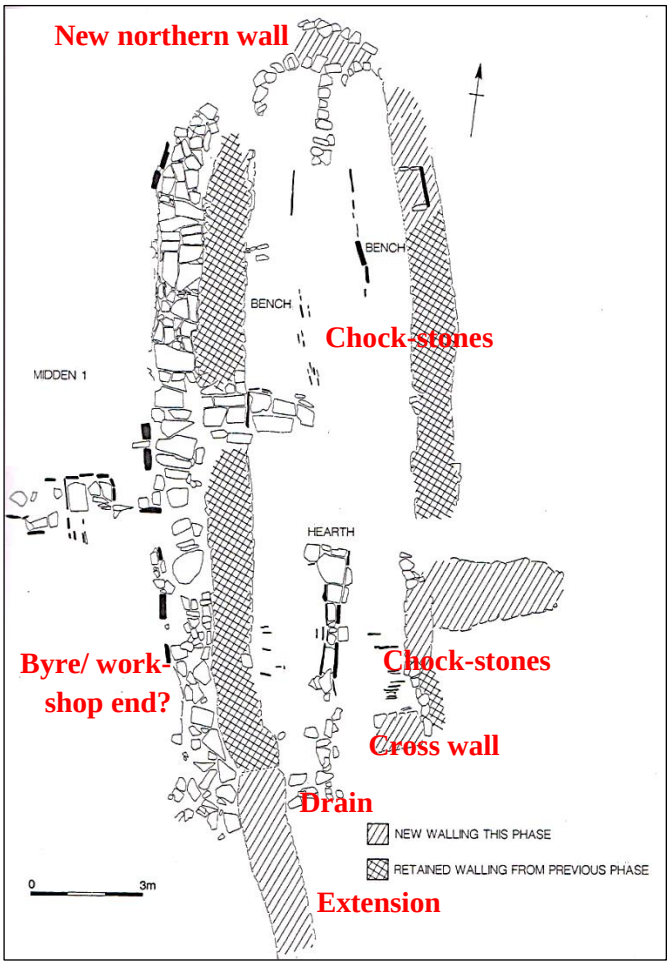


Fig. 5.17: House 3, Phase 2 after Buteux 1997, 85.

Features familiar from other ninth- to tenth-century longhouses in Orkney are recorded: a soakaway drain under a paved approach to an entrance; chock-stones for securing light internal partitions, and side benches in the northern portion of the house. The hearth in the south is rather unusual-looking and it would be very interesting to known how burnt were the stones of this "hearth" structure: it rather resembles an orthostat-lined path down the centre of a building, and the quantity of chock-stones to each side raise the question of whether this might not have been the southern byre-end of the building. Two middens are linked to phases of House 3, both to the west of the building. Midden 2 (with few finds) was contained by an orthostatic kerb and may have been used as a work-area. Midden 1 to the

south was assigned by Gelling to the succeeding "out-building" phase, but Edwards suggests that, as it contains the 'largest and finest assemblage' of finds – finds likely to be associated with a 'distinguished' longhouse – the midden should be related to House 3 (ibid. 77).[16] Both middens might of course have come from the same phase but been put to different uses.[17] They may even have included at least some detritus from another as yet undiscovered building.

Phase 2 of the longhouse included the insertion of a cross wall, the apparent extension of the longhouse to the south on a slightly different alignment, although this is not discussed, and the creation of a new rather odd northern end with two bays (Fig. 5.17). Edwards specifically mentions that the new north end of the eastern wall was rebuilt with quarried stone rather than beach cobbles (1997, 74); a good example of undisguised remodelling. Clearly, 'no single method of building a wall was preferred' (ibid. 77).

The longhouse then seems to have followed a now familiar trajectory of downgrading and/or reducing in size: the final two "Houses" were both probably ancillary/out-buildings for a principal dwelling elsewhere, perhaps on Site 1. The finds related to these phases all appear to be Viking-Late Norse. House 4, 7.3m long internally,[18] reused the northern end of the longhouse and its wall benches; while House 5 – only 3.65 by 2.4m – recalls the final square building on the East mound at Skaill (Sandwick): three of its walls reused or refaced those of the previous House and a small hearth was built against the new southern wall. Again the finds appear to be Viking-Late Norse. Buteux and Edwards propose a date range for the site of late-eighth or ninth-century to eleventh- perhaps early-twelfth-century: the only radiocarbon dates were taken from Sites 5 and 6 (Buteux 1997, 251: Table 22.1).

[16] The 29 finds from this area of midden were domestic Viking-Late Norse in character: ninth-to eleventh-century combs, bone pins, spindle whorls and iron nails.
[17] Midden 1 contained mostly pot-boilers and two bone pins: a similar midden was discovered east of the East Mound ancillary building at Skaill (Sandwick).
[18] Thus similar in size to the rectangular ancillary building on the East mound at Skaill (Sandwick).

Site 4: The cook-house (HY5883 0648)

Less than 40m south of Site 2 is the area designated Site 4 where, under a post-medieval barn and corn-drying kiln and up to 1.5m of windblown sand, Gelling discovered the building he interpreted as a Viking-Late Norse bath-house. The sub-rectangular building, measuring 11.6m by 4m internally and aligned near west-east, was constructed onto a thin layer of 'occupation material'; its west and east walls were described as stone facings built against 'adjacent accumulations of sand and occupation material' (Edwards 1997, 78-9). Both of these observations suggest the building did not represent the first activity in the area especially as already accumulated midden was being used in construction. Excavation, constrained by surrounding farm buildings, was limited to the walls and interior.

An internal clay floor was laid over the "occupation material"; patches of different texture and colour may have represented repairs, but may also have reflected the varied inputs comprising the "clay" floor – likely to have been put together like the "clay" floors on the East Mound (Skaill, Sandwick) utilising kitchen-related midden-type material. Of the two hearths one was unusual – a rectangular stone box enclosed the fire – while the other was a simple paved square, surrounded by laminated layers of ashy hearth material. A possible flue was inserted, probably later and to stoke this hearth. The artefacts found within the building included a possibly Viking-Late Norse spear-head and bone points and pins which, although not diagnostic, could be Viking-Late Norse. Buteux tentatively reinterpreted this building as a specialised kitchen (Buteux 1997, 80).

Site 1: Thorkel's Hall (HY5885 0639)

Just 20m south-south-east of the "cook-house" and again restricted by modern buildings Gelling excavated Site 1.[19] Here extremely fragmentary remains of a possible Viking-Late Norse longhouse were revealed, appearing from under a massively-built and perhaps originally twelfth-century tower room. High-quality wall fragments were recorded north and south of a wall of the later building. The elements are impossible to reconstruct confidently as an arrangement of walls, but the most northern

[19] The walls were seen appearing either side of the walls of the later building, which were not removed. To the south of the later wall an area 6m by 4m max was revealed; to the north of the wall an area 4m by 2m (1997, 87: Fig. 7.10).

and most western stretches seem to make a corner and are perhaps the only ones substantial enough to be external (Edwards 1997, 81). Gelling remarked that stones used in the earlier walls seemed more expertly-laid and carefully selected than elsewhere (1984, 35) and proposed that this was a building of 'appropriate pretentions' to be the hall of Thorkel Fostri (Buteux 1997, 80). As discussed already it is perhaps stretching the evidence confidently to place *Orkneyinga saga* events at Skaill farm: it is stretching it even further to discover Thorkel's Hall in a few metres of fragmentary walling. Here interpretation has been distorted by the assumption of a local association with a leading earldom character and the urge to find archaeological authentication for saga happenings. It also distracts from considering the longer Viking-Late Norse history of the site.

The high-status twelfth-century building seems to have parallels with The Wirk (Rousay), Cubbie Roo's Castle (Wyre) (Grieve 1999), and most persuasively with Tuquoy (Westray), where a similar building was erected incorporating an earlier longhouse and close by a Romanesque church (see pp. 233 ff.). No diagnostic finds were associated with the Deerness building but the "castle" apparently 'sits happily in the later-twelfth-century milieu' (Buteux 1997, 215).

Fig. 5.18: Sandside Bay looking south towards Skaill farm.

<u>Site 3: Midden</u> (HY5884 0644)

Finally, 40m south of the hall and tower room, a drain covered by an area of paving was uncovered in a trial trench c. 10.7m by 2.4m (Edwards 1997, 80-81). A north-south paved path was laid over the drain and paving and sealed by a deep midden containing mainly pot-boilers. This midden was assumed to be contemporary with Site 1 buildings but on such a complex and extensive site it seems as likely that the deposits relate to undiscovered structures.

Summary of mound-related building techniques used at Site 2, Skaill (Deerness): see Table 5.02

Conclusion

This bay is comparable in many aspects to both the Bay of Skaill (Sandwick) and in particular to Tuquoy (Westray): its distance from the Brough of Deerness makes it difficult to make direct links with settlement relationships at Birsay Bay (Fig. 5.19). The possible location of Thorkel Fostri's hall at Skaill has perhaps too much influenced interpretations of the site's role in a settlement hierarchy. Yet in the twelfth century it was obviously a place of some significance with a striking church and tower-building: a place integrated into the by then changing *veizla* network but not necessarily of the same exalted status as the Birsay area or Earl's Bu (Orphir). What is more interesting perhaps is that the modern farm has not moved from the location of Viking-Late Norse settlement. Did it stay put because of the church, and because the bay was so open and so handy for beaching boats, or because the local soils were too challenging off the sand? It is possible another Viking-Late Norse slightly inland site to partner this coast-edge settlement is yet to be discovered.

The Brough of Deerness: (HY5958 0878)

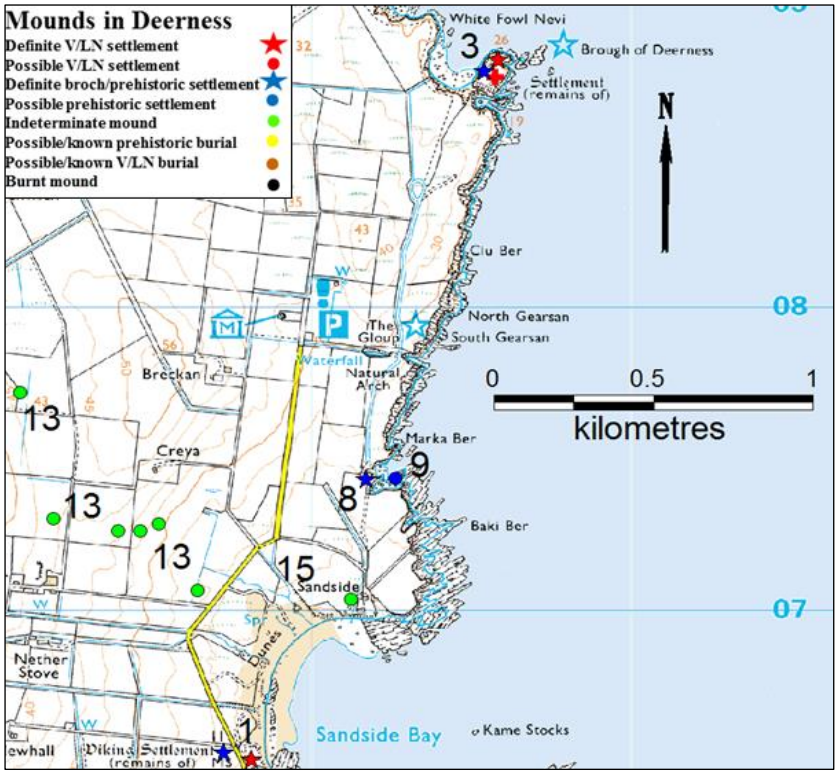


Fig. 5.19: archaeological mounds and the Brough of Deerness.

The Brough of Deerness (no. 3) is 2.3km north-north-east of Skaill – the nearest discovered Viking-Late Norse site: quite a contrast to the many Viking-Late Norse sites found within a kilometre radius of the Brough of Birsay. The Deerness Brough is a small sea-stack, only c. 75m west-east by 110m north-south, rising about eight metres above sea level with near sheer sides. The bay just to the west could be used for beaching boats but, although the Brough is connected to the coast at beach level, the flat top is accessible only by struggling up a steep cliff-side path. It is not certain whether the stack was ever joined to the mainland but James Barrett suggests the gap, being the result of a geological fault, was already present in the Viking-Late Norse period (Barrett and Slater 2008, 1). On the summit are visible the substantial remains of a stone chapel and the grass-covered earthworks of about 30 sub-rectangular structures (Fig. 5.20). These earthworks delineate a palimpsest of structures, but many of the buildings follow a relatively regular layout lying on similar alignments either side of a thoroughfare, presenting an overall appearance of organisation.

Fig. 5.20: the Brough of Deerness looking west © Canmore Image DP00068420.

The first modern archaeological investigations were undertaken in 1975-77 led by Christopher Morris (Morris and Emery 1986): excavation was limited to work on the chapel and its enclosure ahead of consolidation work and discovered two broad phases of use. The first chapel appeared to have been of timber with stone cladding and was followed by an "intermediate" phase of more domestic use and/or levelling-up. An Anglo-Saxon coin of Edgar (AD 959-75) was found in deposits of this phase which also produced a radiocarbon date range of AD640-820. It seems probable this phase at least partially represents ground preparation for the construction of the second stone-built chapel (Fig. 5.21). The stone chapel is uni-cameral, 5.2m by 3m internally and stands within a near-rectangular enclosure c. 14.4m by 12.2m: a radiocarbon date from this phase produced a range of AD1030-1249. Very few burials were found, suggesting the chapel was either not routinely used for interment or that burial there was restricted to a very small group. Two infant burials were related to the timber phase and an adult, a child and an infant to the stone chapel. Morris suggests that the chapel could be entirely Viking-Late Norse with a c. tenth-century timber building and eleventh-twelfth-century stone phase. The chapel seems to have fallen out of use by around the end of the twelfth century.

Before Morris' excavations, interpretations of the stack-top settlement had tended to assume it was monastic, either a Celtic or Viking-Late Norse ecclesiastical community or both, although the

possibility it had been a secular site with a private chapel was also proposed (e.g. Lamb 1983; Wainwright 1962).[20] The results of Morris' excavations did not end debate and the site may have begun as an early Christian community, followed by Viking-Late Norse domestic occupation which acquired a chapel, and ended as an ecclesiastical site.

Fig. 5.21: the stone chapel under excavation looking near east © Canmore Image SC00503801.

Then in 2008 Orkney College Geophysics Unit carried out geophysics, followed by excavation of several structures on the Brough (Barrett 2008; Barrett and Slater 2008, 2009; Gerrard and Barrett 2010). The geophysics confirmed the impression of phases of structures, many of which could be contemporary, developing within an organised overall plan: 'a substantial nucleated settlement' (2009, 3). Three buildings were excavated all of which were clearly Viking-Late Norse and domestic. The last phases of the houses were eleventh- to twelfth-century, but their life-spans embraced long sequences of modification and remodelling, many floors and, in the case of House 20 at least, construction over an earlier building. Two of the houses were built over and into underlying midden which was radiocarbon dated to as early as the sixth to seventh centuries. House 25 began as a domestic building and, after new cross-walls were inserted, changed to non-domestic use. The Viking-Late Norse settlement was built into Pictish occupation layers, but there was no record of mixed

[20] Lamb saw the Brough as a monastery linked by patronage to the head church and settlement at Skaill, reflecting the relationship between the Brough of Birsay and settlement in the Birsay village area; this despite the much greater distance between Skaill and the Brough of Deerness (Lamb 1997, 16).

cultural horizons or clear evidence of a hiatus. Barrett defined the Viking-Late Norse period settlement as a 'chiefly stronghold, rather than an ecclesiastical centre or a temporary refugee' (Barrett and Emery 2009, 3), emphasising the domestic nature of the finds, some with high-status associations, discovered within a long-lived group of buildings apparently organised by an over-arching power. Both Deerness and Birsay Broughs have been described as 'citadels of earls or magnates' (Barrett 2012, 18).

Fig. 5.22: House 20 under excavation, from Barrett 2008, 88.

This nucleated settlement is different from any of the other Viking-Late Norse occupation sites so far excavated on Orkney (except for areas on the Brough of Birsay). While the building techniques and finds are very familiar from other Viking-Late Norse sites, the grouping together of several smaller frequently-modified houses at a visible, status-proclaiming location recalls the "Court Sites" of western and north-western Norway (see pp. 388-91) Broader comparisons with the Brough of Birsay, as Morris and Emery noted, do not 'stand up to rigorous scrutiny' (1986, 350). The Brough of Deerness is more inaccessible and exposed, with a small summit constraining the area of settlement. The Deerness buildings are more uniform, speaking perhaps of continuity of control. Most significant is its apparent – perhaps deliberate – distance from any other Viking-Late Norse site, in this retreat more akin to say Langskaill on the small island of Gairsay than to Birsay. There may yet be Viking-Late Norse burials and buildings to be discovered on the adjacent headland, but the rough, flat often heathery land of Mull Head is far less enticing as a place to live and farm than Birsay Bay. The

Brough of Deerness was perhaps more likely to have been the place of a powerful magnate than a regular stop for peripatetic earls. It is further evidence for the diversity of Viking-Late Norse settlement and also yet more evidence for the tenacity of the trope of rebuilding on the same spot. Although the space-restricted location may have demanded that houses stayed put when altered, that approach also had cultural resonance and, even without a mound, may have helped accentuate the persistence of power.

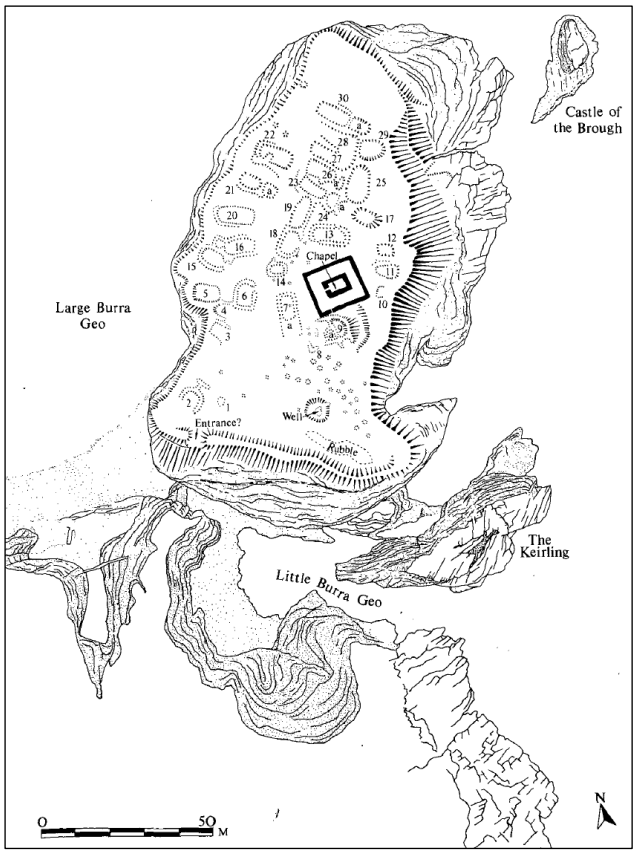


Fig. 5.23: topographical survey 1977, from Morris and Emery 1986, 311.

Summary: settlement in East Deerness

There is more research to be done in East Mainland to elucidate the Viking-Late Norse settlement pattern. The considerable coast-edge settlement at Skaill might be expected to have had a linked inland Viking-Late Norse settlement mound, and the range of settlement of that period on Newark Bay is not clear. Although not obvious mound-sites, the higher inland site at Quoys and the houses on the Brough sea-stack are further examples of the potential diversity of Viking-Late Norse settlement (Fig. 5.24).

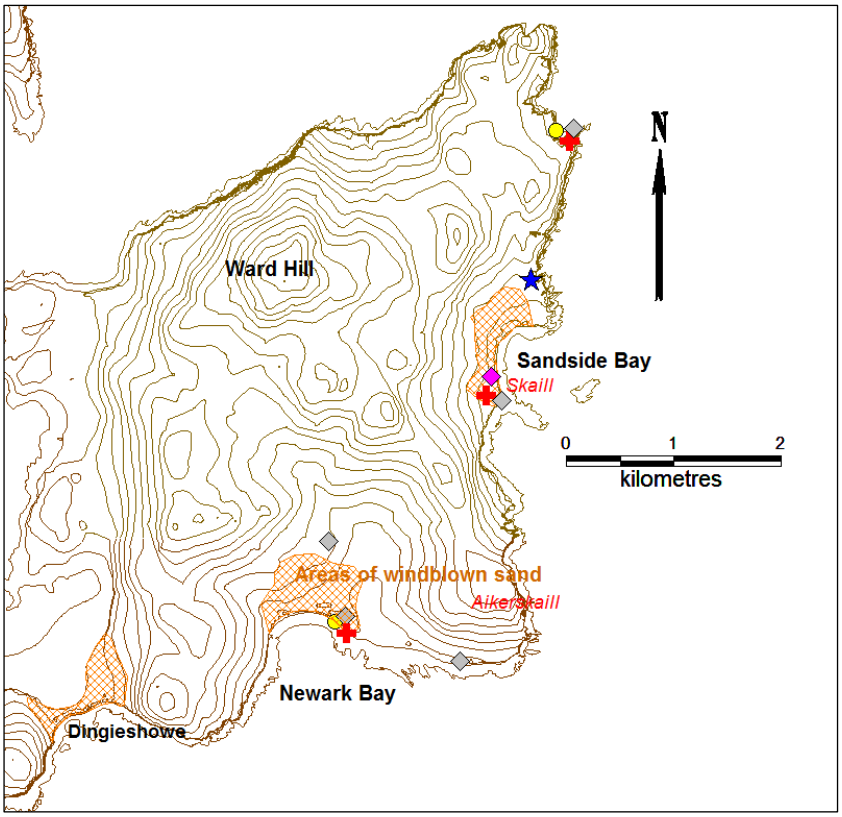


Fig. 5.24: Deerness settlement pattern hypothesis: pink diamonds, definite multi-period settlement with Viking-Late Norse phases; grey diamonds, possible multi-period settlement; yellow circles, Viking-Late Norse burials; blue star, broch; and red crosses, chapels.

Chapter Five (2): archaeological mounds and skaill-sites on Rousay

Introduction

This section looks at the distribution of archaeological mounds in the two skaill-areas of Rousay. As before mounds in these areas have been categorised by period and type and examined in relation to topography, coastline, drift geology and chapels. The excavated Viking-Late Norse site at Westness/ Swandro will be analysed as a settlement mound. As the number of mounds involved in this case is small the results have not been collected in a table.

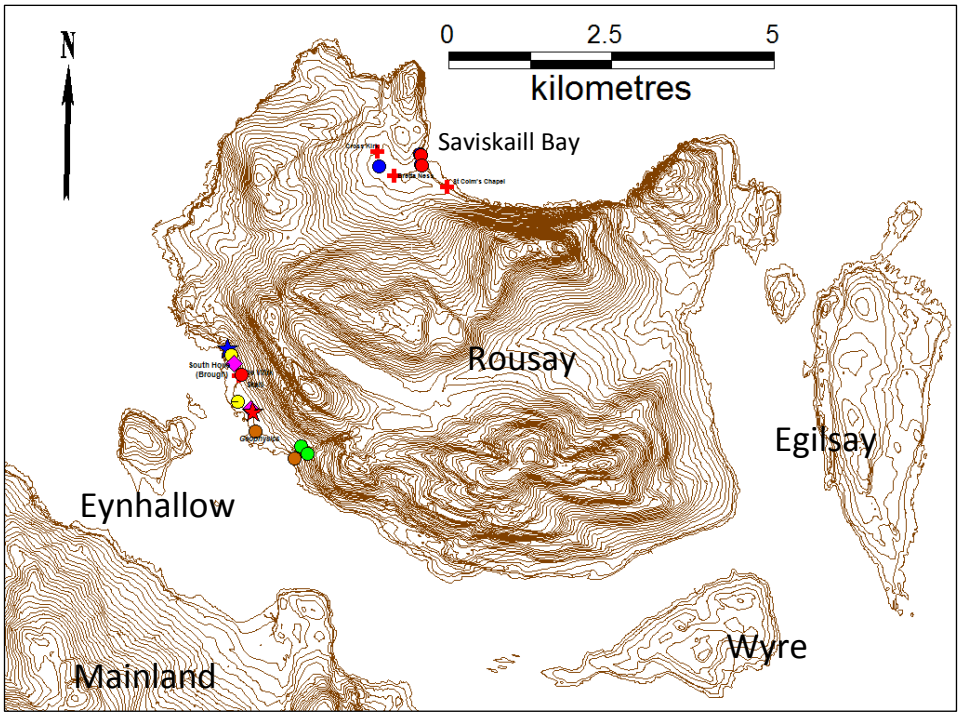


Fig. 5.25: the topography of Rousay.

The island of Rousay is relatively small, c. 9.5km west-east and 8km north-south, and axehead-like in shape, with the southern and western sides forming the convex blade, and the near straight eastern coast opposite Egilsay and the wide, open bay of Saviskaill in the north together creating its back. Its topography is distinctive: today one road runs around the island avoiding the compact, hilly moorland interior, which reaches over 230m in the south-east. Those hills rise suddenly from a narrow fringe, often less than a kilometre wide, of flatter, coast-edge land in the west, south and east, and a slightly more open area at the western end of Saviskaill Bay around the Loch of Wasbister. The geology is predominantly Upper Stromness Flagstones with drift geology of glacial till; there are localised areas of windblown sand beach/drifts.

Despite the dominance of the central highlands, which effectively limit settlement and arable land to the coastal strip, the island has had a strategic location guarding the western sea-approaches to the centre of the archipelago. *Orkneyinga saga* describes how Svein Asleifsson approached Rousay from the west through Eynhallow Sound to abduct Earl Paul (Pálsson and Edwards 1978, ch. 74). Large farms, like Westness, thrived on the coast-edge with ample rough grazing, turf and peat in the hills to support cultivation of better coastal soils. Powerful men settled in Rousay in the Viking-Late Norse period, in particular Sigurd of Westness. Significantly for this research Earl Paul was twice mentioned in *Orkneyinga saga* as being '*á veizlu*' with Sigurd: taking advantage of his follower's obligation to offer earl-appropriate hospitality and accommodation (ibid. chs 33 and 74). One of the Rousay's three skaill-sites is in the Westness area; two are on Saviskaill Bay in the north.

The skaill-areas

There are thus two areas of skaill-names in Rousay, which coincide with the known/possible Viking-Late Norse archaeology. One of these areas has been much investigated: that around an abandoned Skaill farm on Westside (HY3737 3010; Fig. 5.26). The other has had very little archaeological attention: the western end of Saviskaill Bay where there are two extant farms called Langskaill (HY4027 3287) and Saviskaill (HY4004 3352; ON *sævar skáli*: ('sea' 'hall'). Both Skaill and Saviskaill are coast-edge sites; Langskaill is 350m inland.

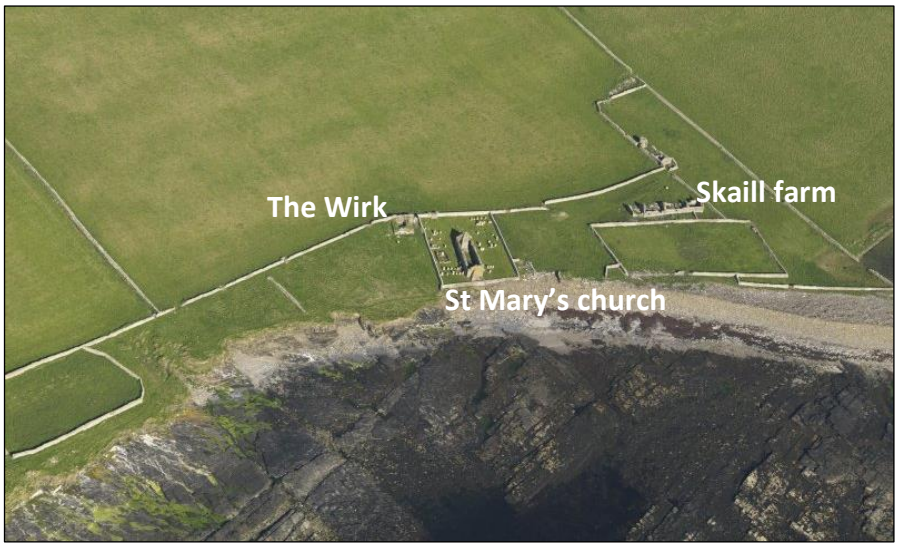


Fig. 5.26: looking east to St Mary's (Skaill) church, the Wirk and the ruins of Skaill farm © Canmore hhttps://canmore.org.uk/collection/1144050.

Skaill Area 1: Skaill and Westside

The skaill-name on the western side of Rousay is attached to a farm which fell victim to the 1845 clearances (Fig. 5.27). The ruined buildings of a relatively small farm are still visible south of the remains of St Mary's church (often called Skaill church; Canmore ID2281), which was abandoned as the parish church in 1815. St Mary's may have replaced an earlier church on the same site; perhaps the chapel of the original Skaill (Lamb 1982, 54; Marwick 1952, 65). Just outside the north-east corner of the churchyard, and on a large and decided mound, lie the ruins of a well-built, stone tower-like structure, about 72m^2, called The Wirk: the foundations of further building elements may be hidden within the lumpy grass-covered slopes to the west and east. These sites are discussed further below.

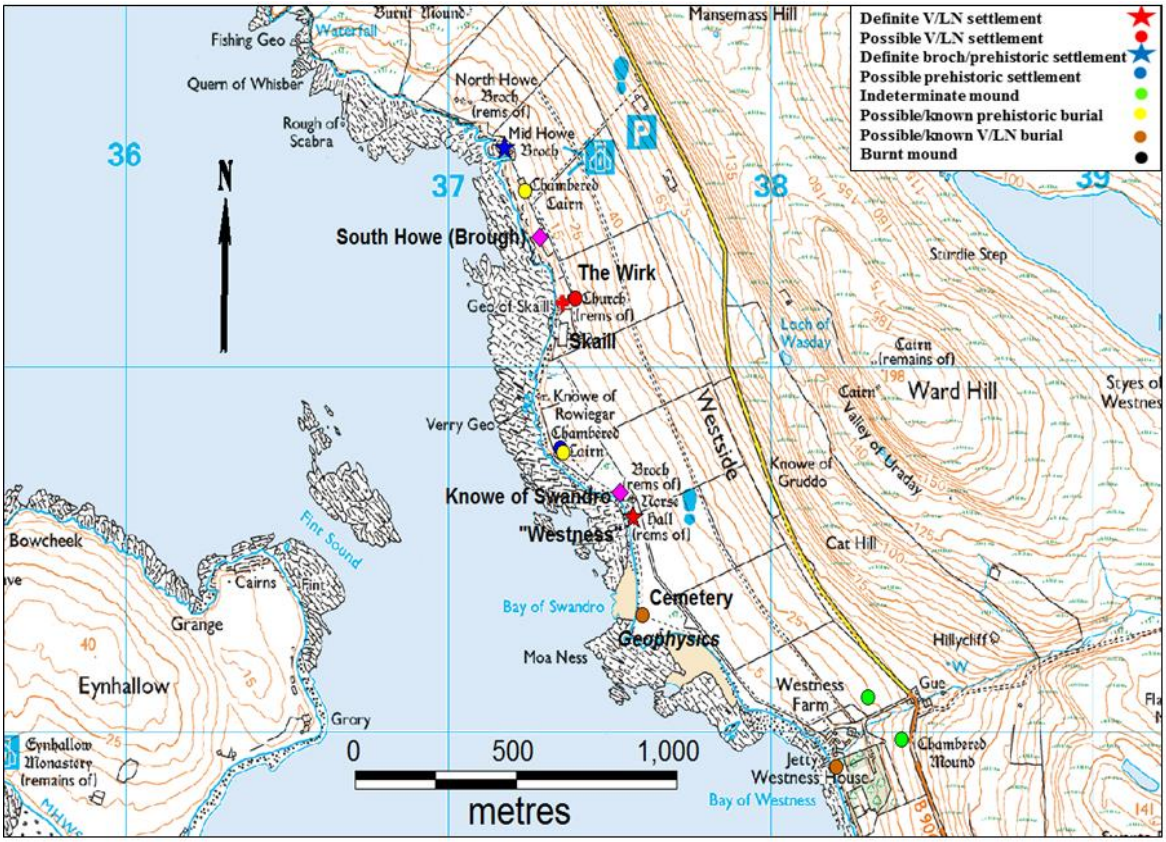


Fig. 5.27: the sites of Westness: pink diamonds are multi-period mounds.

This cluster of buildings stands at the heart of one of the richest archaeological coastal stretches in Orkney. The two-kilometre long, narrow strip of slightly more level land running south-east from North Howe, a possible broch, to Westness Farm in the south has mounded sites incorporating burial and settlement archaeology from the Neolithic to the Viking-Late Norse period and beyond. North Howe, an

unexplored, possible broch site stands on a spread mound;[1] 200m to the south-east the splendidly consolidated broch of Midhowe was recorded, before its excavation in the 1930s, as a mound perched on the small promontory created by two narrow geos (Fig. 5.28). The second site displayed under Historic Scotland Guardianship is the Orkney-Cromarty Stalled cairn of Midhowe, 140m south-east of the broch, also excavated in the 1930s. Before investigation the cairn must have appeared as a substantial mound dominating the slope down to the rocky shore.[2] The most southerly broch site is that of South Howe/Brough (discussed below). There are therefore three brochs within 500m of coast-line; and as will now be discussed, three Viking-Late Norse sites within 750m.

Fig. 5.28: Midhowe broch © Canmore Image 1514300.

The Viking-Late Norse settlement and burial evidence

The Viking-Late Norse settlement landscape of Westside was as rich and complex as that of the prehistoric period. The two multi-period settlement mounds discussed below – South Howe and Swandro – both have Viking-Late Norse phases. Three further sites are recorded, although the history of their excavation is such that they are poorly documented. These sites are, moving south: the "tower" site

[1] Canmore ID2276; geophysics conducted in 2009 by Orkney College appeared to confirm North Howe was (at least partly) a broch site (Dockrill and Bond 2010, 10).

[2] Midhowe broch, Canmore ID2286; Midhowe cairn, Canmore ID2274: excavation of these two sites in the 1930s left no record of any Viking-Late Norse re-use of the broch and cairn mounds. Excavations of this period tended to target the prehistoric monuments and may have chosen not to record unexceptional (non-burial or artefactual i.e. midden/structural) archaeological remains of any post-Iron Age period.

at The Wirk; the longhouse and ancillary buildings at Westness (which is part of the multi-period mound of Swandro); and the Pictish-Viking Late Norse cemetery at Moa Ness (Fig 5.27).

<u>South Howe/Brough: a multi-period settlement mound</u> (HY3737 3036)

The mound of South Howe/Brough, about half way between Midhowe cairn and the Wirk, has been investigated recently by the Orkney Gateway to the Atlantic Project (Dockrill and Bond 2010, 10-23). The considerable settlement mound had been recorded as a probable broch. Vertical tapestry excavation of 80m of the eroding cliff-section demonstrated the complexity of the mound, underlining once again the likelihood that many mound-sites are multi-period (Fig. 5.29-30).[3] It is very rare in Orkney for a broch-site to be re-used for Viking-Late Norse settlement, but this mound contained broch-like (so possibly a large round-house) and associated extra-mural structures, overlain by Viking-Late Norse buildings sealed by nineteenth-century middens.[4] The excavations recorded 'a complicated sequence of building refurbishment and modification' with episodes of levelling infill, wall-reuse and probably purposeful demolition (Dockrill and Bond 2010, 14). The settlement of the mound seems to have shifted slightly to the east/south-east sometime after the Iron Age and archaeological remains spread beyond the ground-level limits of the mound (ibid. 15).

Fig. 5.29: the erosion section at Brough before excavation, from Dockrill and Bond 2010, 16.

[3] The "tapestry" excavation proceeded in two zones and uncovered: in Zone A to the west, wide broch-like roundhouse walls, flagged surfaces orthostats and other stretches of less-massive wall of some structural complexity and more than one phase; and in Zone C (which included limited open-area excavation) later, possibly Viking-Late Norse and medieval/post-medieval, walling and midden.

[4] http://www.nabohome.org/cgi-bin/explore.pl?seq=141 accessed last June 2015; Canmore ID2275; the deserted farm of Brough, another casualty of 1845 clearance, sits on the summit of the mound: thus the mound continued to be settled until relatively recently.

Fig. 5.30: Area C, including possible Viking-Late Norse structures, after excavation from Dockrill and Bond 2010, 23.

<u>The Wirk</u> (HY3785 30192)

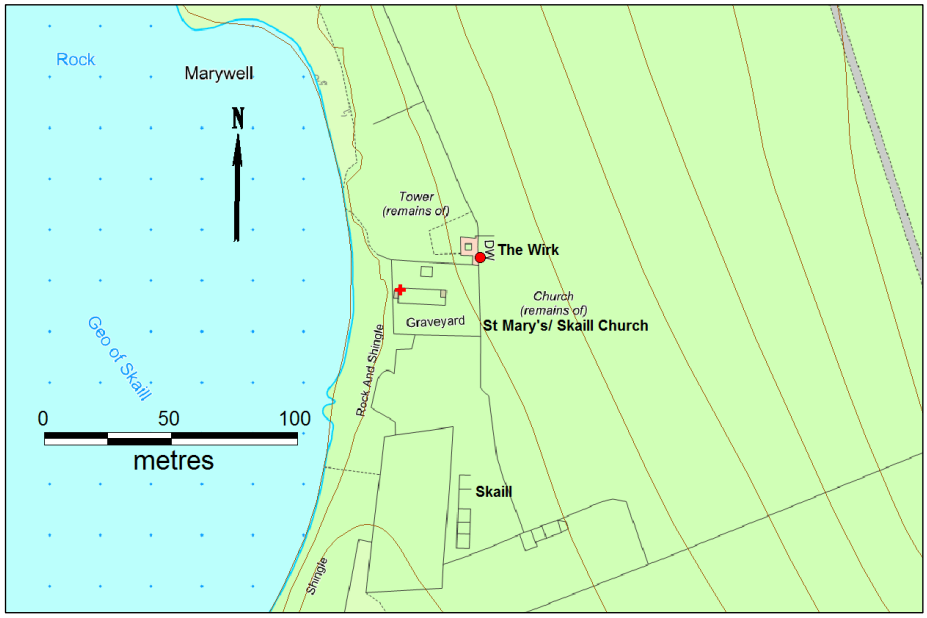


Fig. 5.31: The Wirk, Skaill church and Skaill Farm.

It is difficult to interpret the investigations so far conducted of The Wirk (Fig. 5.31). Just outside the north-east corner of the churchyard wall of St Mary's/Skaill church [5] and against a stone dyke are the ruins of a near square, well-constructed tower-like structure (Fig. 5.33). The building was documented in AD1556 as a 'fortalice' and has often been compared with Cubbie Roo's Castle on Wyre (Lamb 1982, 53). In 1928/9 J. Storer Clouston subjected the site to minor excavations, briefly reported on in his 1931 book *Early Norse Castles* and assumed a twelfth-century date for its construction and an

[5] The post-Reformation church probably replaced an earlier chapel/church and was abandoned as the parish church in 1815 as the area declined in importance: Canmore ID2281.

ecclesiastical character.[6] Christopher Lowe later re-surveyed the church and The Wirk and noted the tower's latrine drain and chute, unlikely in a church tower (*DES* 1984, 20-1).

Fig. 5.32: The Wirk mound looking ENE from the graveyard of St Mary's church, on a very wet and windy Orkney day.

It seems reasonable to assume The Wirk is twelfth-century and it has similarities in siting and character to the towers at Tuquoy (Westray) and Skaill (Deerness), but the real difficulty is context: so little is known about the structural remains that lie to west and east. The Wirk is on a notable mound well over 100m in diameter: the lumpy ground to the west suggests sub-surface remains (author survey 2014); Clouston confirmed there were considerable and well-built building foundations to the east. There may, as at Tuquoy (Westray), be an earlier Viking-Late Norse longhouse on the site, the tower being part of a later hall. The skaill place-name strengthens the hypothesis that this may be another major, multi-phase, possibly multi-focal Viking-Late Norse settlement site. Indeed, in a test-pit excavation conducted during July 2015, within the ruined enclosure of Skaill farm, a dry-stone wall was discovered on a different alignment to the later farm buildings associated with a fragment of (possibly Norwegian) steatite (Ingrid Mainland, personal comment 2015). The mounded Wirk site and Skaill farm are ripe for further investigation, including geophysics, topographical survey and further evaluation excavation.

[6] Clouston interpreted The Wirk as the tower of a never-completed church. Sarah Jane Grieve (Gibbon) also discussed The Wirk in her unpublished 1999 thesis: she suggested that the Westness site to the south was Sigurd's *skáli* and that The Wirk probably was in use after the longhouse, from the later-twelfth century, perhaps by Sigurd's descendants (1999, 43). Gibbon also compared The Wirk to the tower-like rooms at Skaill (Deerness) and Tuquoy (Westray) referring to them a 'strong rooms' necessary in an unsettled time (ibid. 88) and part of "defensive farmsteads". The problem is we know so little of the rest of the site at The Wirk, but also that there are probably more pre-twelfth-century Viking-Late Norse sites along the coast.

Fig. 5.33: The Wirk remains looking south-west to the ruins of the church.

<u>The Knowe of Swandro: a multi-period burial and settlement mound</u> (HY3753 2966)

Fig. 5.34: the Neolithic Chambered Cairn under excavation just west of the Knowe of Swandro: looking near south. The "Norse Hall" would have been just left of centre, under the grass.

Excavations begun in 2010 by the Orkney Gateway to the Atlantic Project at the Knowe of Swandro south of the Wirk are continuing: the site is extremely complex and interpretation is still developing and changing (Dockrill and Bond 2010; *NABO* website and links, see Fn. 4). Extra challenges to the excavation team have been posed by ongoing erosion of the coast-edge site, which has created a series of archaeological terraces, from a Neolithic chambered cairn and Iron Age settlement partially within

the storm beach, up to the eroding section and into Pictish and Viking-Late Norse layers within the mound itself. Structures and middens have been both undercut and impacted by material upcast by the sea, including heavy stone. Impressive archaeological work has already disentangled elements of this long sequence.[7] The final publication of this important site will add hugely to our understanding of this area.

Fig. 5.35: the Pictish structures at Swandro in 2015 looking south-east. The Viking-Late Norse houses are above and just inland to the left.

The core of the Knowe of Swandro sits a bare 300m north-west of the famous but largely unpublished "Great Norse Hall" at Westness (discussed further below; Kaland 1973 and1993; Sellevold 1999). The mound is not high but could be as much as 100m in diameter so encompassing the Norse site (Fig. 5.36). Steve Dockrill noted that the Pictish house investigated in 2015 had been deliberately infilled with midden and, as the Viking-Late Norse site was above and just inland, the infilling and levelling-up of the Pictish site may well have been done by Viking-Late Norse builders (Fig. 5.35; quoted in *The Orcadian*, 16 July 2015, 6). Further investigations of the upper and inland Viking-Late Norse layers at Swandro, which lie within the mound area and link with the "Westness" site, would shed further light on the work done now decades ago on the longhouse and its ancillary buildings. It is already obvious

[7] Excavation has focused on the remains within the storm beach as they are under constant threat of erosion. Several phases of prehistoric building were found partially preserved within the beach. These were initially thought to be mostly Iron Age, but it became increasingly clear that the beach archaeology and the linked Knowe of Swandro comprised an extensive multi-period site. Viking-Late Norse deposits were found in the upper erosion terrace adjacent to the wave-cut cliff. The earliest remains in the beach – creating the broch-like curved walling – turned out to be a Neolithic Chambered Cairn www.nabohome.org/fieldschools/Rousay A Viking sword and shield boss found during an antiquarian investigation in 1826 may have come from the Knowe of Swandro (Anderson 1888, 45-7); as may a Viking silver ring (see RCAHMS 1946).

that the Viking-Late Norse site is much greater in extent than suggested by the Kaland excavations, and undoubtedly surmounts a multi-period mound. Study of the scant record available of the earlier work suggests more than one phase of settlement at Westness; even the visible remains support this idea (Kaland 1993; Viking 37; author visit 2015). However, detailed scrutiny of the surviving, unpublished details of the Kaland and earlier (by Radford in the 1950-60s) investigations is urgently needed.

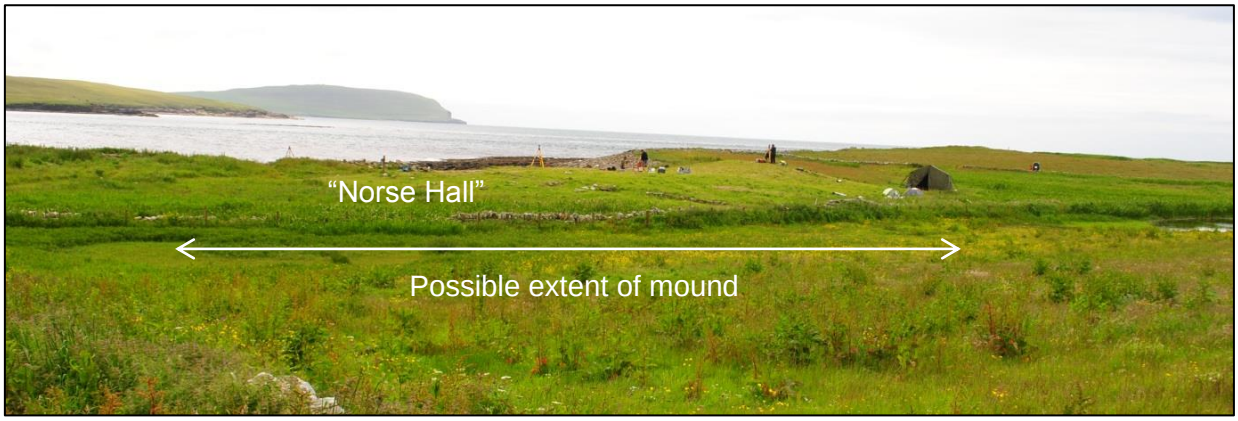


Fig. 5.36: the mound at Swandro, looking near west across to Eynhallow and Mainland.

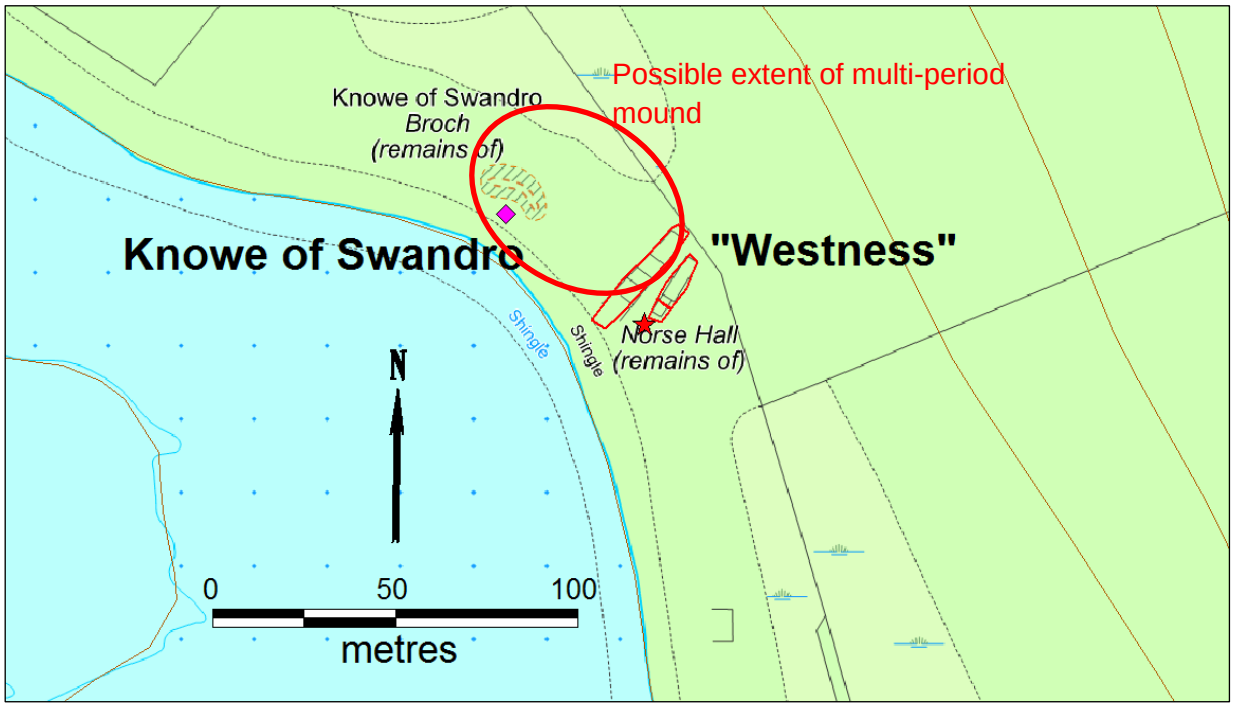


Fig. 5.37: the multi-period mound at Swandro.

<u>Westness Hall and ancillary buildings</u> (HY3754 2964)

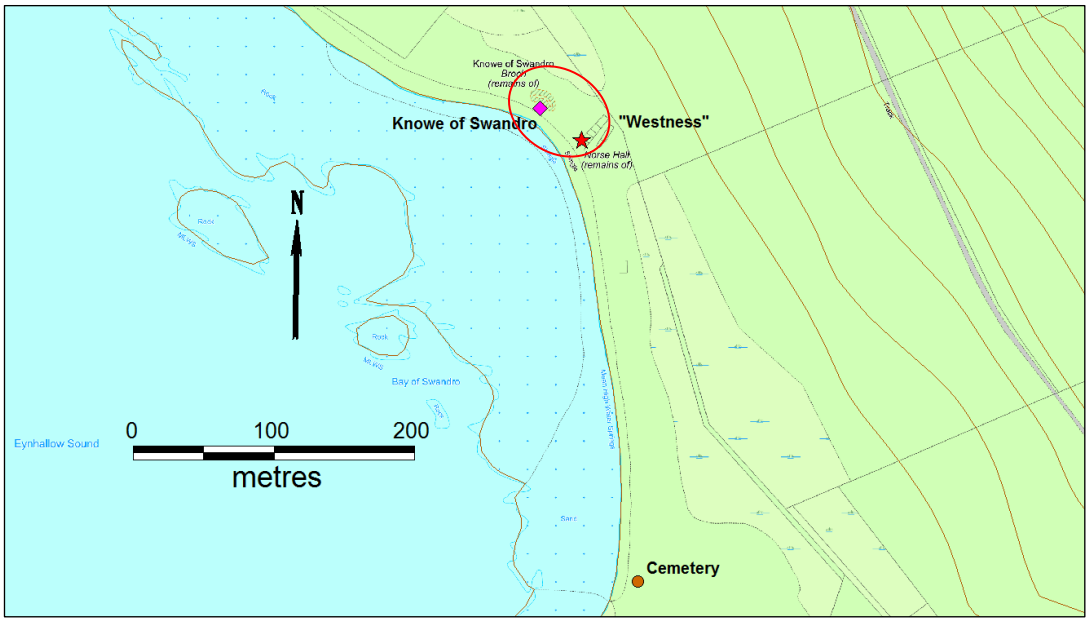


Fig. 5.38: the Viking-Late Norse settlement and burial evidence.

The "Norse House" at Westness was investigated by C. A. R. Radford in the 1950s and 1960s (Dockrill and Bond 2010, 27; Radford 1957, 36; 1962, 175). A report in *Medieval Archaeology* for 1964 seems to elide discussion of the Westness site with the building at The Wirk, describing a 'Norse Great Hall' 100 feet (c. 30m) in length which having been 'uncovered for several years' had finally been planned in 1962 (Wilson and Hurst 1964, 240).[8] The report of the Hall concludes by describing The Wirk as 'adjacent': the sites are in fact 600km apart as the crow flies. (An Ordnance Survey visit in the late 1960s noted the hall ruins were on a sandy beach, also suggesting Westness was being described: Canmore ID2167.) Then in the1970s Sigrid Kaland conducted several seasons of excavation at "Westness". These have not been published in full.[9]

[8] The original stage of the structures near The Wirk was described briefly as a long hall of stone-faced walls with turf core running up the slope behind the storm beach, which resembled 'the two great halls at Birsay'. A second stage was also planned: a substantial rectangular building with a possible tower at one end (D. M. Wilson and D. G. Hurst, 1964, 240). An OS visit in 1967 described the site as situated on a *sandy* storm beach near the shore: 'the visible remains are at least 18.0m long by 4.8m wide, between walls 1.0-1.3m thick and up to 0.8m high' (Canmore ID2167).

[9] The only details available are in an article written for an exhibition at the Tankerness museum in Kirkwall and reprinted in Batey et al. 1993, 308-317, an article in *Viking 37* (Kaland 1973, 77-102) and Sellevold's discussion of the skeletal remains from the cemetery at Moa Ness 300km near south of the hall complex (1999).

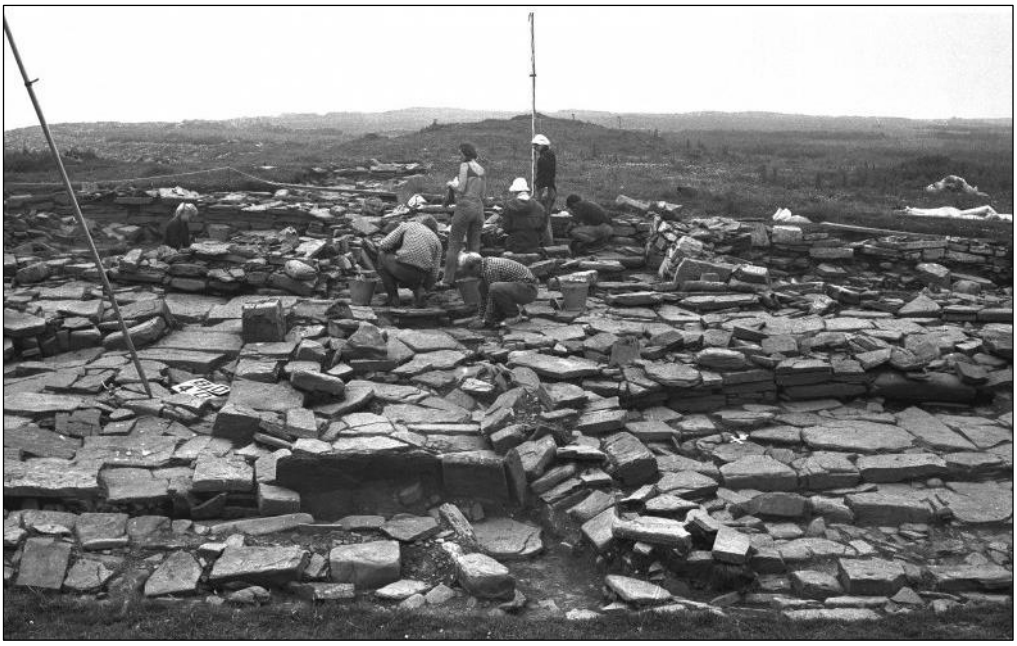


Fig. 5.39: Westness under excavation in the 1970s looking near east © RCAHMS canmore.org.uk/collection/450809.

Excavations uncovered a longhouse aligned NE-SW with adjacent and parallel outbuildings just to the south-east, linked by a paved area or 'farmyard' (Figs 5.39-40; Kaland 1973). The longhouse was over 30m long and divided into three, with a smaller central 'room' (possibly a "lobby" between domestic and workshop/animal ends): the up-slope end was 15m long with side-benches and a central fireplace; the downslope, southern "room" was slightly shorter with a central paved 'pathway' (possibly also a drain as at East Mound, Bay of Skaill).[10] There were indications of 'rebuilding during its time of use' (Kaland 1993, 308); in particular within the central room, where there were wall remains of several phases (Kaland 1973, 85-8). The excavations clearly did not uncover the entire complex: wall remains were found west of the longhouse associated with slag and rivets, suggesting a metal-working area (ibid.) or perhaps the internal wooden structure of another building. The ongoing Swandro investigations underline that what Kaland uncovered was only part of a larger and long-lived site.

Finds from House 1 were domestic: knives, steatite fragments, bone combs and pins; animal bone and carbonised seeds. Those seeds included barley, more unusually rye, and flax; the people living there had been hunting seabirds and moorland fowl, fishing mainly for cod and ling, as well as eating whale, seal,

[10] Extra information in the *Viking* article suggests a possible fourth room south-west of the lower hall-end (Kaland 1973, 85-88). It is impossible to tell whether this might be a contemporary extension to the longhouse or the remains of an earlier phase of building.

deer and otter. The two ancillary buildings were apparently 'built together' although it might be suggested one was an extension in a different phase of the other (Kaland 1973; Kaland 1993, 309). Bow-sided House 2 to the north was 15m long, with a central paved 'sunken pathway' (another drain perhaps) and either benches or orthostatic chock-stones to either side, and interpreted as a cow byre. The small building to the south-west sounds very like the last ancillary building on East Mound: it was 5m^2, fully paved and discussed as a sheep-byre. These structures as described sound, by analogy, as if they might perhaps be the final configuration in a longer sequence of building on the site.[11]

Fig. 5.40: Westness left under excavation ©RCAHMS canmore.org.uk/collection/453292; and right the site in 2015, both looking north-east.

The open corner of Swandro Bay on which the building complex is sited is relatively sandy and Kaland's team also discovered a possible boat naust on the south-east coast of Moa Ness (Canmore ID2184). This type of bay-corner location – undeniably exposed but with excellent visibility – is also frequently-selected for establishing Viking-Late Norse settlement mound sites.

[11] The material discovered in side "drains" in the sheep byre sounded very much like midden-type material that had either been part of later infilling or into which the channels had been dug (Kaland 1973, 99).

<u>The Cemetery</u>: (HY3759 2932)

Fig. 5.41: looking south-west towards Moa Ness and the site of the cemetery on the western (right in photo) side of the Ness. The hall site is on the coast to the right.

Kaland also excavated a large area of the Pictish-Viking Late Norse cemetery on Moa Ness (Fig. 5.41). Details of the cemetery excavation are not available, although there are photos of some of the 32 excavated graves, along with Sellevold's study of the skeletal remains and 21 radiocarbon dates (Ashmore 2003a, 37; Barrett et al. 2000a, 12-15; Kaland 1993; Sellevold 1999; Canmore ID2204). The cemetery appears to have been in use from the Pictish to Viking-Late Norse period without any reported reuse, overlying or intercutting of grave-sites. 11 of the dated burials are 'definitely pre-Norse' from around the early-seventh century and west-east aligned with no grave-goods (Ashmore 2003a, 37); the remainder (apart from two outliers) fall within the later-eighth to mid-tenth centuries and included accompanied cist-burials, crouched and extended inhumations and two rich boat burials with weapons and jewellery. The cemetery also contained infants and was not apparently composed of different zones of burial. It seemed to serve a community and later burials respected earlier, presumably marked, graves even if they were of a different cultural tradition. It is interesting, as Ashmore notes (2003a, 48), that across Orkney there appears to have been such a range of different cemetery – or grouped burial – designs in the Viking-Late Norse period: another indication of the complexity and variety of social arrangements between and even within the various islands. The Moa Ness cemetery cannot be tied directly with the longhouse on the coast to the north and so raises two questions: were there other

Pictish and or Viking-Late Norse settlements close by, and was a Pictish or later chapel linked to the cemetery and to the hall complex and/or another settlement? [12]

Conclusion

Even without adding any further undiscovered Viking-Late Norse settlement mounds, Swandro/ Westness and the cemetery were obviously elements in a well-settled and significant Viking-Late Norse coastal landscape. During the Viking-Late Norse period there were lived-on and growing settlement mounds at South Howe, at Swandro/Westness and almost certainly at The Wirk/Skaill. All those settlement mounds on the Westside coast-edge would have visually dominated the sea-way into the heart of the islands. There may have been a relationship with the early monastic settlement on the island of Eynhallow, towards which the sites looked (Fig. 5.25). This stretch of coastline does seem to have been particularly important in the Viking-Late Norse centuries: as at Birsay Bay the communities on Westside were perhaps more deliberately targeting previous Iron Age settlement, including possibly and unusually a broch, to more emphatically establish authority in a politically strategic area.

[12] In 1997 Graeme Wilson and Hazel Moore conducted c. 1ha of geophysical survey adjacent to the cemetery at Westness, followed by minor trial trenching to investigate archaeological deposits revealed by coastal erosion and to investigate the limits of the cemetery and the possibility of related structures. The erosion deposits were superficial; nothing significant was discovered in the geophysics and only one trench at the south-western tip of the Ness uncovered a disturbed burial, possibly Viking-Late Norse: Canmore ID2204 (23/6/2015).

Skaill-area 2: Saviskaill and Langskaill, Saviskaill Bay

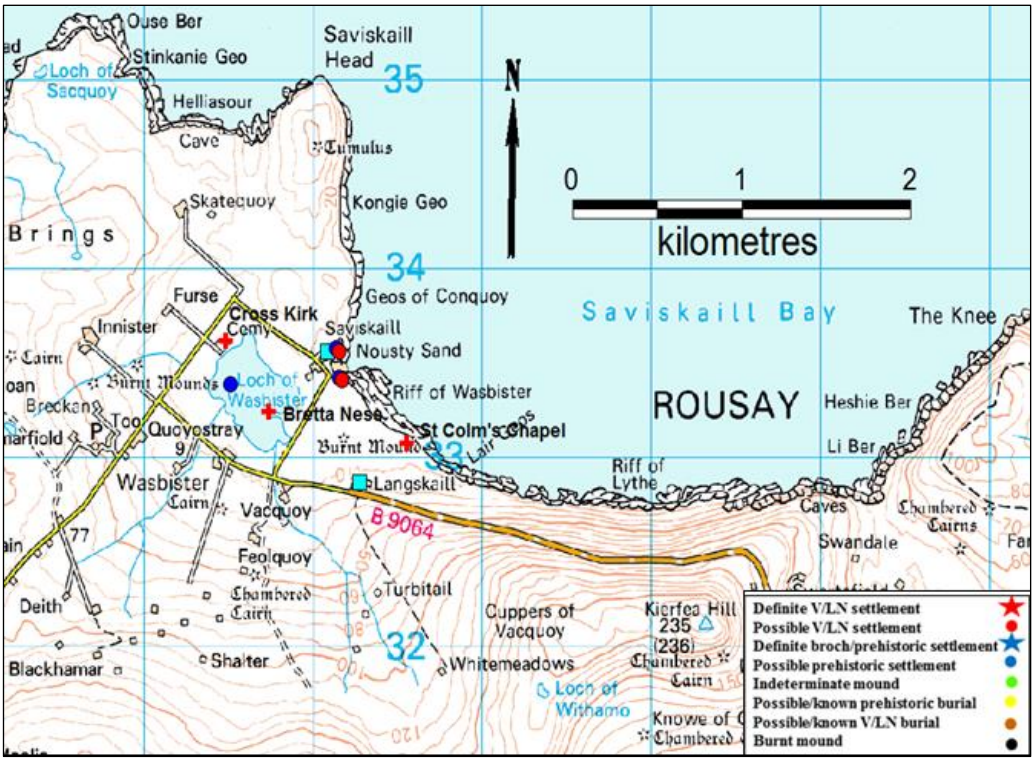


Fig. 5.42: mounds, chapels and skaill-sites, Saviskaill Bay; skaill place-names marked with blue squares.

The west end of the wide and open Saviskaill Bay has two skaill-names: Langskaill 300m south-west of the beach and Saviskaill perched above the low eroding coastal section in the western corner of the Bay (Fig. 5.42). The beach is sandy with a cobble storm-beach, rising to form a low eroding cliff-section north of the burn flowing into Nousty Sand (a good spot for beaching boats; Fig 5.45). To the east a wave-cut platform leads toward the steeper coastline of the Riff of Lythe. A relatively flat area immediately surrounds the small Loch of Wasbister, but the land to the east and south rises dramatically, with a slightly lower headland to the west. Saviskaill Farm sprawls either side of the road just west of the burn, across a spread mound at 5mOD, which is most apparent from the beach. Langskaill overlooks Saviskaill, the loch, beach and bay from the end of a slight ridge at the base of Kierfea Hill at between 15-20mOD. Again the farm is on a spread but considerable mound (Fig. 5.44). On the earliest Ordnance Survey maps both these modern skaill-farms were plotted as large complexes.

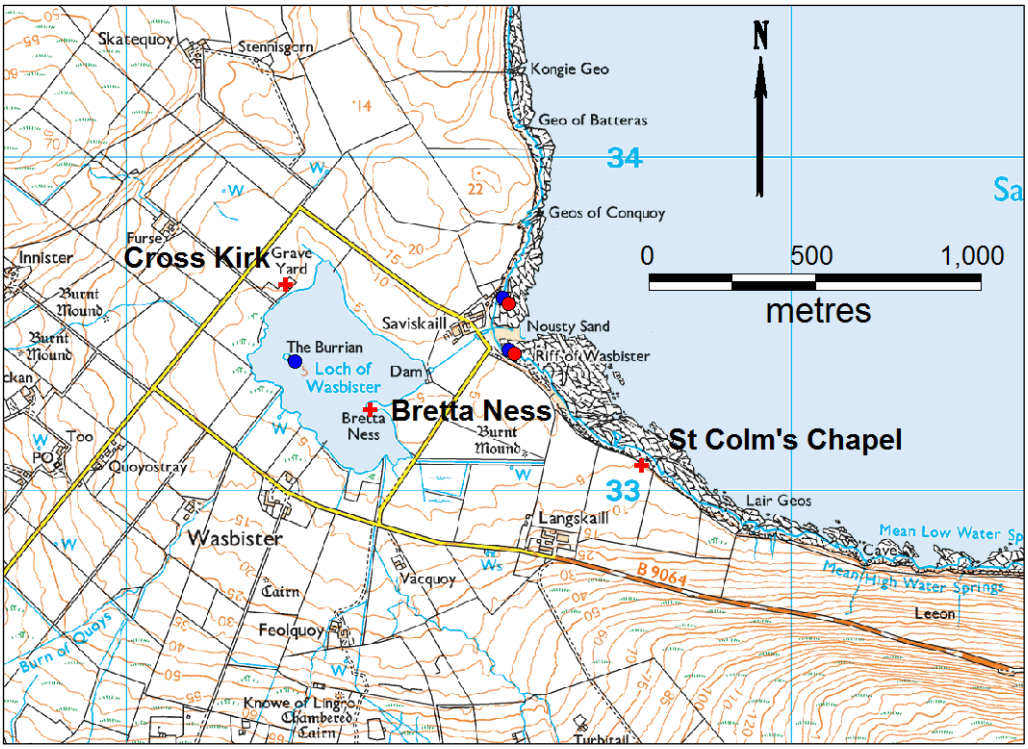


Fig. 5.43: detail of chapels and mounds around the west end of Saviskaill Bay, key as 5.42.

This area of Rousay has seen little investigation and none of Viking-Late Norse archaeology. There are however three, reputedly four, chapel-sites in a Sanday-like cluster (see pp. 285-7; Fig. 5.43): St Colm's chapel right on the shore close to Langskaill (Canmore ID2706), of which nothing is visible and only the name known; the possible chapel at Bretta Ness (Canmore ID2277); the broch/possible chapel-site on the tiny loch-island of the Burrian (Canmore ID273917), and Cross Kirk just by the loch, which has also disappeared, but of which the graveyard survives.

Fig. 5.44: looking WNW across the farm of Langskaill to the Loch of Wasbister with Bretta Ness and the Burrian clearly visible in the Loch.

The site at Bretta Ness is a ‘largely man-made’ peninsula: a mound about 30m in diameter constructed of occupation debris and building remains. These deposits are sealed with stone ‘platforms’ below rubble (Marwick 1924, 17; *DES* 1984, 20). Pictish and Iron Age finds have been discovered on the site and while some wall-footings may be ecclesiastical, the curved walls at the western end were interpreted as possibly Iron Age. This may be a broch/multi-period site. The Burrian was surveyed during the Crannog survey (*DES* 5 2004, 93-4; Fig. 5.44), which recorded an artificial island-edge incorporating walling and revetments, walled enclosures on the island and a substantial causeway running to the western shore. On the higher ground around the skaill-sites are a scatter of burnt mounds and burial mounds.

Fig. 5.45: looking south from the wave-cut platform in Saviskaill Bay towards Nousty Sand and the burn from the Loch of Wasbister, just south-east of the farm.

Other archaeology is visible in the eroding coast-line north of Saviskaill (Fig. 5.46-47; author survey 2010). The section is over 100m long with stretches of walling, other possible structural remains and midden-type material visible under more recent farm walls on the top of the cliff.

Fig. 5.46: the eroding cliff-section running north from Saviskaill farm, looking north.

It is conceivable that the present farm is only the last phase of a multi-period settlement mound, but much work needs to be done to understand the Viking-Late Norse settlement in this area. The erosion section has not been fully recorded: geophysics across the land around Saviskaill, north of Langskaill and north-east towards the supposed site of St Colm's, might produce interesting results. A great deal was discovered about sites on Marwick Bay by combining topographical survey with geophysics and vertical excavation of an eroding coast-edge site (pp. 108 ff.).

Fig. 5.47: detail of the southern end of the long erosion section running from Saviskaill Farm: the photo captures a metre high stretch.

Summary: settlement in Rousay

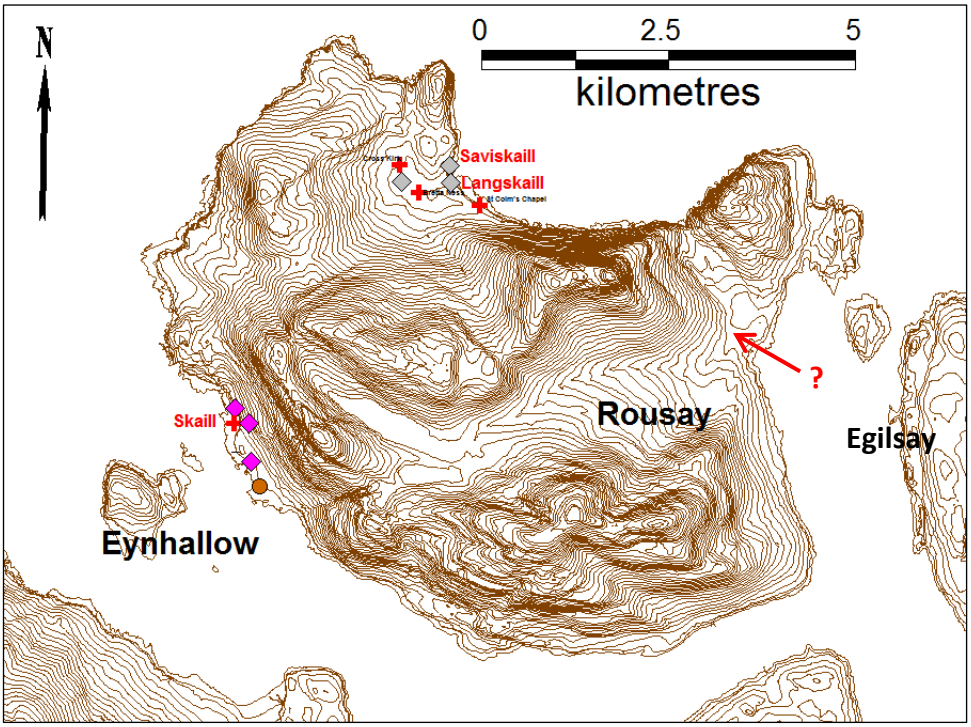


Fig. 5.48: pink diamonds, known/probable settlement mounds with Viking-Late Norse phases; grey diamonds possible ones.

Research into the Viking-Late Norse archaeology of Rousay has been over-shadowed by the wealth of prehistoric sites. This review has demonstrated that there is a great deal of potential for further work. As yet no Viking-Late Norse archaeology has been discovered on the flatter land on the island's east coast (marked with a red arrow on Fig. 5.48), which overlooks the skaill-area on Egilsay (see Gazetteer of skaill-sites) and might be expected to have been settled. The Westside coast was clearly important, but more attention needs to be focused on the Viking-Late Norse archaeology; it is probable that significant Viking-Late Norse remains could also be discovered in the Langskaill-Saviskaill area, where the coast-edge, bay-arm settlement mound at Saviskaill may have been linked, in that period, with the slightly inland Langskaill farm.

Chapter Six (1): archaeological mounds on Westray

This chapter looks at the distribution of archaeological mounds on Westray in their landscape context. The skaill-areas and mound-rich bays will be surveyed in more detail by dividing the island into five areas.[1] In each area the mounds will be examined in relation to topography, coastline and drift geology, including noting the presence of windblown sand, good landing places and harbourage. The mounds themselves will be categorised as before, and considered in relation to one another, skaill-names and chapels. Finally the excavated Viking-Late Norse sites of Tuquoy, Langskaill and Quoygrew will be reanalysed as settlement mounds, looking in particular at mound-related building techniques.

Introduction

In the Viking-Late Norse period Westray was a strategic first landing point on the sea-route from Shetland; a stepping stone to the rest of the Orkney Islands, and west to the Western Isles and Irish Sea route. Pierowall harbour is one of the best natural harbours in Orkney and many other bays around Westray's coast provide excellent landing places. The hills in the west served as useful navigation aids. Amongst other things this survey considers how the Viking-Late Norse archaeology of Westray seems to reflect that strategic importance. Yet in his archaeological survey of 1983 Raymond Lamb considered Westray lacking in settlement mounds exhibiting only '… a partial development of farm mounds', although the stone-work and midden revealed in Westray's sea-eroded mounds clearly '… resulted from the repeated replacement of structures after the manner of oriental tells' (1983, 7). Why Lamb regarded the many, and often large, archaeological mounds of Westray as "partial developments" is not explained. It might simply be that the type-site farm-mounds of Sanday are both more prominent in a flatter landscape and at that time were better understood (see p. 282). Also many of the Sanday mounds, rather than abandoned by settlement, are surmounted by modern working farms like the Norwegian examples (Lamb 1980).

[1] This division was driven by the distribution of mounds but broadly follows some of the modern township divisions: see Fig. 6.03.

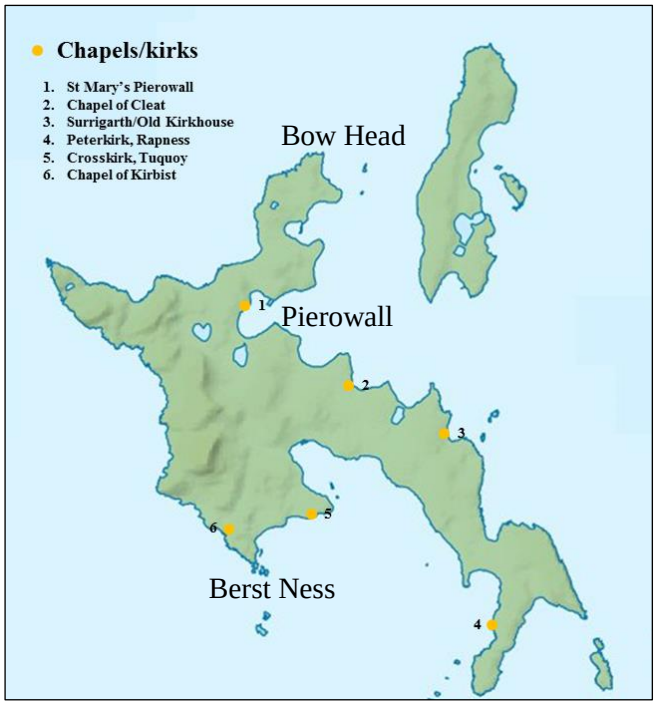


Fig. 6.01: the chapels of Westray: only 1 and 5 are securely identified.

Yet Westray had its own distinctiveness. Lamb mused there was something '…decidedly odd about Westray' – he implies a distinctive Norse settlement pattern (1983, 8; 1993, 79); partly because it seemed to have so few chapels, perhaps again in comparison to Sanday (Fig. 6.01; see pp. 285 ff.).[2] The townships of Westray are relatively large, and combined with the small number of chapels this might hint at large early estates. The island's surmised skat (land-tax) value of 13 urislands was not particularly high and both Lamb and Hugh Marwick deduce, from admittedly incomplete rental evidence and the large townships, that by the Later Norse period much land was in earldom or ecclesiastical hands (Marwick 1952, 31). This suggests Westray was particularly attractive to men of power. Despite Lamb's description Westray also has a rich inventory of over 80 archaeological mounds (Table 6.01), 16 of which have known/possible Viking-Late Norse elements. The Viking-Late Norse archaeology is sufficiently well-distributed to propose a settlement pattern.

[2] Lamb records only six chapels/churches on Westray (1993, 79): Chapel of Cleat, Chapel of Kirbist and a chapel near Surrigarth/Old Kirkhouse (all now unlocated: OSMR 00704, 00722 and 00717 respectively); Peterkirk (Rapness) (OSMR 00724); Crosskirk (Tuquoy) (OSMR 00710) and St Mary's (Pierowall). As Chapter Seven demonstrates Sanday may not have as many chapels as Lamb thought, see pp. 285ff.

Geology and Topography

Westray is the furthest north-west of the Orkney Islands, stretching c. 17km north-west to south-east, and 11km from Bow Head in the north to Berst Ness in the south (Fig. 6.01). Its hilly areas render it more widely visible from the sea than Sanday. The solid geology is uniformly Upper Stromness Flagstone, with superficial deposits of glacial till, mainly in the south-east, and of windblown sand. Westray is cloaked by three extensive areas of windblown sand (Fig. 6.02). These form sandy beaches often with links behind and drifts of sand further inland. In the township of Midbea, Mae Sand beach and links are situated south of the Ness of Tuquoy, with a shorter beach/links north-east of the Bay; the Bay of Skaill, on the east coast of the northern peninsula of Aikerness township, has extensive links and a long beach. In Rack Wick Township, Grobust beach and the Links of Noltland are merged by drifts of sand with the links around Pierowall Bay to the south-east. From Pierowall Bay down the eastern coast run a series of small sandy bays, not dissimilar to those along the coast of north-west Mainland. From north to south these are: Brough Bay, the Bay of Cleat, the Bay of Swartmill and Skel Wick Bay. The southern peninsula, Rapness, includes two sandy bays: the Bay of Tafts on the west coast, with Taftend Beach to the north-west, both with links; and the smaller Sands of Woo in the south.

The west and east of the island have markedly different topographies. The north, east and south-east are low-lying, sandy and relatively flat, with very few areas over 30mOD. The west in contrast is noticeably hilly by Orcadian standards, from North Hill on Noup Head at 104m OD, getting gradually higher southwards from Couter's Hill, Knucker Hill and Gallo Hill to Fitty Hill at 169mOD. This western coastline is edged by precipitous sea-cliffs, averaging around 40m high but rising to over 60m at North Hill. The recorded mound archaeology of the hilly west is also distinctive: dominated by chambered cairns, prehistoric burial mounds and smaller, indeterminate inland mounds.

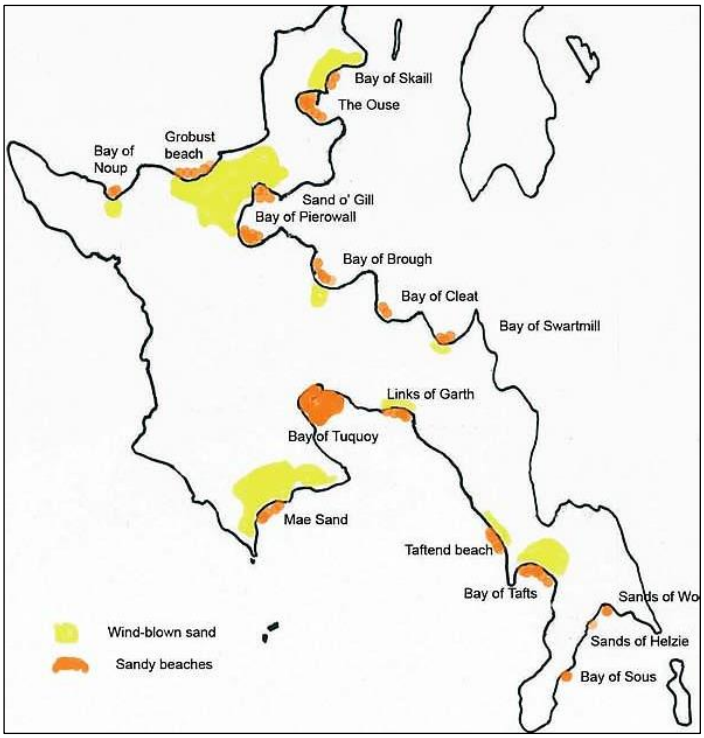


Fig. 6.02: windblown sand links and beaches.

Distribution of Mounds and Settlement in Westray: Table 6.01

Classification challenges

A range of sources have been used to compile a table of known (or recently disappeared) mound sites in Westray. Table 6.01 records 86 archaeological, or possibly archaeological, mound sites; one or two of the entries encompass more than one mound and a few are for mounds now disappeared. Relatively few have been soundly dated and even fewer excavated. The vast majority have been classified by morphology, and/or the visible presence of structural stone, midden and/or burnt stone, and occasionally by artefacts.

There are, however, landscape aspects to aid mound classification on Westray. There are two broad categories linked to the island's contrasting topographies and to mound size: inland and smaller, mostly coastal and larger. The smaller (from c. 5m in diameter, with most between 8-18m) and inland, or at any rate non-coastal, mounds tend to be classified as burial mounds, including the larger chambered cairns; burnt mounds; or "indeterminate". In particular the chain of hills in the west is dominated by mounds interpreted as prehistoric burial mounds. The larger mounds (30-100m in

diameter) interpreted as/known to be settlement mounds tend to cluster in the areas of windblown sand and/or close to the coast, often appearing in coastal erosion exposures, for example: on the links in the Bay of Skaill, Pierowall, North Links, and the links of Noltland; Mae Sand and the Bay of Tuquoy, and the Bay of Tafts. The Westray Skaill (no. 86) and one of the Langskaill sites (no. 15) are interesting because these two probable Viking-Late Norse settlement mounds, like the Langskaill in Marwick and probable Langskaills in Birsay Bay and the Bay of Skaill (Mainland), are in prominent locations slightly inland from windblown sand coasts: Skaill on a mound at17mOD and Langskaill on a crest at c. 27mOD. The term "inland" on the narrow peninsulas that together make the lobster-like island of Westray is however relative: Skaill is only 500m from the beach of the Bay of Skaill; Langskaill the same distance from the sands of Mae Sand and both look over their respective bays.

Areas of Investigation

The clustering of mounds and Viking-Late Norse archaeology produces five areas of particular interest:

1. the bays of Cleat and Skel Wick on the east coast; 2. the Bay of Tafts and the Sands of Woo in the far south; 3. the Bay of Skaill in the north; 4. Mae Sand and the Bay of Tuquoy in the south-west; and 5. Rackwick Bay and the Bay of Pierowall (Fig. 6.03).

The drift geology of each of these areas is dominated by windblown sand. Except the Bay of Skaill, all are associated with early chapel/kirk sites, and four have skaill place-names; all have known/probable Iron Age as well as Viking-Late Norse archaeology.

These five areas of Viking-Late Norse settlement will be discussed below: the three without excavated remains and then Midbea (4) and Rack Wick (5), where there have been excavations. The hilly west, without Viking-Late Norse archaeology, will be covered briefly first.

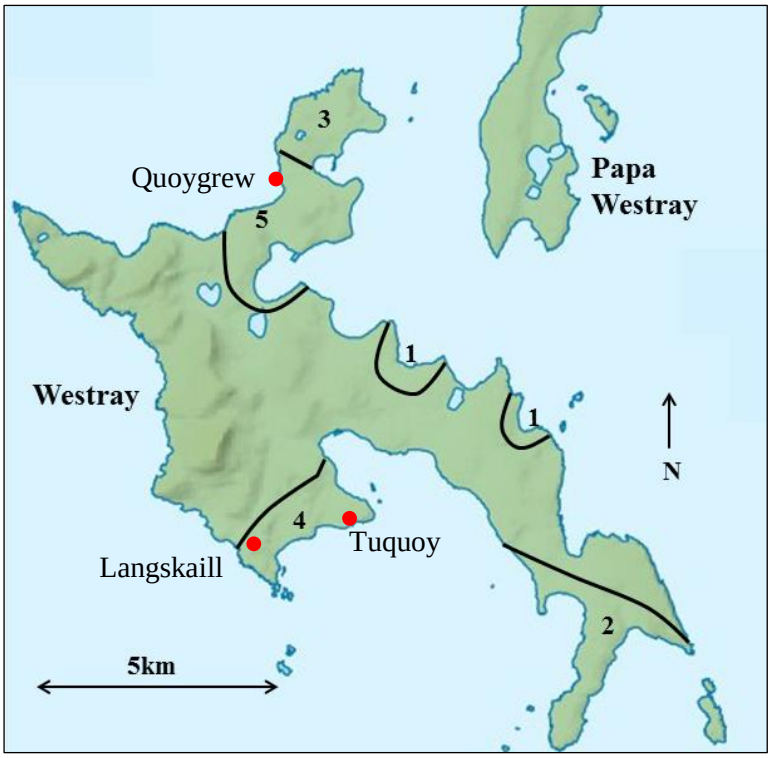


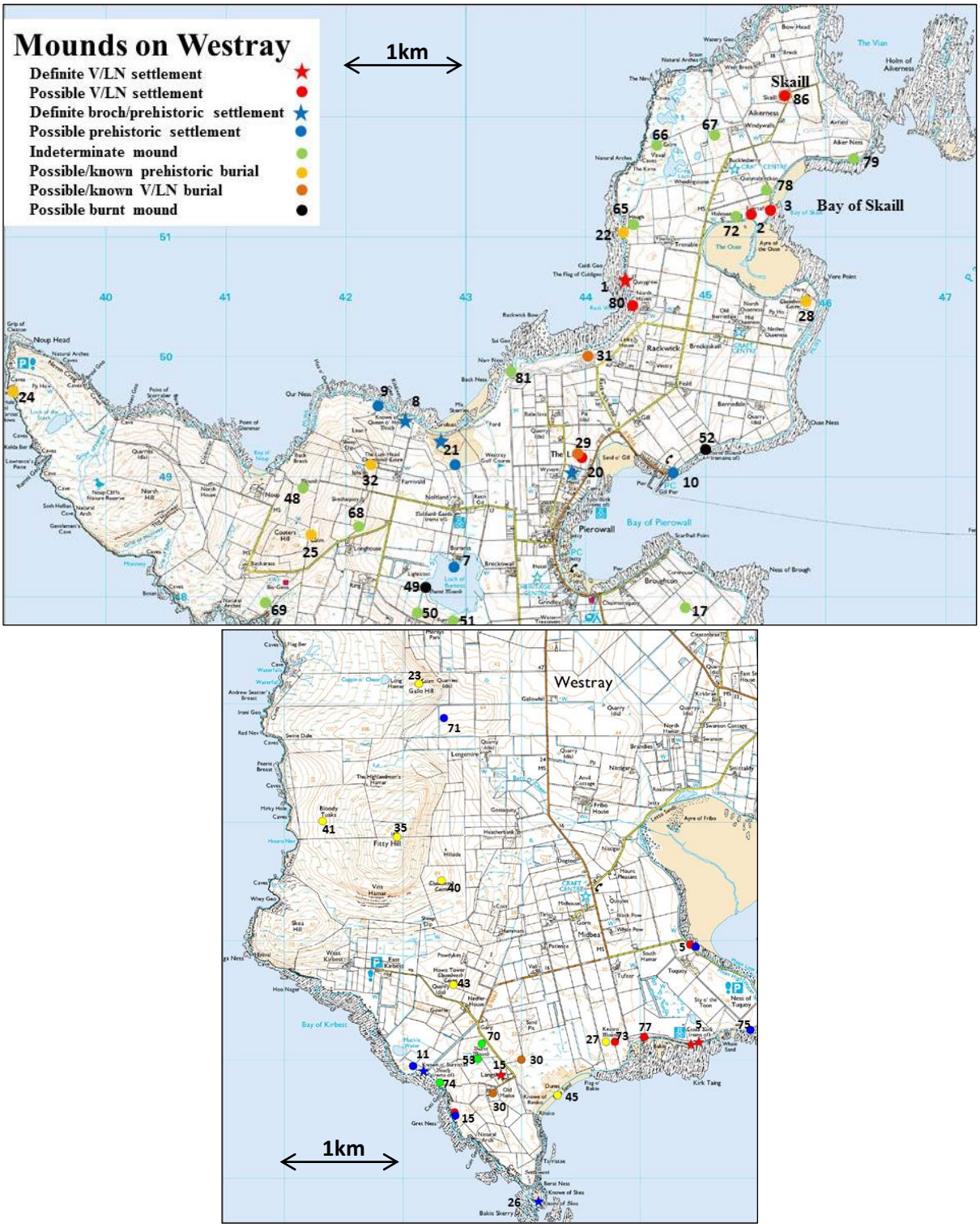
Fig 6.03: the areas of interest

The Hilly West: Figs 6.04 and 6.05

The west of Westray has many known/probable prehistoric burial sites (Table 6.01: nos 23- 25, 32, 35, 40-41 and 43); indeterminate mounds (nos 48, 50-51, 68-69) and known/possible prehistoric settlement sites (nos 7-9, and 71). There are no known skaill-names and only drifts of windblown sand. None of the prehistoric burial sites has been excavated: the mounds still traceable are on summits or false crests and range in size from 5m diameter, to the larger mounds interpreted as chambered cairns at 16-18m (nos 32, 35 and 40, and 43). Orthostatic stone slabs recorded at most of those sites neither contradict nor confirm that interpretation (Davidson and Henshall 1989).

Four of the settlement mounds are known/possible broch sites. Lengemire (no. 71) is inland on a slope, a more unusual broch location: Raymond Lamb recorded slab-built compartments and orthostatic dividing stones in 1987 and suggested it was a prehistoric settlement site (Canmore ID 306448). In the north of the area Burness (no.7) is identified only by typology and tradition.[3]

[3] This site is near the inland loch of Burness but is 'too amorphous to classify' (OSMR 00687).



Figs 6.04-6.05: archaeological mounds in the west.

Iron Age pottery was found at the coastal site of Queena Howe (no. 8); structural ruins characteristic of a broch showed in the erosion exposure. Structural elements were seen in the 1980s at Hoorness (no. 9) to the north-west: this may be part of the same Iron Age settlement. Although neither can be conclusively identified, the area was clearly a focus for prehistoric settlement (MacKie 2000), and is

located just west of the Links of Noltland, where recent excavation has revealed a rich Neolithic and Bronze Age landscape dating from the early-third millennium to the mid-second millennium BC. The extensive remains, spread over c. four hectares, include over twenty stone-walled buildings, large managed middens, craft-working areas, butchery sites and a large Bronze Age cemetery surrounded by contemporary field systems (Moore and Wilson 2013).[4] The nearest certain Viking-Late Norse settlement is at Quoygrew over two kilometres to the north-east. But the mound-sites of Queena Howe and Hoorness might on excavation – like the coastal exposure in Marwick Bay – prove to be multi-period and to encompass a later Viking-Late Norse phase.

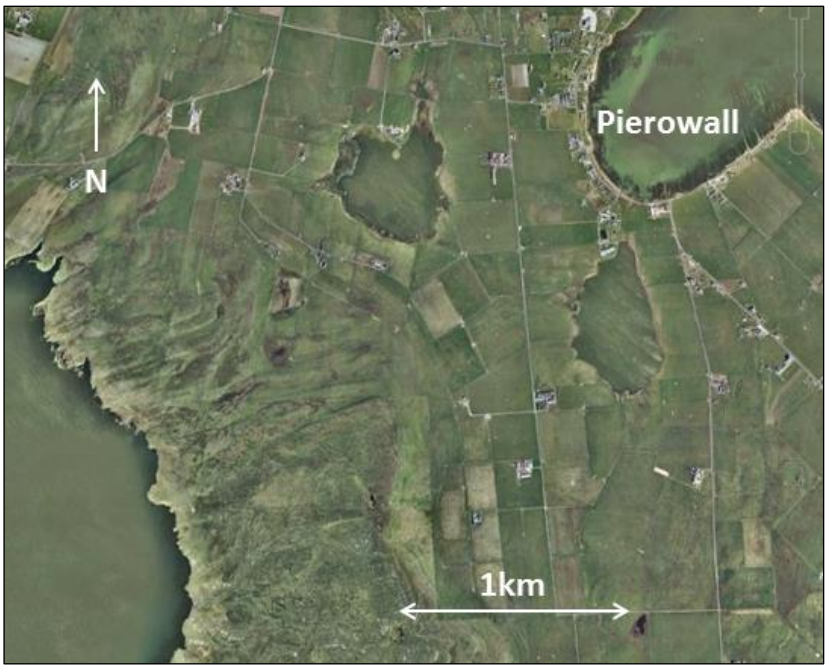


Fig. 6.06: showing the western hills to the left and the Bay of Pierowall to the right © GoogleEarth.

Area 1: Bay of Cleat and Skel Wick: Fig. 6.07

Two wind-blown sand bays along the east coast have Viking-Late Norse archaeology: the Bay of Cleat (no. 4); and Skel Wick Bay to the south (no.6), which last site is only 200m to the east of a cluster of skaill-names. The *Original Name-Book* describes Skel Wick as large and fertile: 'beautifully

[4]The earliest occupational evidence was associated with a clustered farmstead, from around 2800-2500 BC. Set inside a stone-walled enclosure, the complex stood on a ridge surrounded by cultivated fields, with its finest structure at the centre. Over time, more buildings were added and older elements were modified and reused, creating a series of densely-packed rooms and passages. Later buildings were constructed out over the original enclosure wall. The settlement was surrounded by deep, extensive contemporary middens. These were carefully managed and used for a variety of activities, including animal butchery and craft-working: stone pathways lead through the deposits, while certain areas appeared to be reserved for specific activities. Unusual deliberate arrangements of groups of objects were discovered within the middens: for example a scallop shell was placed between the horns of a sheep skull with a flint tool inside.

and thickly cultivated and the most productive district in the island' (Vol. 26, 207). No broch-sites have been located along the east coast.

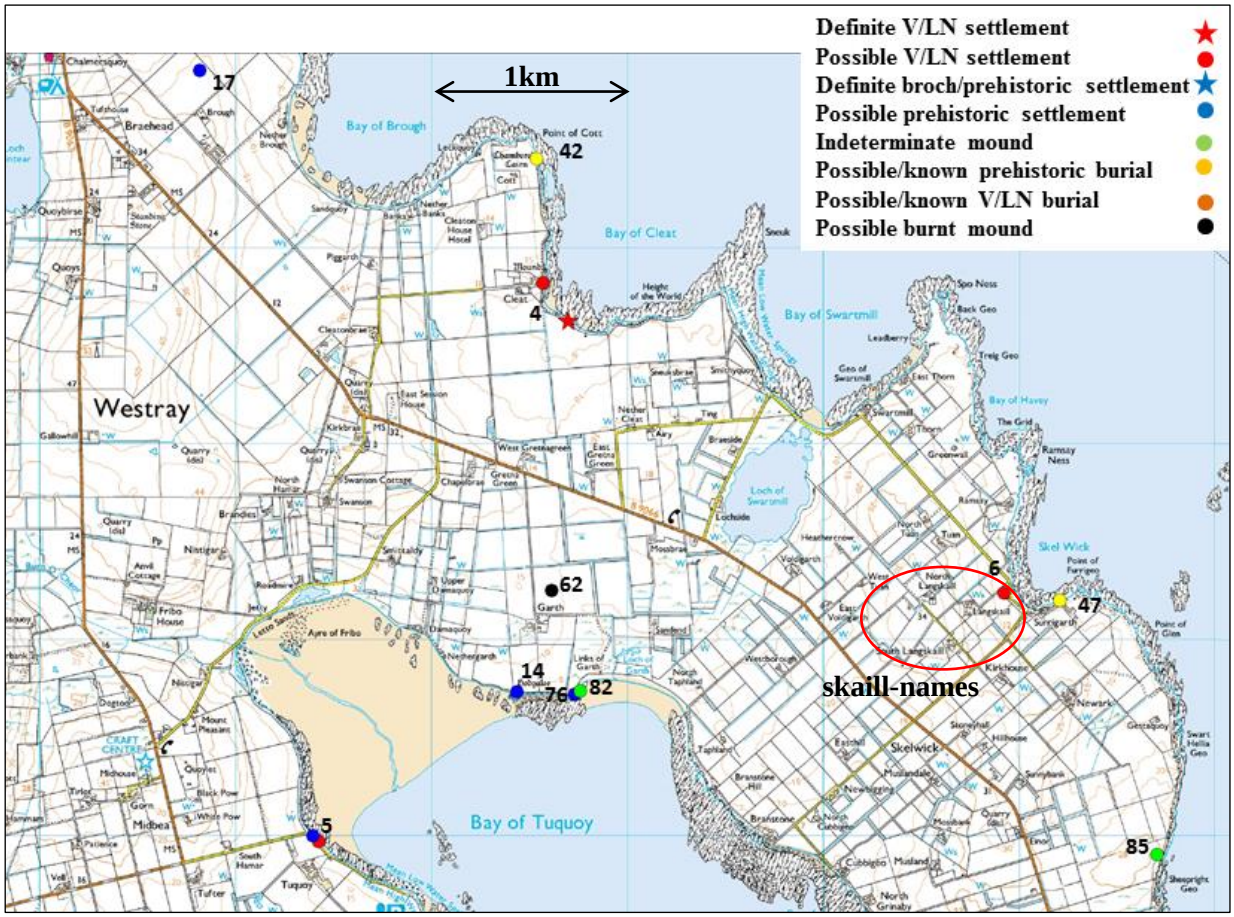


Fig. 6.07: archaeological mounds in the Bay of Cleat and Skel Wick.

The large Mound of Skelwick (no. 6) was dug into when the coastal road was diverted following sea-erosion: '…human and animal bones, as well as many fragments of deer-horn, were found in the interior amongst kitchen-midden refuse' (OSMR 716: first entry). Later quarrying revealed traces of stone structures within the surviving mound; the topography of the small paddock in which the mound lies suggests stone-remains still spread beneath the turf. Unfortunately, the sea-wall protecting the road a mere 15m east now hides the related eroding beach-section. The mound's enclosure is traditionally linked with a chapel and burial ground; a now-disappeared farmhouse known as *Old Kirkhouse* is reputed to have stood nearby. The OSMR records also suggest that more "kitchen midden" was seen further along the erosion edge, probably to the east. The Mound of Skelwick faces another small mound on the south side of the bay (no. 47): interpreted as a chambered cairn.

On the Bay of Cleat a mound on the northern bay-arm at the Point of Cott was excavated (no. 42; Barber 1984, 21-22) and confirmed to be a chambered cairn. Known/possible Viking-Late Norse archaeology clusters around the modern farm of Cleat (Fig. 6.08). Just to the east of the farm in windblown sand lies an eroding shapeless mound which could be a settlement and/or burial mound: human remains were reportedly discovered there in 1879 and structural stones have also been recorded (no. 4). Immediately behind the farm, north of the road, is an enclosure, the micro-topography of which again suggests the turf blankets sub-surface structures. This area is reputed to be the burial ground of an early chapel but reported finds of bone combs and midden-type material indicate a possible settlement site. These two sites may indeed be parts of the same large and potentially multi-period settlement.

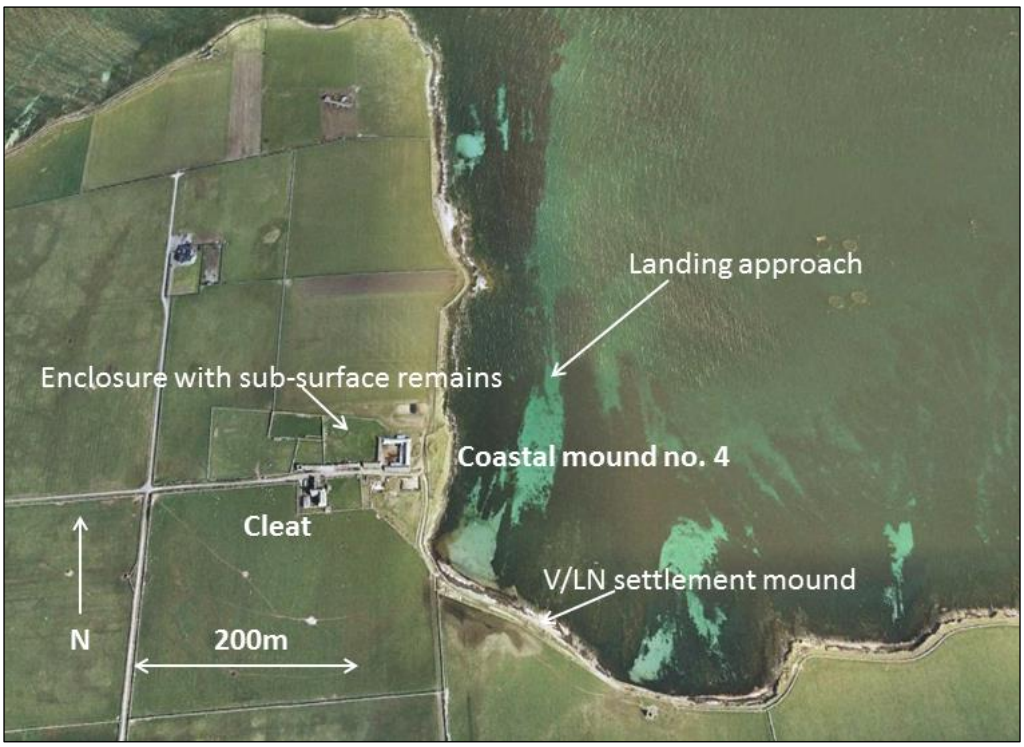


Fig. 6.08: Cleat farm © GoogleEarth.

Just to the south-east (no. 4 red star, Figs 6.07 and 6.08), lie the remains of a partially-excavated Viking-Late Norse settlement site (Maleszka 2003). This large sandy coastal-mound was evaluated when erosion threatened to obliterate it, revealing middens and structures. The test-pit-size excavation and poor state of preservation made results hard to interpret, but stone walling and flagstones probably represented the remains of an abandoned building filled-in with midden-type material – a typical

mound-interleaving of structure and midden. Steatite sherds, worked bone objects and a Viking-Late Norse spherical weight were found; the deposits produced a radiocarbon date range of AD870-1280 (TO-6344; DES 1997, 61). Although only partially-investigated and confusing, the archaeology on the Bay of Cleat suggests considerable Viking-Late Norse settlement. While it is not as obviously an attractive sandy bay as others, there are excellent views across important sea-ways into Pierowall and to Papa Westray. The Cleat ON *klettr* ('rocky eminence') place-name is also argued in this research to be associated across Orkney with significant, mound-located probable Viking-Late Norse farms (see pp. 375-78). The current configuration of the bay also creates a clear landing-approach between rocky outcrops onto the beach-area closest to the sites described above.[5]

Area 2: Bay of Tafts and the Sands of Woo: **Fig. 6.09**

On the southern arm of the island the sandy curve of the south-west facing Bay of Tafts presents a classic Orkney Viking-Late Norse settlement area, reinforced by the *bu*-name of the principal modern farm looking from a hill-shoulder across the southern end of the bay.[6]

Very little is known about the archaeology of this bay. The abandoned farm of Tafts on the links surmounts a mound apparently containing stone and midden, and interpreted as a possible broch/prehistoric settlement site (no. 18). This large, bay-edge mound is as likely to be multi-period as only prehistoric. Another large, coast-edge mound in the windblown sand of Taftend Beach lies less than a kilometre to the north-west of Tafts, just north of the outbuildings of Taft End farm (no. 83). Two smaller mounds flank these mounds, sited in typical burnt mound locations, slightly inland on gentle slopes in damp ground: the badly truncated Knowe of Hamar (no. 60); and mound 56 by the Loch of Wasbist. Further inland to the east on the higher bulk of the heel of Westray, two smaller

[5] An eighteenth-century naust also testifies to the landing possibilities (OSMR 2855).
[6] Marwick describes a *bu*-site as a farm of considerable size farmed as a unit and not let to a tenant, often found among the bordlands or private earldom estates (1952, 240-243). Each *bu* seemed to have satellite farms: in the 1492 *Rentals* those linked to the Bu of Rapness were termed Quoyunsetts (ibid. p 241). Marwick also notes that each had a chapel and they were all close to the sea. In *Orkneyinga saga*, *bu* seems to be used in the general sense of residence, but of an important person, and so is like *skáli* a *descriptive* term (ibid. 243); whereas *bær* referred to the actual farm. The "Bu of…" usage however developed more recently (see Chapter 7 fn. 6).

plough-damaged possible burnt mounds, overlook the Bay of Tafts and the sands of Woo to the south: the Knowes of Goltoquoy (no. 58) and Cotterchan (no. 59).

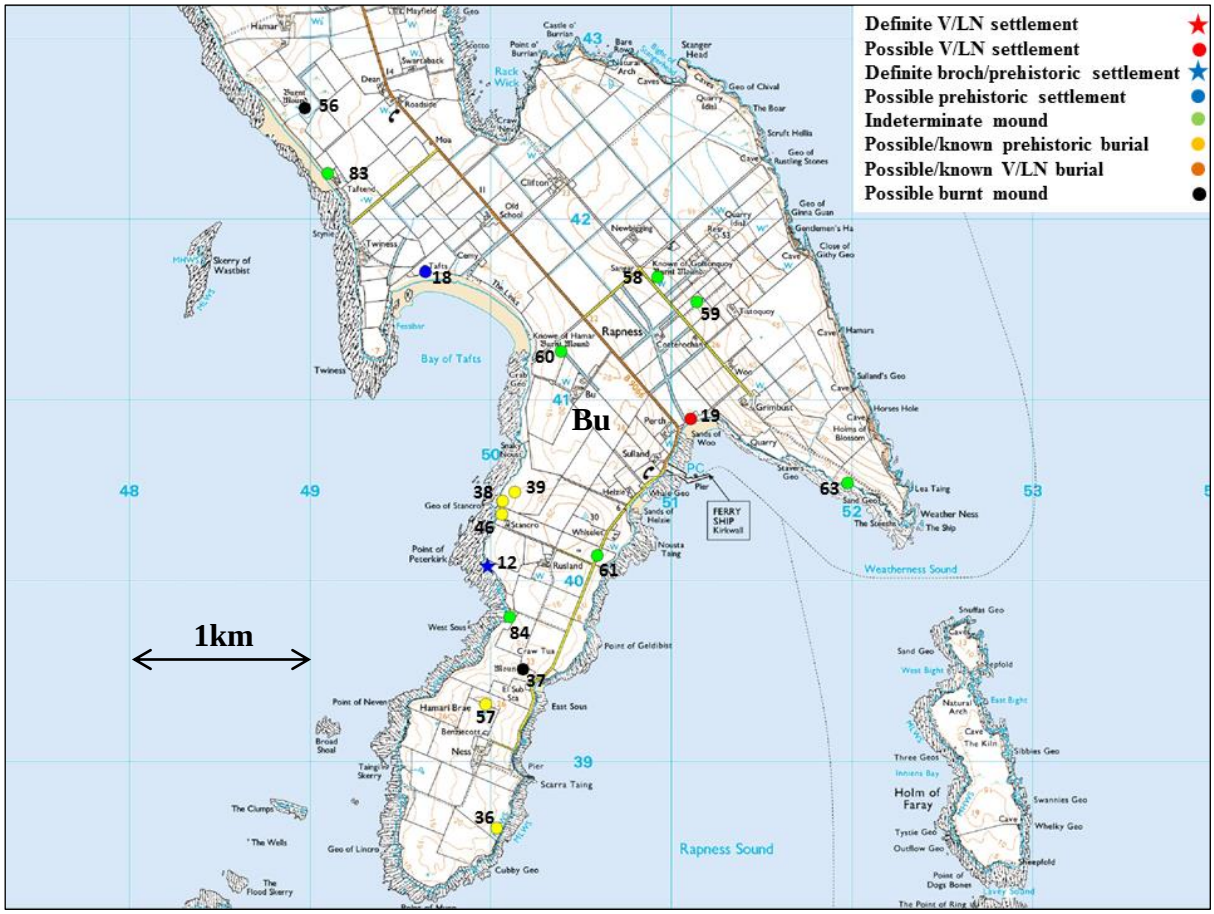


Fig. 6.09: archaeological mounds in Rapness.

On the windblown Sands of Woo, south-east of the Bay of Tafts, construction of the ferry pier destroyed a large mound containing structures and interpreted as a multi-period settlement mound (no.19). Two small indeterminate mounds once flanked this site on the arms of the bay: to the south-east no. 63, which contained stone; and to the south-west and more inland a mound with burnt material (no. 61). Nausts, possibly of Viking-Late Norse age, have also been recorded at the Sands of Woo (OSMR 00886).

Although very little is known about the three possible settlement mounds on the three sandy stretches of Rapness, their location, character and the proximity of a *bu*-name do suggest possible Viking-Late Norse archaeology. The archaeological character of the Ness – the toe of the elegant foot of Westray – is different. No mound-sites on this narrow rocky peninsula are interpreted as Viking-Late Norse, but

there are five possible prehistoric burial mounds, three indeterminate mounds and a settlement mound on the western shore at the Point of Peterkirk (no.12). The Peterkirk site was the subject of a rescue excavation which uncovered a broch with extramural settlement (DES 2000, 69). This was purportedly the location of an early Orkney chapel, for which no archaeological evidence was discovered (Clouston 1918a).

Area 3: The Bay of Skaill: Fig. 6.10

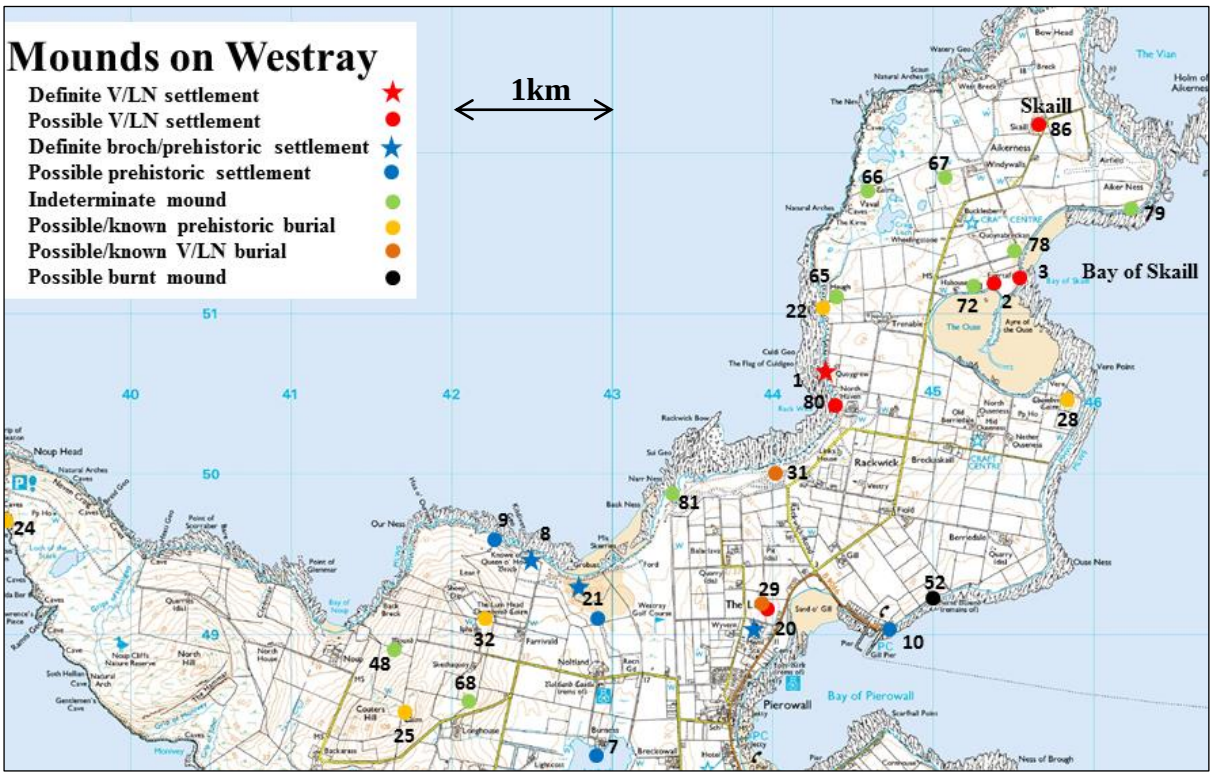


Fig. 6.10: archaeological mounds in Aikerness.

The township of Aikerness has many indeterminate mounds (nos 65- 67, 72 and 78-79). Sites 65 and 66 are small turf-covered mounds on inland summits. Clearly visible on a hill-crest Vaval mound 66 may have helped guide shipping approaching Rack Wick, or served as a meith/marker for fishing grounds (Barrett 2012, 31). Three coastal-mounds identified more recently (nos 72, 78 and 79) are all amorphous, turf-covered, c. 30m in diameter and on the coast-edge in windblown sand. There are no brochs known in the northern Bay of Skaill area. Peatwell (no. 67), about 700m south-west of the farm of Skaill, is a larger, inland mound which has been quarried for its stone. The first RCAHMS report

identified ‘very definite’ traces of a small building ‘possibly ancient’ on this mound (1946, 360); stone is still visible and this remains an unexplored, possible settlement site close to a Skaill farm.

This sandy mound-rich landscape with its skaill place-names has produced tantalising hints of Viking-Late Norse settlement. The sites are not yet well-investigated. Hahouse (no. 2) and Evertaft (no. 3) lie close together at the south-western end of the sandy Bay of Skaill. Hahouse is badly eroded, its original extent impossible to determine, but midden and stone structures have been recorded, and a quern stone found nearby. This might have been a multi-period mound; it is difficult now to know. Evertaft, a large (c. 60m in diameter) coastal mound, across which an eroding sand-section revealed interleaved middens and drystone structural elements, has been dated recently by the excavators of Quoygrew (Fig. 6.11). A sample from low in the erosion-section produced a radiocarbon date range of AD135-404 and a sequence of five OSL dates through the section ranged from 70BC-AD215 to AD890-1290 (Barrett 2012, 31; Gibson 2008, 57). This confirms Iron Age activity and the likelihood of a multi-period settlement mound including a Viking-Late Norse component, in a characteristic bay-arm location.

Fig. 6.11: Evertaft mound in 2014, looking south-west.

Finally, north of Skaill farm, 500m from the sandy beach of the bay, a much-spread mound can still be discerned on a rise in the land (Fig. 6.12; no. 86). A cist and human skeletal material were reportedly found in this location; however, as midden and structural elements were also recorded this may have

been a settlement mound (Table 6.01). No archaeological traces are now visible but this remains another promising potentially Viking-Late Norse mound close to the substantial Skaill farmstead (Ashmore 2003; recorded on Mackenzie's 1750 map as the "principal farm").

Fig. 6.12: Skaill farm (centre) seen from Papa Westray looking west.

Area 4: Midbea Township: Fig. 6.13

This section will deal with the archaeology of the area as an introduction to a discussion of the excavations at Tuquoy and Langskaill. Neither of these sites has been fully published.

Introduction: the archaeology of Midbea

Modern Midbea covers a broad sandy promontory between the Bay of Tuquoy in the east, the rocky coast around three kilometres to the south-west and Fitty Hill to the north-west. It slopes north-north-west upwards from the coast to Midhouse summit in the east (c. 30mOD), with a slightly lower spur at Langskaill to the west. Most of the land to the south lies at around 10mOD and is shaped by windblown sand, especially at the Links of Tuquoy in the east and Mae Sand and Bakkie in the south.

This would have been an attractive area for Viking-Late Norse settlers, with light sandy fields for oats or barley, rocky foreshore, meadows for winter fodder and rougher upland for grazing, turf flaying and peat cutting. Good landing places and safe beaching for boats commanded views of surrounding islands and sea-ways out to fishing grounds. A large number of boat nausts are recorded for Westray,

and the Ness of Tuquoy is no exception: nausts along the coast, although difficult to date, demonstrate the sandy geos provided safe harbourage (RCAHMS 1983, record 166). Prominent mounds like the Knowe of Burristae may have acted as meiths/makers for the fishing grounds and harbour approaches.

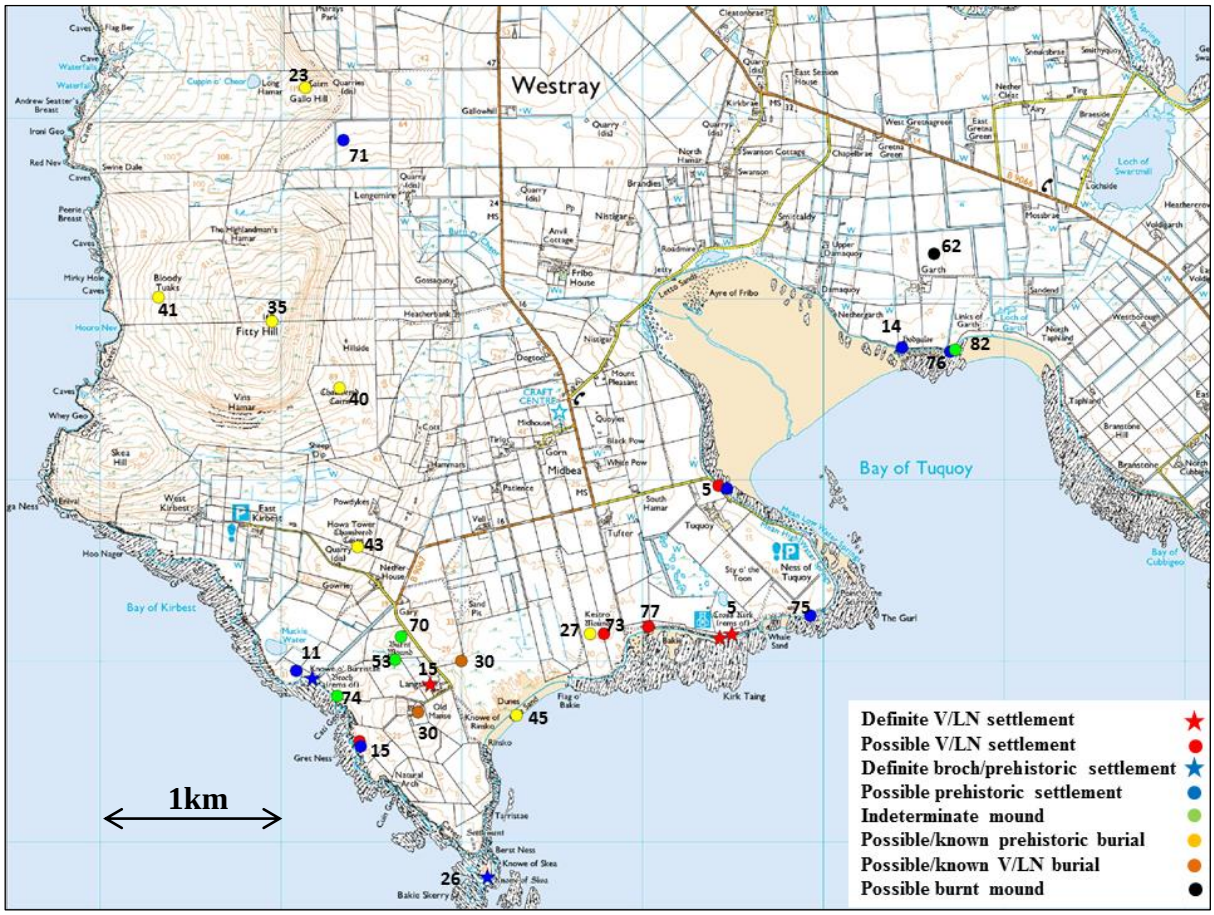


Fig. 6.13: archaeological mounds in Midbea.

Hugh Marwick describes the entries in the 1492 *Rentals* for this area as sparse and confusing (1952, 34). Reference is made to the tunship of Noltland Bewest (from the ON for 'western cattle-land') on the southern slopes of Fitty Hill, but Midbea to the east does not appear and is presumed therefore to be bishopric land (Marwick 1952, 34).[7] In later *Rentals* Langskaill is listed as the largest farm in Noltland Bewest;[8] Velzie and Gorn the biggest in Midbea,[9] which tunship name now appears (Peterkin 1820). The 1492 *Rentals* also describe Noltland Bewest as 'jam third Part blawn till Issland and

[7] Bishopric and earldom (or Bordland) land was not taxed in the same way so was not assessed in the *Rentals*.
[8] In the *Original Name-Book* (1879-1880), Vol.26, Orkney, 236, Langskaill is listed, like the large farm at Skaill in Aikerness, as belonging to the Earl of Zetland.
[9] ON *mið-bœr* ('mid farm/settlement').

mansworne down', which suggests that the light sandy soils were by being blown away so reducing the value of the land (quoted Marwick 1952, 35).

On the basis of the *Rentals* Marwick argued that the three tunships of the modern district – Noltland Bewest, Midbea and Tuquoy – were once a 'large original estate of the *bær* type' (1952, 35), which became earldom Bordlands. Raymond Lamb suggested that together they represented 'the original magnate farm' (1993, 81), valued at a huge four and a half urislands. The tunships' original unity, Marwick thought, was 'strongly supported' by the presence of the parish church of Cross Kirk, now an elegant ruin at the east end of Bakkie beach (Marwick 1952, 35). Marwick was writing before the substantial Viking-Late Norse site of Tuquoy was identified in 1981 just west of Cross Kirk, but postulated that the 'dignified' (ibid. 35) and 'refined' (Lamb 1993, 81) twelfth-century church with its Romanesque vaulted chancel was the focus of this important block of land (Owen 1993, 318).[10] Marwick inferred that this would have been the seat of one of Westray's most powerful families at a time when parish churches were being established from chapels of local chieftains (c.f. Grieve 1999). As the discussion below reveals Midbea was undoubtedly also an important area in the preceding Viking-Late Norse period. And while not proven to be the "land-take" of one of the greatest of the early Norse settlers in Orkney, it is hard to disagree with Marwick's conclusion that, for a new arrival '… a more attractive settlement he would not have readily found' (Marwick 1952, 35).

This "estate" has been tied to a major player in the twelfth-century machinations of earls and henchmen chronicled in *Orkneyinga saga* (Pálsson and Edwards 1978). Three leading men are mentioned as living on Westray: Kugi of Rapness, Helgi, probably based in Pierowall, and the overbearing Thorkel Flettir and his two unpopular sons Thorstein and Haflidi. The estates belonging to Thorkel have no named location in *Orkneyinga saga*. He and his sons played a pivotal role in the struggle for the earldom in the AD1130s, in which Kali Kolsson was ultimately successful. Under his new name of Rognvald, he became one of the most influential Orkney earls. The linking of Thorkel to

[10] There are also reports of a missing and purportedly early chapel, the Chapel of Kirbist on the west coast (OSMR 00722).

the attractive area of Midbea, with its distinguished church is appealing but less convincing than it might seem. The *Rentals* are confusing, the archaeological evidence incomplete and areas discussed above in the north or south of Westray arguably also contenders for Thorkel's base.

Midbea does not lack prehistoric archaeology: with a securely identified broch eroding from the Knowe of Burristae (no. 11; Gibson 2008, 65); and other possibly prehistoric, or multi-period, settlement mounds on the west coast (nos 11 and 15), on the east coast in the Bay of Tuquoy (no. 5) and at the point of the Ness of Tuquoy (no. 75). Close by, in a characteristic broch location on the north-east arm of the Bay of Tuquoy, the coast-edge mound of Hodgalee (no. 14; Gibson 2008, 58-61) has yielded Iron Age pottery, and revealed midden and broch-like structural elements. This looks across the bay to the Ness of Tuquoy. The ploughed-out cist at Kestro (no. 27) may be only one of other prehistoric burials around Mae Sand and Bakkie (no. 45). The most extraordinary prehistoric archaeology, however, has been uncovered in recent work on the Knowe of Skea, the tidal islet off the headland of Berst Ness in the south-west. This has yet to be completed and fully published but uncovered an unusual and extensive Iron Age and earlier funerary and settlement site (Gibson 2008, 46-49; Moore and Wilson 2001). Five mounds have been investigated on the headland and reaching across to the tidal islet, while excavation has focused on the considerable mound on the Knowe. A complex multi-period site was revealed, with substantial stone buildings and associated burials, interpreted as a funerary complex used from as early as the Neolithic, until the seventh century. Evidence for metal-working was discovered along with over one hundred Iron Age burials, most of which were of very young children and babies.

The area has a number of indeterminate mounds (nos 53, 70 and 74), but a wealth of Viking-Late Norse sites as well as the Langskaill place-name. The excavated Viking-Late Norse sites of Tuquoy (no. 5) and Langskaill (no.15) will be re-evaluated separately. Several probable Viking-Late Norse burials made into sand, possibly Mae Sand links, are reported in the *OSA* and *NSA*, although the nineteenth-century records are unclear about the location (no. 30). Three possible Viking-Late Norse settlement sites are listed for the area (nos 73, 77 and another bit of settlement recorded in with OSMR

reports for Tuquoy, no. 5). Structural remains and anthropogenic deposits were visible in an erosion exposure at Kestro (no. 73).[11] These were interpreted as a farmstead of late- or post-medieval date (Moore and Wilson 2000, 68). Kestro is therefore a partially post-Norse site but the small intervention could not have explored its full extent and depth; it remains possible that only the latest configuration of the settlement was recorded. Baikie/Bakkie (no. 77) just to the east, and only 500m west of Tuquoy, is perhaps more promising: an extensive, eroding sandy mound. In 1998 and 2014 over 50m of walling and deep deposits of highly organic soils including peat-ash and midden-type material were visible. The topography of the land behind indicates further sub-surface remains. These could be the remains of a significant and extensive settlement. The Tuquoy Ness is therefore strikingly rich in archaeology, some of which is already lost: in 1981 the last remnants of an eroded mound containing stonework, including wall-facing were recorded, indicating more possible settlement on the north-eastern shore of the Ness (no. 5). The whole of the south-facing coastline between the Links of Mae Sand/Bakkie and the Ness of Tuquoy is punctuated with mounds; this is surely an area where geophysical survey should be tried.

The Excavations at Tuquoy

This section summarises and re-assesses the 1980's excavations of the coast-edge Viking-Late Norse settlement site at Tuquoy just west of Cross Kirk.[12] The site is not yet fully published: access to detailed stratigraphical records might prompt a rethink of the re-evaluation offered below. However, in the light of more recent excavations the available evidence for Tuquoy urgently needs reconsidering.

Introduction and summary

The site was identified on the south coast of the Ness of Tuquoy in 1981 when the remains of four substantial walls were recorded protruding from the cliff-section above peat-ash and midden-type

[11] This section was cleaned and recorded in its entirety; a small rescue excavation in the immediate hinterland demonstrated the wall seen in section formed one side of a rectilinear structure, incorporating a small corn-drying kiln at one end. The remains of two further buildings were also located. A possible short-cist burial was reported nearby (no. 27).

[12] It has been compiled using the OSMR records (710), relatively brief interim reports (Owen 1982, 1983 and 1988) and summary reports in Owen 1993 and 2005.

material. Archaeology still extends about 120m west of Cross Kirk, physically separated from the churchyard by the (reasonably) dry streambed which originally flowed from the now drained Loch of Tuquoy. A complex sequence of midden material and structures is being continually eroded (Fig. 6.14); auger survey in the 1980s suggested even the erosion-diminished site extended as much as 50m back from the low cliff-edge (Owen 1988).

Fig. 6.14: the erosion section at Tuquoy in 2008 looking north-east.

The site's original name is not known; the present name comes from the large working farm of Tuquoy, less than 700m to the NNE of the cliff-section, and mentioned in the 1595 *Rentals* (Peterkin 1820, 71). The *quoy*-ending, ON *kví* ('sheepfold' 'pen where animals congregate for the night'), has been argued to identify secondary settlement carved out of grazing land (Marwick 1952, 41).[13] Raymond Lamb has suggested that *Tu-* may be derived from ON *þúfa* ('mound') (Owen 1993, 318). One of the several not yet investigated coast-edge potential settlement mounds (no. 5), lies only 100m east of the modern farm.

Cross Kirk church is a twelfth-century Romanesque structure, with a later western extension of the nave, probably added when the chapel became a parish church. Although the present graveyard is

[13] Even if the name cannot convincingly determine a settlement *chronologically* secondary it has certainly been regarded as designating one lesser in status.

enclosed by a near-rectangular wall, there are traces of an earlier sub-rectangular enclosure to the north, east and perhaps west, delineating a smaller area 50m by 25m (Fig. 6.15; Lowe 1993, 321-324). The enclosure hints at earlier arrangements: possibly an earlier chapel.

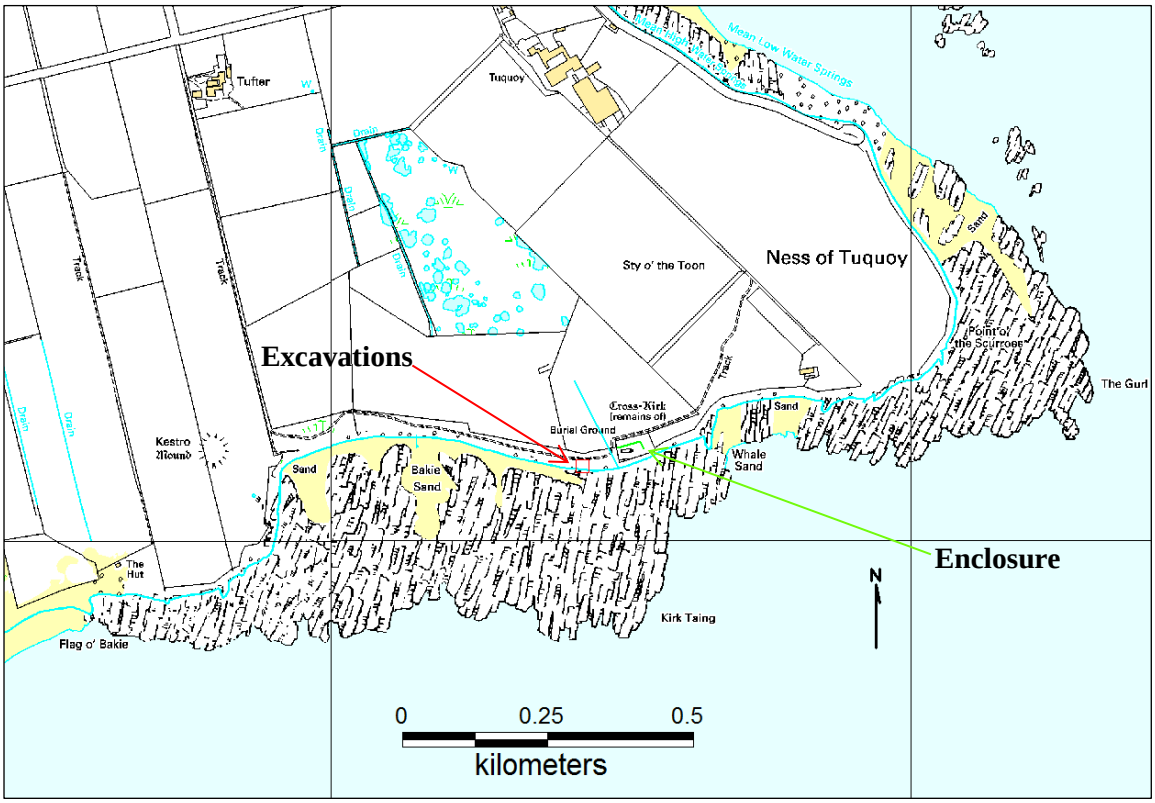


Fig. 6.15: the Ness of Tuquoy. The red square locates the main excavations; the blue line to the east the relict stream and the green line the earlier enclosure within the kirkyard.

After rescue excavations and survey in the 1980s on the rapidly-eroding site, Tuquoy was summarised as a 'complex and long-lived settlement' occupied from at least the tenth to possibly fourteenth centuries (2005, 206). Those excavations were limited in extent.[14] The full report has yet to be published and the re-analysis here must rely on published summaries (especially Owen 1993 and 2005), such details as can be gathered from relatively brief unpublished interim reports (1982, 1983 and 1988) and OSMR/Canmore entries. The nucleus of the site was interpreted as a twelfth-century to medieval site, with the site's main component a rectilinear hall aligned north-east/south-west (not north-west/south-east as stated in 2005, 198 etc.). With walls not less than a metre wide, the hall

[14] The main trench was about 14m W-E, including an eastern extension, by 4m N-S back from the cliff-edge, with an extension to the north of c 5m N-S by 9m W-E.

measured 3.75m by 6.65m internally as exposed (it is not known how far it continues north-east beyond partition wall **278**; Fig. 6.16).

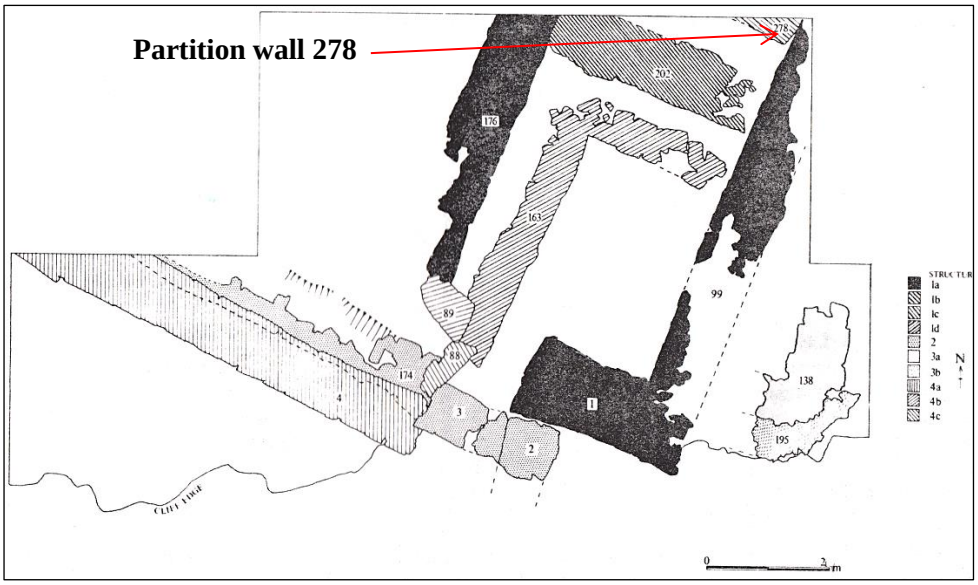


Fig. 6.16: after Owen 1983 Fig. 3: poor quality original. Wall 278 is in the hall's far north-east corner.

Internal features were few but the building was apparently partitioned and partially re-paved at least three times. Artefacts associated with the structures were described as high status and included a late-eleventh/early-twelfth-century Hiberno-Norse ringed-pin (2005, 200). The re-evaluation of this site begins by looking at fieldwork done to contextualise the central excavation then proposes a re-interpretation of the excavated structures.

Re-analysis

<u>The cliff-section</u>

Limited excavations, auger-transects and "clean and record" activity occurred at Tuquoy in 1982, 1983, 1988 and 1993. From the outset the site was described as having deep deposits and substantial buildings with complex sequences of change and rebuilding, and a rich collection of finds suggesting a high-status site dating from at least the twelfth century (1983). 100m of the 1.2m-2.75m high cliff-section west of the church were cleaned and recorded in a c. 0.5m wide strip. Coring in 1988 suggested that archaeology survived up to 50m back from the section and extended 150m west of the graveyard wall (Fig. 6.17). The survey was interpreted as showing structures clustered around the

excavation area, with rich midden surrounding them and augmented field-soils further out again (Owen 1988, 1993).[15] The excavators also argued for occasional outlying structures; however, the recorded auger-strikes on stone are as likely to represent random rubble as actual buildings in a landscape where several stone structures had been dismantled or abandoned.

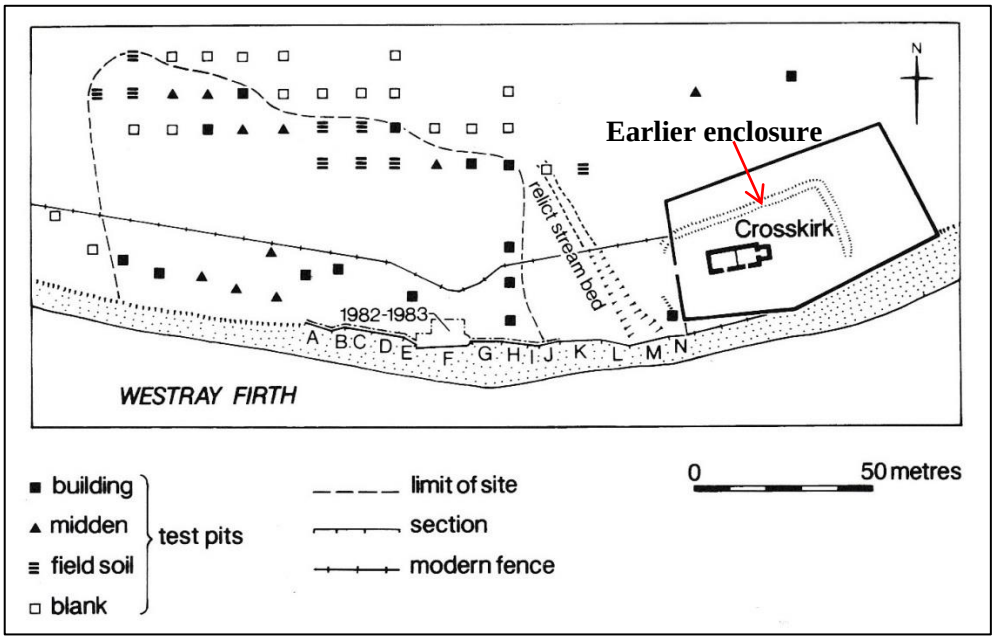


Fig. 6.17: after Owen 1993, 322, showing the auger survey and sectors of excavation with the main excavation marked.

On the basis of the excavation and survey as reported it is difficult to confirm the excavators' theory that the nucleus of the site moved westwards, with new buildings built *next to* the ruins of old, especially as the interim reports cite considerable evidence for structural re-use and incorporation, rather than evidence for new building alongside abandoned structures (Owen 1993, 325). Other archaeological sites immediately to the north and west along the low cliff-edge are also briefly mentioned,[16] as well as boat nausts to the east of the church (Owen 1993); the archaeology is clearly complex and extensive as well as focused and intensive.

Areas A-C of the cliff-section (Fig. 6.17) were dominated by rich midden-type material; D-F by a 'complex structural sequence' (Owen 1993, 326); G-H by midden and I-J by structural elements and

[15] These are deep top-soils as discussed in Chapter Four (2), pp. 112-20.
[16] The site to the west is suggested to be stratigraphically earlier than the excavated area: see discussion below.

the waterlogged material of a large "pit". The section-cleaning identified several archaeological foci; three were excavated. The largest investigation was conducted in Area F, where the most striking exposure of massive masonry had been observed; but even that excavation stretched only eight metres back from the cliff-face, with a maximum width of about 14m. Across this small area over only two seasons of work, untangling the complex archaeology was a great deal to aspire to. This main excavation located the "hall" dated from the twelfth century and abandoned before the fifteenth; the suggestion was that a later, medieval focus lay mostly unexcavated to the west and north. A re-interpretation might begin by proposing the site was less straightforward than that thesis suggests.

When describing the entire cliff-section Owen recorded 'extensive midden deposits surrounded and filled consecutive and abutting *sequences of structures*' with flagged floors, hearths and under floor drains (Owen 1993, 3224; 2005, 198; my italics). The whole section highlighted the density of the archaeology; furthermore all three excavated areas yielded evidence of pre-twelfth-century activity. The stratigraphically challenging picture seen in the cleaned section was echoed in the archaeology of an earlier "passage-way" building, excavated west of the main excavation, and of the "pit" to the east (with a late-ninth /early-tenth-century radiocarbon date: see below). The suggestively curvilinear and stratigraphically early walling in the east of the main excavation (contexts **138** and **195**: Fig. 6.16) also hinted at a frequently refashioned, built-up sequence of buildings and associated areas beginning *before* the twelfth century. Finally, the building aligned roughly north-west to south-east at right angles to the main hall, which the excavators argued was a *later* construction than the hall, this re-evaluation argues was in fact an *earlier* longhouse-type structure, strongly reminiscent of the East Mound building at Skaill (Sandwick).

<u>The pit and the passage-way</u>

Structures to the west of the main trench were investigated in a small way. In 1993, after severe storms further undermined the cliff-face, '… (a) "flagged passageway" [recorded in section in 1988] was … partly excavated. This is clearly part of an *earlier* structure [of unknown date] with a substantial paved floor, *which had been remodeled on at least two occasions'* (Owen 1993 [Canmore]; Owen 1993, 335;

my italics). The passage-way lay at a level 0.6m below the putative smithy building recorded in the main excavation: it was 0.6m wide, bordered by single-faced walls and infilled with sand. The unexcavated building beyond was 'of unknown function, morphology or date', but clearly part of another 'complex sequence'; the cliff-section stratigraphy suggested it was earlier than the later Viking-Late Norse period (Owen 1993: Canmore record). If the "smithy building" is re-interpreted, as argued below, to pre-date the main hall then this earlier sequence of remodelled structures may be pre-Viking-Late Norse.[17]

The huge pit to the east of the main excavation measured 7m west-east by 3.5m north-south and was dug 1.65m into windblown sand. Its western edge was disturbed by later walling and deposits, although the 'chronological sequence here was *not unambiguously* determinable in section' (Owen 1993, 330; my italics). The wall was apparently built within the pit onto the lowest coarse gravel-fill; the lower waterlogged deposits of the "pit" were described as butted against the wall. The wall may in fact have been an original feature against which deposits accumulated. The lone radiocarbon date quoted up to now for the whole excavation comes from this pit, and presumably from the lower deposits, giving a date range in the ninth to mid-tenth centuries.[18] The waterlogged layers produced ash, straw and dung: a 'variably humified [sic], layered organic deposit' rich in the pollen of cereal and arable weeds (1993, 334). These were recognised as characteristic byre-deposits, with insects demonstrating the deposits had formed *within* a structure. The essential question is whether these floor-layers had been redeposited or, as was initially argued in the 1993 summary, *in situ* byre-floors (ibid. 335). The excavators discerned stratigraphy within these byre-deposits, suggesting a complex formation, occurring intensively, but over some time; this supports a thesis of gradually accumulating floor-layers. Perhaps the erosion-section had in fact cut across the floor-deposits and wall of an early byre-building, which was subsequently waterlogged by the diversion of outflows from the partly-drained loch to the north. The "pit"/building was infilled with seaweed, peat-ash, woodworking debris, burnt straw and sand. The earlier infill layers were certainly pre-twelfth-century and probably did not

[17] Owen acknowledged that from what was seen of the building: '… the feature is unlikely to be Viking in origin' (1993, 335).
[18] AD820-950 (GU-1650)

represent a straightforward rubbish-pit. However the "pit" is interpreted, Owen's later suggestion must be right: 'somewhere in the immediate vicinity there is almost certainly a large early Viking farm' (2005, 335). The immediate vicinity might be very close indeed, with the "pit" in fact one of the farm's outbuildings.

The main excavation

In 1982 four substantial walls were seen in the cliff-section standing over 1m high, associated with a series of flagged-floors, *overlying* peat-ash and midden-type material containing steatite. Areas of the walls revealed possibly external lime plaster.[19] In the first season of excavating back from the walls, kelping pits were uncovered; then croft-ruins and, under drifts of windblown sand, the uppermost medieval/Viking-Late Norse archaeology.

The medieval archaeology, concentrated in the northern extension, was a difficult jumble of walls of different styles and phases, and of areas of paving, all disturbed by rubble and building debris: 'This complex of constructions had more the character of outbuildings than dwellings…' (Owen 1982, 4). The elements uncovered included the eastern wall and associated paving of a much re-worked building. No dates were suggested for these features, except for the mention of glazed medieval pottery. Under what was probably abandonment infill and collapse were the walls and floors of the main hall. The deep infilling material yielded midden-type deposits, spreads of burning, and discrete dumps of domestic refuse. The 1983 report argues these concentrations reflect 'selective organisation of domestic activity' (4), but could equally result from organised midden curation.

<u>The "hall"</u>

The hall was represented by three substantial walls: **1**, **99** and **176** (Fig 6.18), of dry-stone construction with rubble and soil infill, creating an internal area 3.75m by 6.65m. Wall **1** had traces of lime plaster on its southern face (which could be a later addition). The association of Walls **1** and **99** is not certain – there is a clear break in the plan drawing (Fig. 6.18) – and the eastern face of **99** was not

[19] A feature of Later Norse building from the twelfth century onwards.

convincingly discovered. By the second season of excavation in 1983 doubts had diminished and: 'excavation results show beyond doubt that Wall **1,** together with Walls **99** and **176,** is an integral part of a long and massive, rectangular hall-like structure' (1983, 5). This hall they asserted survived mostly to the north-east and the plaster on wall **1** was in fact external.

The interior of the building was repaved and partitioned at least three times. Wall **202** was overlaid by the last flagged floor, but Wall **163** was built on top of that floor: so the earliest "partition" wall seems to have been **202** (which looks substantial enough to have been an earlier external wall – its relationship to the western wall of the hall was obscured by the baulk), and the last **163**. There were no other internal features. Spreads of peat-ash were discovered *beneath* the flagging suggesting the possibility of earlier activity. This evidence challenges the excavators' conviction that Walls **1**, **99** and **176** must constitute the earliest building phase.

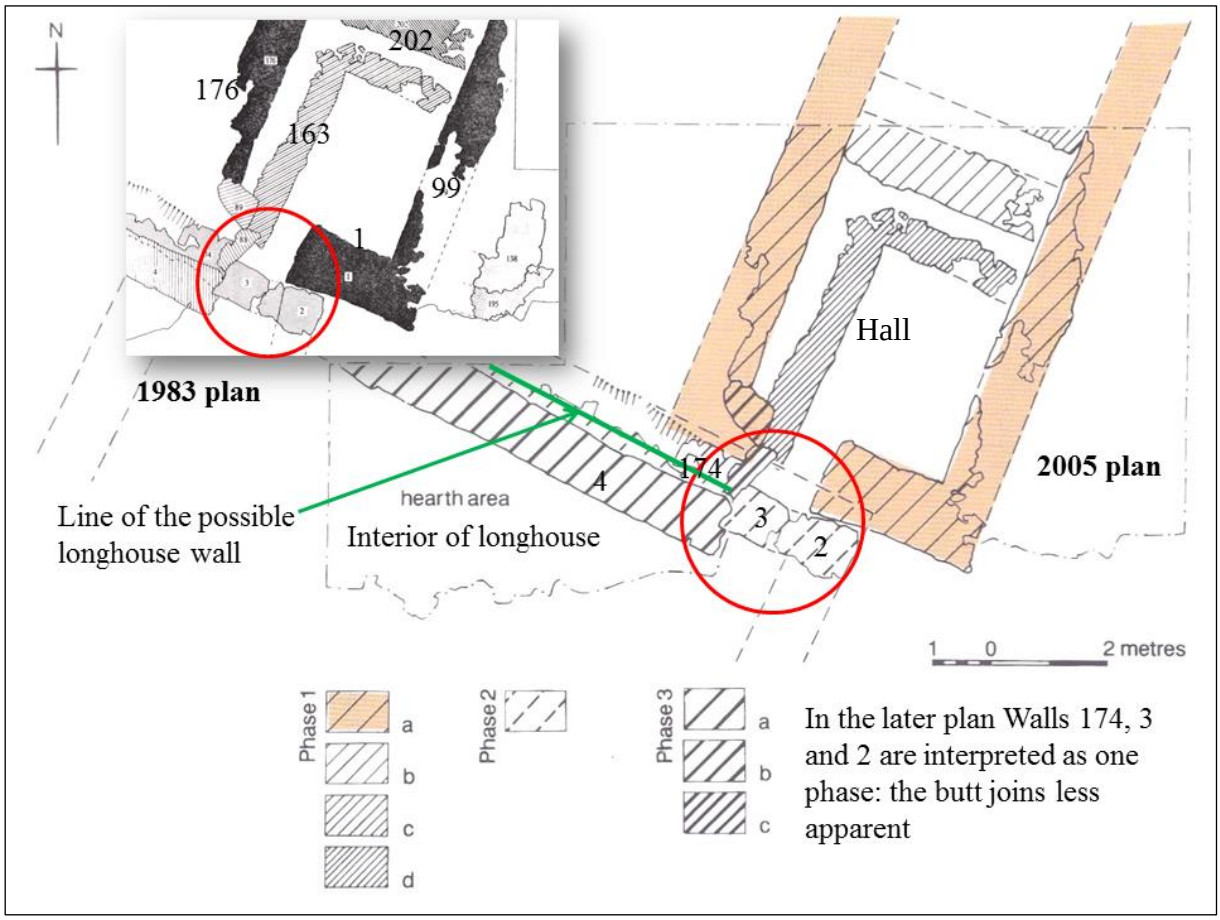


Fig. 6.18: after Owen 2005b, 199, Fig.4 and Owen 1983, Fig. 3: demonstrating the difficulty of interpreting the relationship between the "hall" and the southern building.

There were relatively few finds associated with this much-altered building, but they included: a twelfth-century ringed-pin; steatite sherds from large cooking pots; bone pins, needles, whorls, toggles and comb fragments; whetstones; a large collection of coarse pottery and a small collection of high-quality imported medieval pottery (1982, 9).[20] The partition walls re-used notched building stone, including near the south-east end of **163**, a stone inscribed with runes, laid with the runes upside-down. The inscription reads, prosaically, 'Þorsteinn Einarsson carved these runes': allowing only a broad dating to the twelfth century or later (Fig. 6.19; Owen and McKinnell 1989, 58).

The excavators argued the partitioning (if it was indeed all just partitioning) reduced the size of the area in use each time. Owen suggested these adaptations were driven by structural weakness: 'although the building was massive and grandiose in design, it was unstable, sited on loose sand and provided with negligible foundations'. The builders were 'inexperienced' and given its 'basic instability' the hall cannot have stood more than 2-3m in height (1982, 6). We are now keenly aware from other sites that building on sand was not only a perfectly viable procedure but also that frequent changes in shape, arrangement and function were a recurring feature in Viking-Late Norse buildings.

Fig. 6.19: showing the location of the rune-inscribed stone from Owen 2005, 199, Fig. 4.

[20] The ringed-pin was found apparently outside the building on 'the same stratigraphic level' as the large hall (Owen and McKinnell 1989, 58). It is difficult to know exactly what this means as it is notoriously difficult to associate finds with building phases. The location of most of the finds is unclear.

South of the hall

Interpreting the stubs and stretches of wall south of the hall is very difficult (Fig. 6.18). It seems clear that Wall **174** is an earlier external wall for an interior to the south and is overlain by Wall **4**. Earlier WNW-ESE wall **174** probably defines a sub-rectilinear structure most of which has been lost to erosion. The excavators determined this building was post-twelfth-century and had blocked the south-west entrance into the "hall". [21] The surviving triangle of building interior clearly showed features paralleled by those found in stone-built longhouses of the late-tenth to eleventh centuries elsewhere in Orkney (Fig. 6. 20). Similarities with the East Mound longhouse at Skaill (Sandwick) are very strong. Owen argued that the stone building techniques were primitive, requiring the building to be substantially rebuilt during its use (1982). This was based presumably partly on the surviving stretch of Wall **174**, of which only a couple of courses were found, and which was probably deliberately incorporated into Wall **4**. However, that rebuilding was probably driven by a change of function or size rather than structural defects. A similar sequence is seen at the end of the life of the Skaill (Sandwick) longhouse when an already remodelled longhouse wall was robbed and rebuilt as a field wall (DSR 2011).

The tumble and infill south of Wall **4** were also very different to the deposits north of the wall: to the south were dark silty sands with shell and bone – so familiar from longhouse interiors. Finds are listed, although unfortunately not their locations, and included: nails, bone toggles, spindle whorls of bone and steatite, and a pierced whetstone. None of these finds would be out of place in an earlier than twelfth-century assemblage. Under those layers the triangle of surviving interior was packed with structural features and internal deposits, such as orthostatic wall-bench supports, stone boxes, hearth areas and layered spreads of ashy hearth material, areas of flagging and stone supports for internal partitions (1982, 8). This range of features echoes those of many other longhouses: that the bench supports and box were found *under* Wall **4** also suggests that Wall **174**, and the stratigraphically earlier features, may have belonged to an earlier longhouse. The excavators argued the burning

[21] Dimensions of 13m long by 5m wide are given for this building in the reports (e.g. 2005, 208) but it is very difficult to see in available plans from where the length originates: the uncovered area seems more absolute maximum 8m long.

spreads and metal-working debris resulted from the building's use in at least one phase as a smithy (Owen 2005, 208; 1993, 328). From the details given it is difficult to decide.

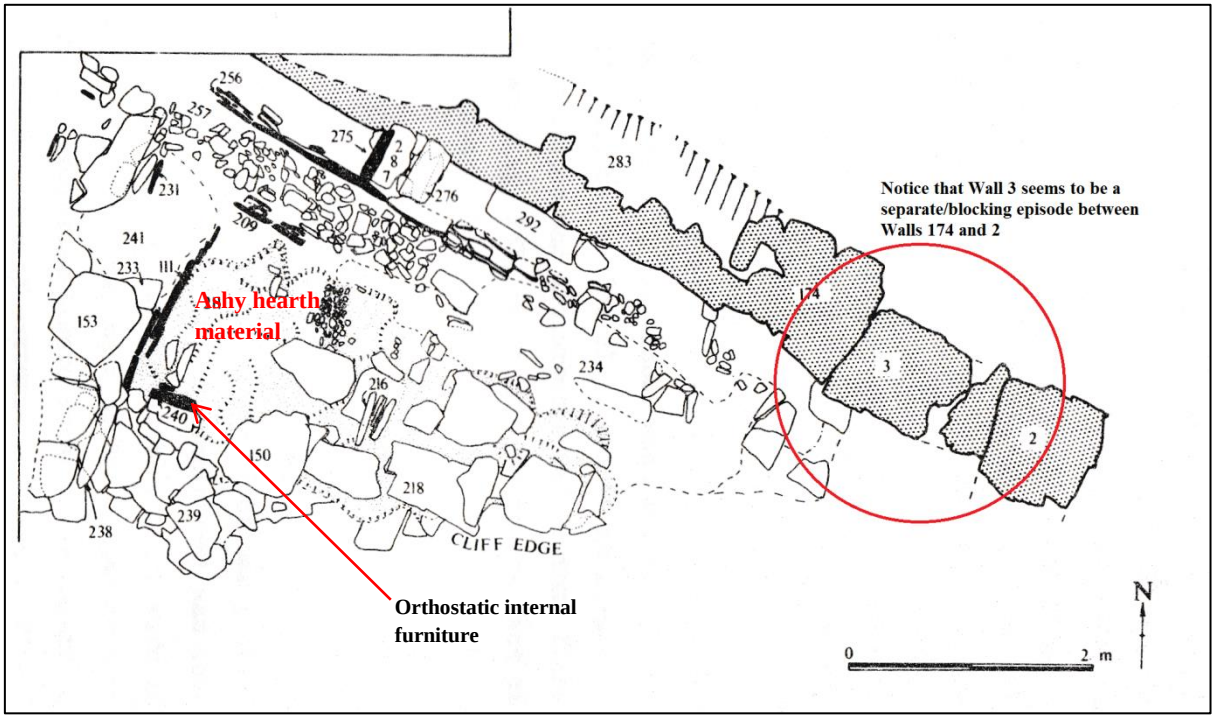


Fig 6.20: after Owen 1983, Fig. 4. Notice the orthostatic bench and other internal features: Wall 4 has been removed.

Wall **4** was 'built directly over the foundations of wall **174**' (1983, 7): this later wall was perhaps a boundary wall rather than a successor building. The chronological relationship of the southern building with the "hall" relies on interpreting a confusion of rebuilt wall-ends at the eastern end of Wall **4**. These comprise the "blocking" of the supposedly earlier hall to the north-east, but could be argued to be doing the reverse – that is, cutting off the earlier longhouse area from a later building. That building might even have begun life as an ancillary building annexed to the longhouse. Referring to Figs 6.18 and 6.20 it can be seen Walls **2** and **3** do not join, and the east end of Wall **3** is 'jagged and disturbed' (1982, 7); Wall **3** was also 're-used' (ibid. 8) when Wall **4/79** was built. The excavators criticise this incorporation of Walls **3** and **4** as builders' 'indolence' (1983, 7). Reading the reports it remains impossible to be certain of the relationships between Walls **2** and **1,** or Walls **2** and **3**: the latter were certainly not proven to be contemporary. Indeed 'no evidence remains to show how wall **3** was conjoined with wall **2**' (1983, 7). This uncertainty is hardly surprising, and possibly irresolvable, as the wall-ends were excavated in an eroding beach-section. However, as Wall **4** overlay

a sequence of deposits *butting* Wall **3** (1982)**,** this adds weight to the idea that Wall **4** was a late feature. Studying available drawings and photographs suggests Wall **3** could be later blocking of a doorway in Wall **174**, linked to a shift of settlement focus north-east to the "hall". The plastering which apparently linked Walls **1** and **2** might also be part of later changes. The crucial question remains whether the building represented by Wall **174** and the fragile triangle of interior to the south was in fact earlier than the structural phase apparently comprising Walls **1**, **99** and **176**. Wall **4** could remain as later than the "hall", but the hall could certainly be argued not to be the earliest building phase.[22] Unfortunately the longhouse interior perched on the edge of the cliff-section has probably not survived the last thirty years of erosion.

Conclusion

The site was certainly more complex than only '… the nucleus of (an) original major settlement…likely to date from the twelfth century' and associated with building of Cross Kirk (Owen 1983, 1). The stratigraphic sequences are sometimes unclear, the association of finds and structural phases is not secure and the dating unsupported; Owen admits to a confusing amount of rubble. 'An area of less than 100 square metres was opened, but sometimes the sheer volume of collapsed stonework in the trench was almost overwhelming, *with phase after phase of building and re-building'* (Owen 2005b, 198; my italics). Similarly in 1982 the excavators noted 'considerable re-building and continued and extended occupation over a period of time' (Owen 1982, 9). These building techniques correspond to those found on other multi-phase Viking-Late Norse mound-sites, along with characteristic midden-type material, ashy floors-spreads, internal features and finds.

Working in the early 1980s, the excavators of Tuquoy lacked the evidence collected here for the building methods used by Viking-Late Norse people on the windblown sands of Orkney. By the time it was abandoned and infilled the "hall" may indeed have been 'rather dilapidated… used for storage

[22] To the east of wall **99** another complex sequence of walls and structural features was uncovered, whose stratigraphical relationship with the buildings to the west is not really explored. Wall **138** was found running roughly parallel to wall **99**, but built of smaller beach-cobbles like the other Wall **195** in this area. Both wall remains were intriguingly curvilinear.

or some other relatively lowly function' (Owen 2005b, 200), having been reconfigured at least three times. This remodelling, and often reduction in size over time, of structures used for increasingly peripheral functions such as storage and animal shelters, is now a familiar pattern in Orkney. This sequence was observed at Skaill (Sandwick) and established in the present reappraisal of Skaill (Deerness). But the building was not necessarily 'in danger of falling down … fatally flawed' by being 'literally' built on sand (ibid. 200). Despite Owen's scepticism, other excavations have proved that long-lived, much altered and apparently perfectly stable buildings could be constructed on sand, making strategic use of extensive midden-type material, as recorded in the Tuquoy cliff-section. The concomitant re-use of stretches of walling in rebuilding so familiar from other sites is here dismissed as 'indolence' (Owen1983, 7), rather than recognised as a reliable building technique. 'All the excavated structures, though impressive in scale and conception were poorly founded. In every case, phases of re-building and other modifications were evident. Abandoned buildings …were filled with rich midden deposits' (2005, 208). The settlement at Tuquoy was not necessarily poorly founded: the rest of that description evokes every other complex mound-site.

At the moment the dating of Tuquoy is problematic. Insufficient stratigraphic detail has been provided to be clear about the chronological relevance of the important assemblage of imported pottery dated to the thirteenth to fifteenth centuries. Was it found *only* in association with the later, and difficult to understand, structural elements in the northern extension which overlay the hall wall and partitions? Or just in deposits which might relate to later Wall **4**? The runic inscription was dated by analogy with Maeshowe inscription XXII to the mid-twelfth-century but was of course re-used – found up-side down built into the last "partition" – providing only a *terminus post quem* for the last phase of partitioning in the hall. The only secure date – for the pit – extends the life of the site back to the ninth century.

Analogies have been drawn between the Tuquoy hall and other purportedly twelfth-century castles including Cubbie Roo's castle on Wyre and the Wirk on Rousay (Wickham-Jones 1998, 142-143). None of these really help with dating. *Orkneyinga saga* tells how, in about AD1145, Kolbein Hruga

built a fine stone castle on the island of Wyre (Pálsson and Edwards 1978). The site known as Cubbie Roo's occupies the summit of a considerable hillock; a rock-cut double ditch surrounds the main buildings, of which the earliest and most relevant is a small roughly square tower of undressed flagstones. Although argued to be twelfth-century there is insufficient evidence to date the tower (Clouston 1918b). The Wirk on Rousay is also a small square tower, with large hall-like building appended, about which little is known for certain (Owen 1993, 328; Wickham-Jones 1998, 140-141). At Skaill (Deerness) Site 1 revealed the fragmentary remains of a probably twelfth-century building constructed over an eleventh-century house (Buteux 1997). That square "strong room" had walls over two metres wide and sat in the corner of a larger building. Looking at these sites together the evidence is far from overwhelming, but there may have been, as part of a wider change in settlement arrangements, a mid-twelfth-century enthusiasm for building small, square towers, perhaps referencing the architecture of the cathedral and palaces being constructed during that century in Kirkwall. The building at Tuquoy is interpreted as a "hall" but, as its length remains unknown, might indeed be more like these tower/strong room buildings.

Pulling together all the available dating and stratigraphical evidence it could be argued that the "hall" building at Tuquoy was only one component – and a later one at that – of a multi-phase if not multi-period settlement mound in use from before the late-ninth century into the fourteenth, with the main activity perhaps ending during the twelfth century. Occupation at Tuquoy would then have overlapped with that at Langskaill (Westray; see below). This Viking-Late Norse settlement pattern thus mirrors what is being discovered by this research elsewhere on Orkney, with a complex multi-phase coastal settlement linked to a nearby chapel/church, and a slightly inland skaill-site. Together such settlements exploited and shaped the mound-scattered sea/bay landscapes they overlooked. In 1993 Owen proposed that Viking-Late Norse farms might be larger agglomerations of structures rather than simple, and perhaps dispersed and isolated, buildings (335). There is much more evidence now to

corroborate that hypothesis, including this re-assessment of the Tuquoy excavations in their landscape context.[23]

Summary of Mound-related Building Techniques: Table 6.02

Langskaill, Midbea (HY4383 4287): geophysics and excavation 2002-2004

Introduction

The working farm of Langskaill sits on the crest of a large hillock overlooking the links to the south-east and Berst Ness to the south; the excavated site lies just north of the farm buildings. In 2002-2004 geophysical survey and limited excavation uncovered an Iron Age souterrain and related settlement, into part of which was built a Viking-Late Norse longhouse. Archaeological remains from the Early Iron Age to as late as the fourteenth century were found. The souterrain [24] was fully investigated, along with small areas of the later buildings. The project brief was to record the fragile souterrain, so excavation was limited to a 10m^2 keyhole around new damage to the underground chamber. Unfortunately much of what is undoubtedly an extensive Viking-Late Norse site remains inaccessible under the farmhouse, its yard and the farmer's most useful field (www.orkneyjar consulted 17.9.2013). The longhouse sits on a sand-mound, overlooking prehistoric structures and monuments. Its building techniques and structural features show striking parallels to the East Mound longhouse at Skaill (Sandwick).

The Langskaill longhouse: context

The longhouse at Langskaill was built in an area with many prehistoric mounds, including the broch at the Knowe of Burristae, indeterminate mounds to the north and north-east, mounds on the links and out on Berst Ness and the Knowe of Skea. Many of these were mound-related structures of some

[23] Olwyn Owen also argued that Tuquoy was not a farm-mound *sensu stricto* (1993, 335) but does not really explain why. Perhaps because it apparently had no prehistoric roots (which is arguable), or the formation processes were similar but less intensive, or just that the first definition of farm-mounds encompassed only an accumulation of organic deposits without structural remains. It is a great shame that the present lack of available data about midden-type material precludes detailed investigation of this crucial settlement mound component.
[24] Souterrains are enigmatic stone-built underground passage chambers giving access to a buried chamber and usually associated with settlement; the vast majority are dated to the Iron Age with the earliest from the Late Bronze Age. Their function is much debated.

significance. Apart from the broch, recent work on the Berst Ness headland mentioned above, revealed an unusual and obviously important Iron Age cemetery, mortuary house and other buildings (Gibson 2008, 46-49; Moore and Wilson 2005, 328-332).[25] This site, like the broch, must have been visible to any ship sailing into safe landing at the Bay of Tuquoy: the excavators describe how three extra external 'skins' of masonry were added to its central building creating 'a more monumental façade' (Moore and Wilson 2005, 329). Viking-Late Norse people had settled an area already distinguished by important buildings, including perhaps the Iron Age structures at Langskaill itself, and notable for a striking prehistoric funerary landscape. The area was both economically attractive and had existing social significance.

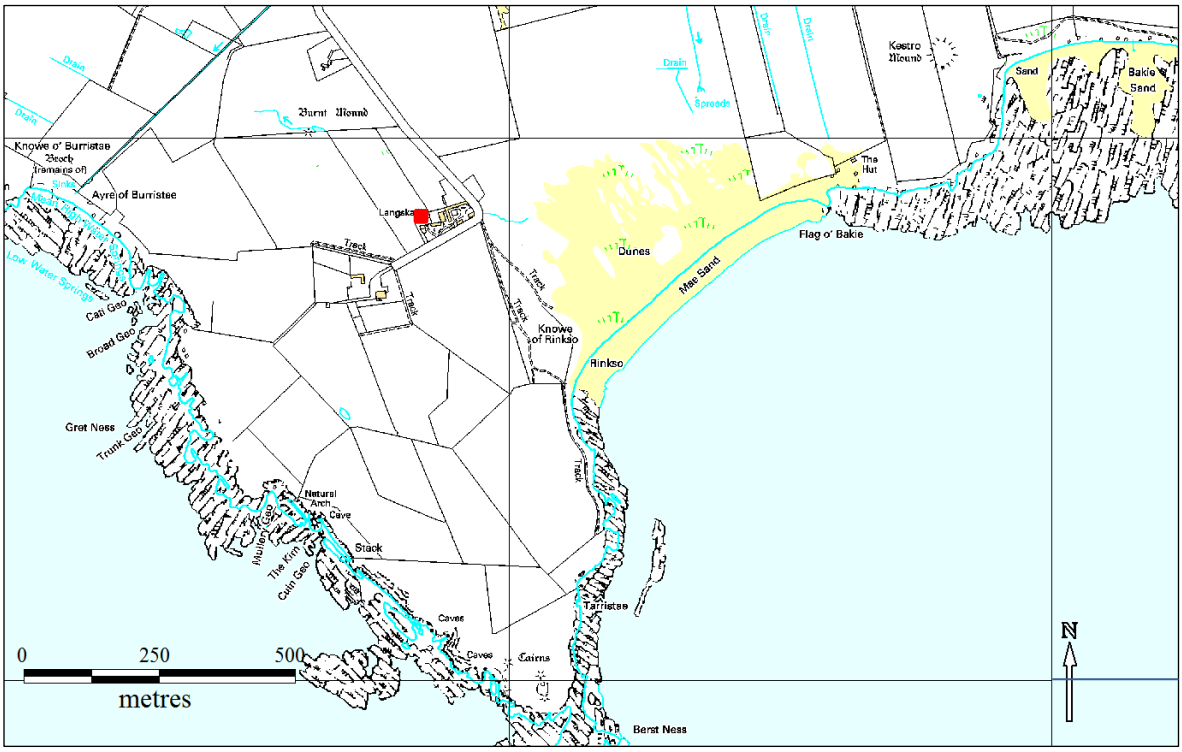


Fig. 6.21: the Langskaill area with the excavation site marked in red.

The general character of the peninsula persists into the Viking-Late Norse period. There is evidence for much settlement, some potentially high-status, with accompanying religious structures.[26] A distribution emerges of dispersed but far from isolated settlement. The twelfth-century chapel at Cross Kirk may have been founded originally as the private chapel of an important, well-resourced leader.

[25] Over one hundred Iron Age burials were recorded beneath, surrounding and even built into the complex of buildings on the high point of the Ness.
[26] Three of the uninvestigated coastal mounds on the Ness of Tuquoy may have encompassed multi-period or Viking-Late Norse settlement (nos 5, 73 and 77), as may one on the west coast (no. 15).

Together with the neighbouring site of Tuquoy discussed above this suggests the valuable coastal landscape was dominated and exploited by a locally powerful person. The site at Langskaill must been connected into this social network.

The place-names complement the archaeological evidence. The excavators of Langskaill suggested the name Langskaill 'denotes a building of high status' (Moore and Wilson 2003, 32; pp. 265-7 for discussion of the skaill place-names). The presence among the finds of glass and imported pottery implies a well-connected settlement.

The Excavation (Compiled using: Moore and Wilson, 2002, 2003a, 2003b, 2005a, 2005b)

A hole first appeared above the souterrain north of the farm in the late 1960s but was covered over and forgotten. The site was re-discovered dramatically in 2002 when a tractor collapsed into the souterrain;[27] the truncated remains of a rectangular stone-built structure, with an associated midden containing steatite, were recorded above and west of the chamber.

Summary

Geophysics in 2003 revealed a rectilinear anomaly to the north-west of the breach in the souterrain with a curvilinear anomaly to the south-east. This suggested a longhouse 20-25m in length above the souterrain, with interesting hints of a second parallel building, and underlying structures built into sand. Limited excavations in 2003-2004 revealed several phases of activity on the site (Moore and Wilson 2003a). The last major phase appeared to be an eleventh- to thirteenth-century longhouse, which had been extensively modified during its use: the relatively small area uncovered of the north-east end of the structure had apparently started life as a byre-area before being altered for domestic use. Even this 10m^2 examination revealed a familiar sequence of modification and rebuilding over previous structural elements. The eastern side of the longhouse had been built into the remains of a badly-truncated, curvilinear Iron Age domestic building. The excavators at Langskaill commented that

[27] The Langskaill souterrain chamber was oval, about 5m by 3m with a roof supported by one metre high stone-built columns.

this might '… signify a desire to retain an established habituation despite deterioration in the building fabric. It may also represent a practical solution when building in stone, since existing buildings can provide … [in sand] more solid foundations for redevelopment' (Moore and Wilson 2003a, 13). The remains of other structures were found around both phases of building, as well as midden and yards thought to relate to the longhouse. The souterrain had also been re-used by the inhabitants of the longhouse, initially as a store before the chamber was infilled with midden-type material. The presence of pottery dating up to the fourteenth century suggests that midden storage may have continued beyond the life of the longhouse. The activity generating that midden must have occurred somewhere nearby.

At least four phases of Viking-Late Norse activity were recorded in the longhouse. An area of the building about 5.6m wide by 11m long was uncovered, revealing only the east wall of the north end of the building (Fig. 6.22). The wall had internally rough-faced stone courses revetted into rubble and backed by silty midden-type material. There was considerable evidence for modification of features, including the addition of internal partition walls, new paved areas and side benches, and the build-up of occupation layers within the house, including floor spreads of silty sand with peat-ash. An interesting parallel discovery was made to a find later made in the East Mound longhouse at Skaill (Sandwick) (DSR 2011). Underneath the remnants of a late-phase paved surface and a partition wall, bedded in peat-ash rich sandy silt, were discovered an almost complete bone comb, a copper alloy object and a bone comb fragment.[28] These objects may have been laid to mark the end of one phase of use or ownership, and the beginning of significant alterations in the use or layout of the longhouse.

The earliest phase explored was linked to a central drain, stone-lined and capped with flags to create a paved walkway, and an arrangement of chock stones, which probably supported large orthostatic slabs at right angles to the east wall, creating stall-like compartments. This first phase may have been a byre,

[28] At Skaill (Sandwick) deliberately placed under flagstones laid during the final reconfiguration of the longhouse's ancillary building, and marking the abandonment of the longhouse itself as a domestic building, were discovered a complete Viking-Late Norse comb, a copper alloy candlestick and sherds of a probably late-twelfth-century imported glazed pottery (Harrison forthcoming 'The Excavations', in Harrison and Griffiths).

in which case either the byre-end of a larger building, or the byre-end extension of an earlier building to the south-west. This conjunction of drain and chock stones was very similar to that discovered in the byre-end of the East Mound longhouse, Skaill (Sandwick) (DSR 2011). It is difficult to tell whether two small hearths belonged to this phase but they may easily have related to the later and more obviously domestic phases of the much-modified building.

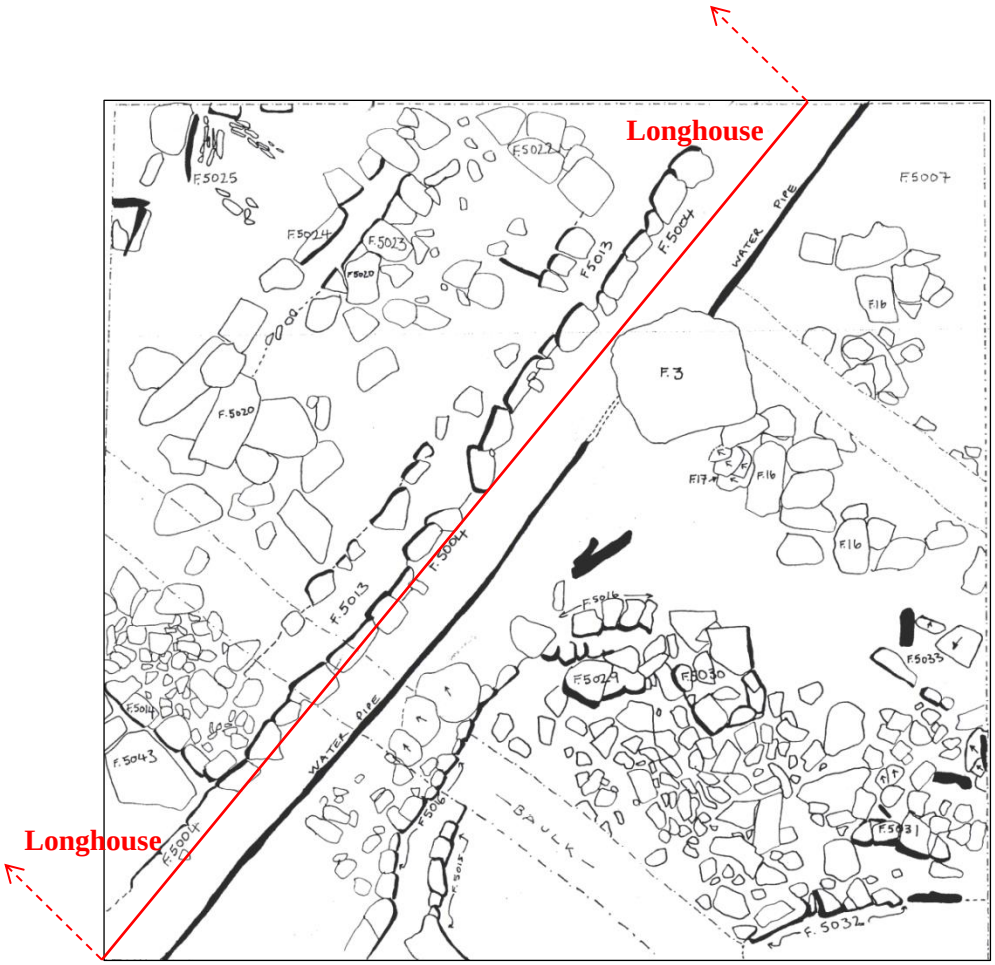


Fig. 6.22: adapted from Moore and Wilson 2003a.

The two middle domestic phases encompassed several changes in internal structural features and also the laying of new areas of paving, in particular area **F [5043]** under which the bone comb was discovered. These phases were also related to the creation of many charcoal-rich, ashy floor-spreads and thus to the use of the hearths. All the accumulated floor layers were sandy silt with peat-ash. Some of these second phase floor deposits were sealed by other internal fittings, including possible stone bench supports running parallel to the long east wall **F [5004]**. Finds included steatite sherds, iron and copper alloy objects, and worked bone artefacts, as well as the ubiquitous shell and animal bone. The

main aspects of the final phase of modification were the creation of the "bench", which covered the byre-related chocking stones; the erection of two internal walls – differently-built to the east wall – and the laying of more paved areas. At this point cross-wall **F [5014]** was built over the deposit containing the comb. Distinguishing what happened in each phase is extremely difficult in these much altered longhouses, and this one had been badly robbed-out and truncated. Yet, even on the basis of interim reports, Westray's Langskaill clearly echoes the complex history of other eleventh-century halls. The finds from the midden in the souterrain led the excavators to suggest that the longhouse may finally have stopped being used as late as the thirteenth or fourteenth century; it is also possible that the main settlement moved during the twelfth century.

Although a relatively small investigation, this longhouse has been dealt with in some detail because it provides such an interesting parallel to the East Mound building (Sandwick).

Summary of Mound-related Building Techniques: Table 6.02

Fig. 6.23: Moore and Wilson 2005b, 101; looking east, from the longhouse into the souterrain and across the midden area.

Conclusion

The excavators at Langskaill suggested there was Iron Age settlement there from the second- to third-centuries through to the sixth- to seventh-centuries, meaning a period of overlap in use between Langskaill, the funerary complex on the Knowe of Skea and the broch on the Knowe of Burristae. Hazel Moore argued that the replacement of the Pictish settlement at Langskaill by the longhouse, at the same time as the funerary complex on the Knowe of Skea stopped being used, demonstrated an abrupt and major cultural change corresponding to that change of settlement use. She implied a sudden take-over of land and settlement organisation by Viking settlers.[29] The dating is not yet available to support this argument and it seems dangerous to suggest an abrupt change when so little of the Langskaill site has been investigated.

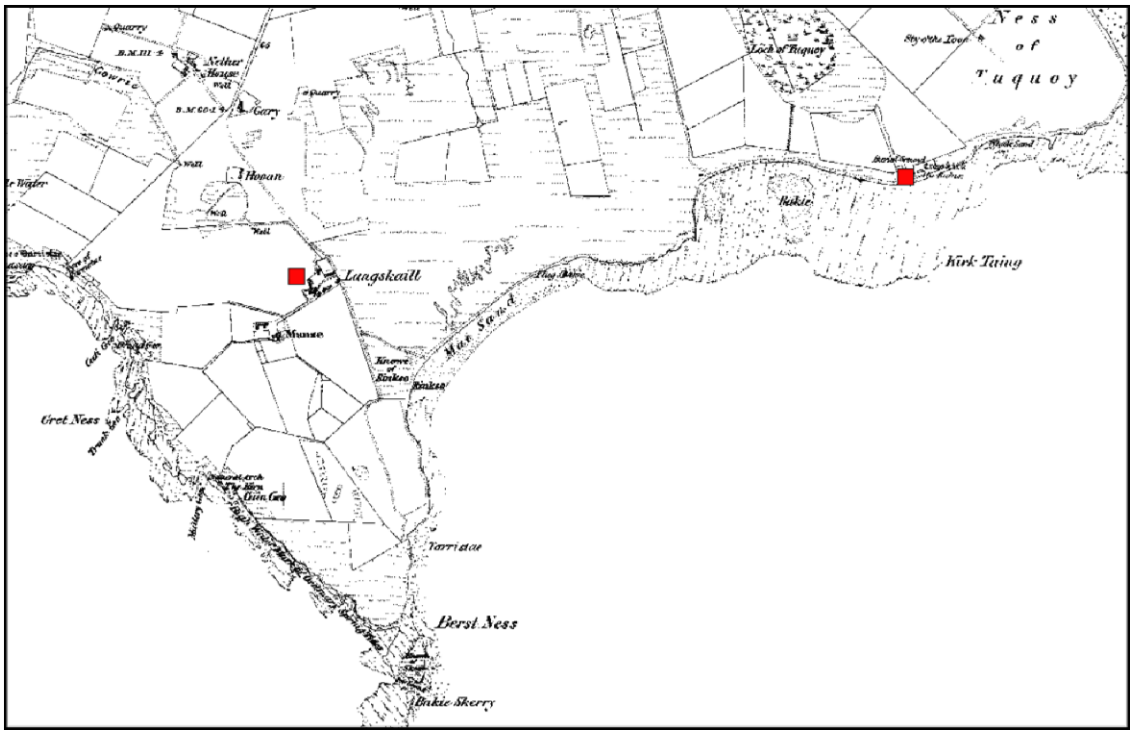


Fig. 6.24: OS map 1882, showing the relationship between Langskaill and Tuquoy.

It was also suggested that the first phase of the longhouse may have been part of the earliest Viking settlement in the area (Moore and Wilson 2003a). This raises questions about the relationship between this site and the settlement at Tuquoy. There are no scientific dates yet from Langskaill but it is likely

[29] (http://www.orkneyjar.com/archaeology/2005/01/13/westray-dig-points-to-brutal-viking-invasion-of-the-isles/ last consulted 17.9.2013).

the two sites were occupied concurrently in the eleventh and twelfth centuries. The earliest Viking-Late Norse date for the area at the moment comes from the water-logged "pit"/byre at Tuquoy (ninth-century), which was probably associated with a farmstead. Tuquoy was perhaps the main residence and linked with Langskaill. There are other possible sites of Viking-Late Norse settlement on the east and west coasts of the Midbea peninsula, and the overall picture is one of considerable settlement scattered across a well-exploited agricultural landscape, with the fine church later evidence for the local high status of those controlling the peninsula.

Area 5: Rack Wick Township: Figs 6.03 and 6.25

This section will deal with the mound archaeology of the area to introduce a discussion of excavations at Quoygrew. Unlike either of the two other excavated sites the work at Quoygrew has been fully published. The excavations could not explore the complex site fully, but the publication makes the best use of the material gathered. Those parts of Quoygrew uncovered and reported on provide something of a contrast to Tuquoy and Langskaill.

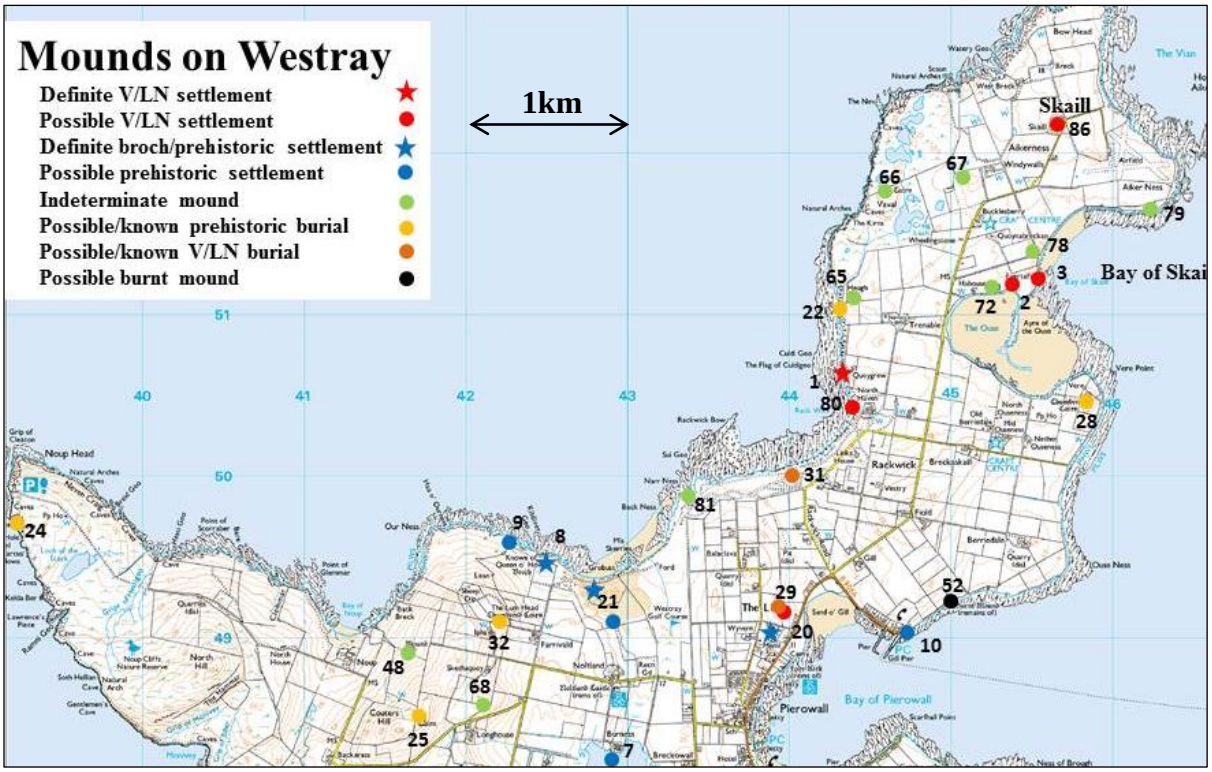


Fig. 6.25: archaeological mounds in Rack Wick.

Introduction: the archaeology of Rack Wick

This area stretches north-east from Pierowall Bay to Grobust Bay in the west and to just north of the farm of Trenabie. Rack Wick encompasses extensive areas of windblown sand with excellent beaches for landing boats, in particular the Bays of Pierowall, Rack Wick and Grobust. No nausts are recorded for the bays in Canmore but several were mapped on the shore west of New Haven by the team excavating at Quoygrew (Barrett 2012, 26-7); Mackenzie's 1750 chart recorded good fishing grounds for cod and ling off the Rack Wick coast.

The known prehistoric archaeology is concentrated around the Bay of Pierowall and at the Links of Noltland (nos 20 and 21).[30] Niall Sharples' 1983 excavations at Pierowall Quarry, on the south-eastern end of the low ridge running across the neck of land between the Bay of Pierowall and Grobust Bay, revealed the remains of a complex, multi-period prehistoric site (Sharples 1984). The primary feature excavated was a middle-third-millennium BC chambered tomb. This area was abandoned at the end of that millennium until the Early Iron Age when a large roundhouse was built over the demolished tomb.[31] Although the majority of the discoveries around Pierowall were antiquarian, or made piecemeal as Pierowall developed, and relatively poorly recorded, these finds attest to significant prehistoric activity around the sandy bay (nos 20 and 29); a possible broch-site was noted on northern arm of the Bay of Pierowall (no. 10). One other mound is particularly significant: the chambered cairn identified at Vere (no. 28).

The sandy landscape has not surprisingly produced considerable – if not detailed – evidence for Viking-Late Norse settlement. Activity around the Bay of Pierowall was especially important although the exact nature of the settlement remains obscure. Pierowall appears in *Orkneyinga saga* as *Hofn,*

[30] The extensive settlement on the Links of Noltland was discussed above.

[31] The report also provides interesting information on windblown sand, large-scale deposits of which were only visible after the abandonment of the roundhouse; the sand then completely covers the mound (Sharples 1984, 77). The 1492 *Rentals* chronicle the 'blawin' to Birrowne' – blowing to Bergen – of the northern Westray townships of Brough, Rackwick and Aikerness, an episode that suggests the whipping away of light sandy soils from the flat land by the winds of increasingly stormy weather (Thomson 1996, 61). It is important to differentiate between sustained episodes of sand deposition due to changes in climate and land use and the sweeps of sand thrown across sites by a major storm. The latter are frequently seen in excavation as thin sandy layers and lenses between episodes of activity.

described as a village and connected to one of the powerful leaders controlling Westray (Pálsson and Edwards 1978, ch. 102). Over the years there have been '…many discoveries of midden material between the houses and the Bay' in the village (OSMR 00921). In the links behind, in locations not precisely known, burials from an extensive pagan Viking cemetery were uncovered between the seventeenth century and 1863. During the nineteenth century records of the grave-groups, their associated weapons and other grave-goods and even the actual number of burials became irredeemably confused. In a thorough reanalysis Arne Thorsteinsson identified at least 17 inhumations with weapons and ornaments of ninth- to tenth-century date (1968). The graves were divided into three groupings: those with damaged or absent skulls accompanied by horse skeletons; a group dominated by female burials; and four seemingly isolated graves with grave-goods. Pierowall's description in *Orkneyinga saga* coupled with this large cemetery behind the beach suggest this may have been a beach trading-site. It is in any case likely that Viking-Late Norse settlement on the natural harbour would have dominated the immediate settlement landscape.

Fig. 6.26: part of the metre high erosion section at New Haven looking north-east.

The excavation of Quoygrew is discussed below, but needs to be considered in relation to New/North Haven, [32] recorded as *Biggings* and *Stave* on the 1882 OS map (no. 80; Fig. 6.27), just south-west of

[32] North may apply to the northern group of buildings and New to the entire farm – reflecting its origin in two settlements.

Quoygrew on windblown sand. The modern farm, 60m from the coast, sprawls across an extensive eroding mound with stonework, midden-type material and peat-ash visible in its long coastal exposure (Fig. 6.26). A test-pit was excavated during the Quoygrew project on the coast at New Haven and the lowest midden deposit yielded twelfth-century pottery, providing a Late-Norse rather than a prehistoric start-date for that area of the section (Test Pit 108; Barrett 2012, 30). A test-pit on the eastern side of the mound was unable to reach anywhere near the mound's base; the earliest OSL date was AD1435-1535 and may simply date a build-up of sand over earlier settlement (Test Pit 7; ibid. 30). This date is interestingly similar to that for the blanket of sand blown over the abandoned longhouse at Skaill (Sandwick) during the deteriorating weather of the Little Ice Age which began AD1250-1300 (Miller et al. 2012). James Barrett suggested Viking-Late Norse settlement may have moved from the *Biggings* and off the sand to Quoygrew, in a shift off sand similar to that noted by Sharples in the Western Isles (Barrett 2012, 46), but this hypothesis must remain open to debate while much of the mound at Quoygrew remains unexcavated and the *Biggings* undated.

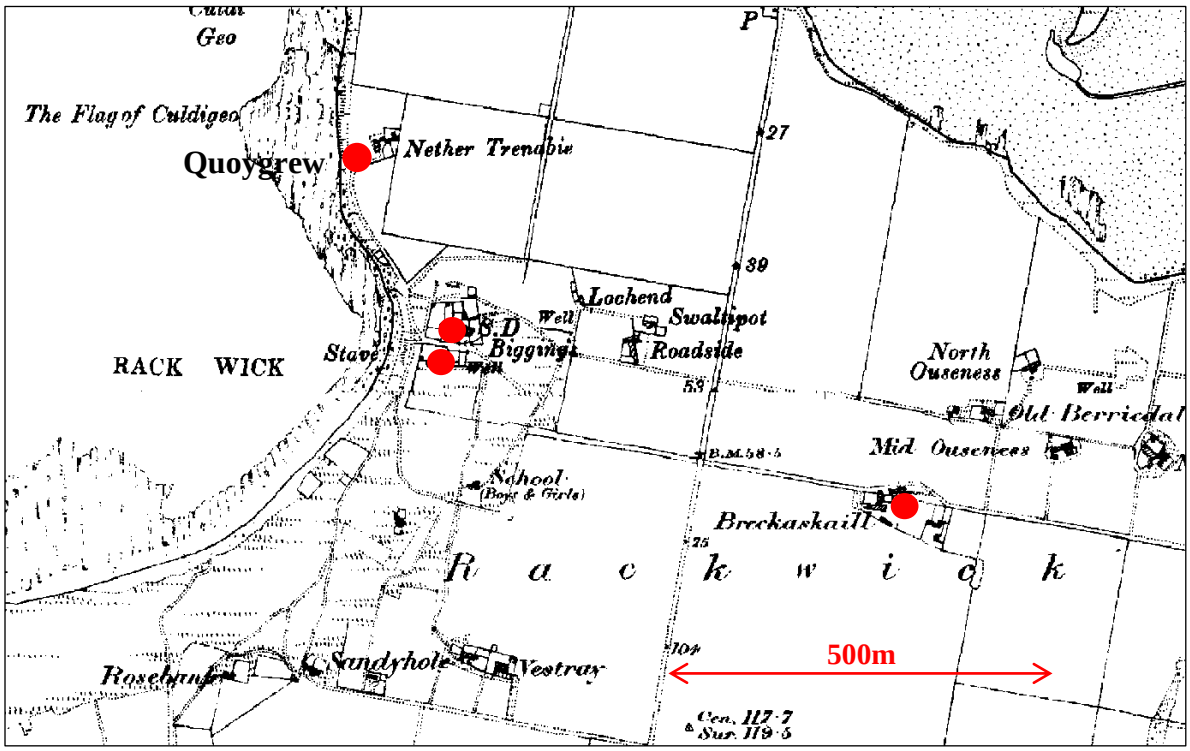


Fig. 6.27: Biggings, Stave and Breckaskaill on the 1882 map, with Quoygrew's location marked (then Nether Trenabie).

There is a skaill-name in Rack Wick at Breckaskaill ON *brekka-skáli* ('hall on the slope') (Fig. 6.27). This skaill-name may be linked to a now vanished Skaill/Langskaill site, plausibly one located under

New/North Haven. Breckaskaill lies on a hill shoulder only 600m east of and overlooking that site. The otherwise straight improvement road running from New Haven east past Breckaskaill bends north round its settlement mound.

There could have been earlier Viking-Late Norse settlement at either the *Biggings* or Quoygrew (see below), or indeed both, with the proximity of a skaill-name at Breckaskaill suggesting a skaill-area focus for settlement. The lower layers at the *Biggings* might stretch back well before the medieval period. The *Biggings/Stave* place-names themselves suggest there was probably significant *Later* Norse settlement here too, contemporary with a specialist fishing settlement at Quoygrew (see below). This was therefore potentially another important cluster of Viking-Late Norse settlement, benefiting, at least initially, from the proximity of the likely beach trading-site on the Bay of Pierowall.

The excavations at Quoygrew

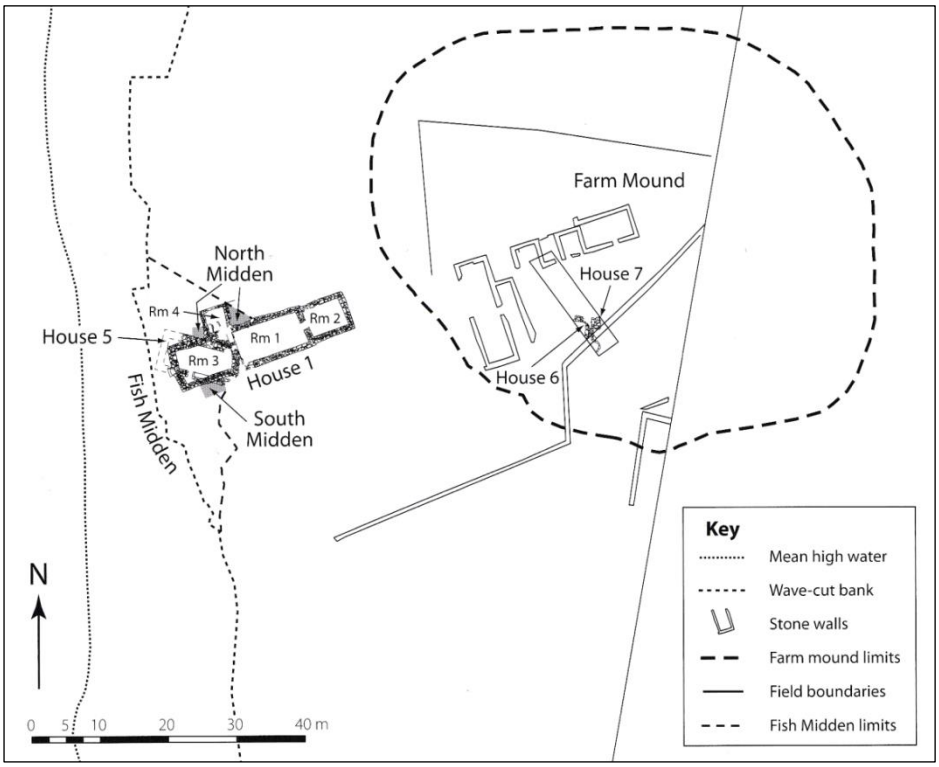


Fig. 6.28: from Barrett 2012, 45.

Archaeological deposits were first recorded in 1977 (Hope and Wickham-Jones 1977, 25) and interpreted, on the basis of a tiny evaluation excavation, as a fishing-focused community of Viking to

medieval date (Barrett 2012, 43). In 1996 the site was assessed by James Barrett: subsequent excavation from 1997 to 2005 concentrated on two mounds associated with the eroding cliff-section midden. The first year of work in 1997 focused on that sea-cut bank and 20m of the eroding fish-bone rich section was cleaned, recorded and sampled for ecofactual material.

This cliff-edge area was referred to – for self-evident reasons – as the Fish Midden. The low mound behind had a diameter of c. 40m; the mound inland to the east, called the Farm Mound, was slightly larger at c. 50m. Both mounds were formed of complex layered-up sequences of buildings, middens and anthrosols, but revealed different sedimentary characteristics and ecofact inclusions (Barrett 2012, 45).[33] Excavation on the inland mound was constrained by ruins of the 1930's croft, but small interventions discovered middens and two buildings: Houses 6 and 7. These probably twelfth-century buildings could not be completely excavated and the relationships between middens and structures remained unresolved. In 1999 excavation began on the coastal-mound behind the midden section, where open Area F reached 13.8m by 31.3m maximum. Two buildings were uncovered there: the whole of House 1 with rooms 2-4, and most of underlying House 5. House 5 was built in the eleventh to twelfth centuries and three phases of use were recognised before its abandonment; House 1 was constructed around AD1200. There was clearly a major re-organisation of settlement at the end of the twelfth century. Middens were piled against and around these houses and infilled them after they were abandoned as dwellings. The Fish Midden seen in section merged with these more inland middens. Settlement on the two mounds as excavated began in the tenth century, lasting until the last inhabitants left the croft in AD1937.

Only Phases 1, 2 and 2-3 of the excavation therefore are relevant to this study. The earliest, tenth-century Phase 1 comprised a palaeosol and an overlying midden layer, found towards the bottom of small trenches in the Farm Mound (ibid. 58). The midden accumulation implied a building-complex developed on the Farm Mound during that century. However, the houses of those who created the midden-type material were not discovered and have to be 'inferred' (ibid. 275); they probably underlie

[33] Anthrosols or plaggen soils are augmented cultivation soils created by the repeated addition over lengthy periods of ash, peat, farmyard manure and domestic midden; see Simpson et al 1998a, 1998b and 2005.

Houses 6 and 7 on the Farm Mound.[34] House 7 was described as a semi-subterranean building and represented by a short stretch of wall dug into underlying midden. Several superimposed hearths had been built into a niche in the wall.[35] A corner of House 6 was superimposed on House 7 by building against the earlier structure. North of these walls were signs of further walling, paving and midden layers: 'They represent a palimpsest of building and destruction episodes that require open-area excavation to disentangle' (ibid. 64). These layers seemed to belong to the eleventh to twelfth centuries (Phase 2). Unfortunately, the trench had then to be closed down due to lack of resources.

Phase 2 otherwise consisted primarily of deposits underlying House 5 in the Coastal Mound and three phases of use of House 5, before its abandonment during AD1130-1219. House 5 was built in the eleventh- to twelfth-century period but constructed over *existing* layers of paving and midden; midden produced by the inhabitants of an earlier dwelling or byre nearby. The house had side-aisles with the roof supported on the walls; the move away from internal roof-post supports was dated broadly by analogy with the rest of the Scandinavian world to the tenth to eleventh centuries (2012, 59). Its length was inferred from eroding remains in the cliff-section to be c. 10m, by c. 3.9m wide internally. The lack of any stone demolition rubble suggested to the excavators that the house was constructed of turf with an interior five-course-high stone-lining.[36]

Fig. 6.29: House 1, Quoygrew looking west.

[34] Barrett 2012, 56: Table 4.3: hearth of House 7, AD1045-1258AD; post-abandonment fill of House 6, AD1035-1210.
[35] It is conceivable that this building, rather than essentially semi-subterranean, was simply dug down into midden layers like so many other eleventh- to twelfth-century Viking-Late Norse structures.
[36] The presence of a turf superstructure might have been expected to produce an abandonment layer rich in turf building remains: nothing of that nature is reported.

Phase 2.2 was the earliest phase of House 5. A paved drain ran down the centre, with orthostatic stones marking the edge of side aisles (these may have been side benches), and there may have been a central hearth. A natural subsoil floor was rapidly augmented with peat-ash sweepings from the fire(s) in the east. As might be written of all the Orcadian longhouses: '…many floors had built up slowly from repeated sweepings of fireplace ash' (2012, 52). The western end of the building was distinguished by particularly midden-rich floor layers. A familiar pattern of alteration followed in the next two phases: new areas of flagging were laid, small settings of upright stones represented new internal features, changes were made to the side aisles/benches and the far eastern end of the house seems to have been established as a narrow passage way-like area (Fig. 6.30). The southern entrance was blocked and a new doorway created. The relatively small artefactual assemblage was 'dominated by objects of Norwegian provenance' (2012, 63).[37]

Phases 2-3 also encompassed midden-type deposits and layers in the Fish Midden and the Farm Mound (overlying those discussed above and different in character) (2012, 48). The Fish Midden during Phase 2 was held together by a matrix of peat-ash; whereas midden in the Farm Mound trenches from the same phase included a more varied mix of turf construction material, animal bedding, fish bone and peat-ash (2012, 59). The excavators interpret the difference as indicating that fish-processing waste was accumulated in the Fish Midden and marine refuse from consumption stored in the Farm Mound middens.

The turn of the twelfth-thirteenth centuries (Phase 3.1) was marked by the levelling of the area above House 5 for a major re-build (Fig. 6.27). House 1 (c. thirteenth-sixteenth centuries) was superimposed on the remains of House 5 on a different alignment. House 1 has been consolidated for display (Fig. 6.28).

Summary of Mound-related Building Techniques: Table 6.02

[37] Five schist hone-stones, four Ashby Type 9 combs, a fragment of a whale bone weaving sword and half a dozen sherds of steatite, two of which were of Norwegian origin.

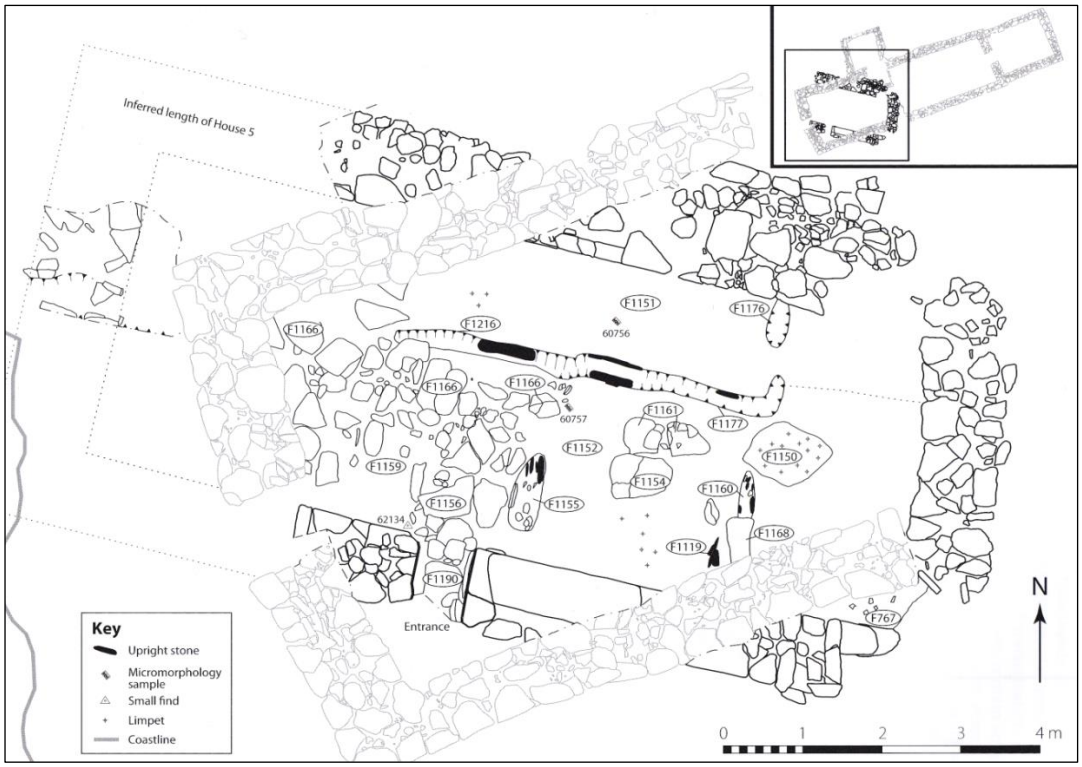


Fig. 6.30: House 5 Phase 2.3, from Barrett 2012, 61.

Conclusion

The farm-mound at Quoygrew may have been an earlier focus of settlement, with a building-complex from which the tenth-century midden components at the base of the mound derived. The spread of buildings with a probable eleventh- to twelfth-century date, from House 5 on the coastal mound to the hints of Houses 6 and 7 on the farm-mound, attest to a relatively extensive settlement. Perhaps House 5 – from which so few domestic artefacts were collected – was an ancillary building and the heart of the longhouse complex still lies beneath the obstructive croft ruins. From the published excavations it is impossible to be certain. There are indications in the phases designated to House 5 of a complex history which might encompass changes of use and even undetected extensions to either end. So Quoygrew provides something of a contrast to Langskaill and Tuquoy. The archaeology as reported cannot elucidate the heart of the Viking-Late Norse tenth-twelfth century settlement, and its overall character remains obscure. However, Barrett suggests that from the eleventh century this was a dependent fishing-dominated community, paying rents and taxes to someone higher up the hierarchy and perhaps not taking any more significant role in local society. We cannot be certain of that

interpretation, but it deals elegantly with the available evidence and might reasonably characterise the later settlement.

Nonetheless, the onamastic evidence might raise Later Norse Quoygrew a little in the local settlement hierarchy. On the First Edition Ordnance Survey map the settlement is called Nether Trenabie so is one of the forty or so Orkney *býr*-names thought to designate fairly substantial farmsteads.[38] Only on the following OS map was Quoygrew so named, using ON *kví* as at Tuquoy and as supposedly applied to a "secondary settlement". The relationship between Quoygrew and the probably multi-period, complex settlement on the significant mound at New/North Haven (*Biggings)* on the sandy links of Rack Wick Bay was considered above. If Quoygrew became a more dependent farmstead from the later Viking-Late Norse period perhaps the contemporary and dominant local farm would be found under the Biggings?

It has been suggested on the basis of evidence from the Western Isles, and in particular Bornais, that Norse settlement tended to move off the sand as the Viking-Late Norse period progressed (Sharples 2004). Barrett proposed that shift may have occurred earlier than the twelfth century in Westray and that Quoygrew was founded as a consequence of that movement. But this argument depends on there being no earlier than eleventh-century settlement at Quoygrew. And that is not certain. There clearly was fairly major twelfth-century settlement change there, as that was the point at which House 5 was levelled and a new structure raised on a different alignment. That seemed to reflect a change in economic emphasis. Quoygrew became a settlement specialising in fishing and perhaps dried fish and fish-oil production; it needed a coastal location and it was perhaps economic change in the context of wide social transformations that governed the nature of settlement change at this point.[39]

[38] The farm then and still called Trenabie seems no older than eighteenth-century, so the Quoygrew/Nether Trenabie site may be the original *–býr*.
[39] Westray and Papa Westray may have been islands especially suited to engaging in the developing stock-fish and fish-oil production: see also the excavations at St Boniface, Papa Westray (Lowe 1998; pp. 275-9).

Broch sites

Viking-Late Norse settlement, it has been argued, is usually found close to broch sites (Gelling 1984; Buteux 1997; Leonard 2011). This is not true of Westray. If there is a relationship between brochs and Viking-Late Norse settlement it is created by inter-visibility rather than proximity. The Viking-Late Norse site of Pierowall may have been overlooked by brochs on the enclosing arms of the bay: the northern broch (no.10) being paired with another broch on a summit to the south.[40] The possible Viking-Late Norse settlement on the northern shore of the Ness of Tuquoy looked across to the broch at Hodgalee (no. 14). The broch at Peterkirk may have been visible across the Bay of Tafts to later settlement in the bay. The site at Langskaill (no.15) also looked down towards a broch.

The Skaill-names

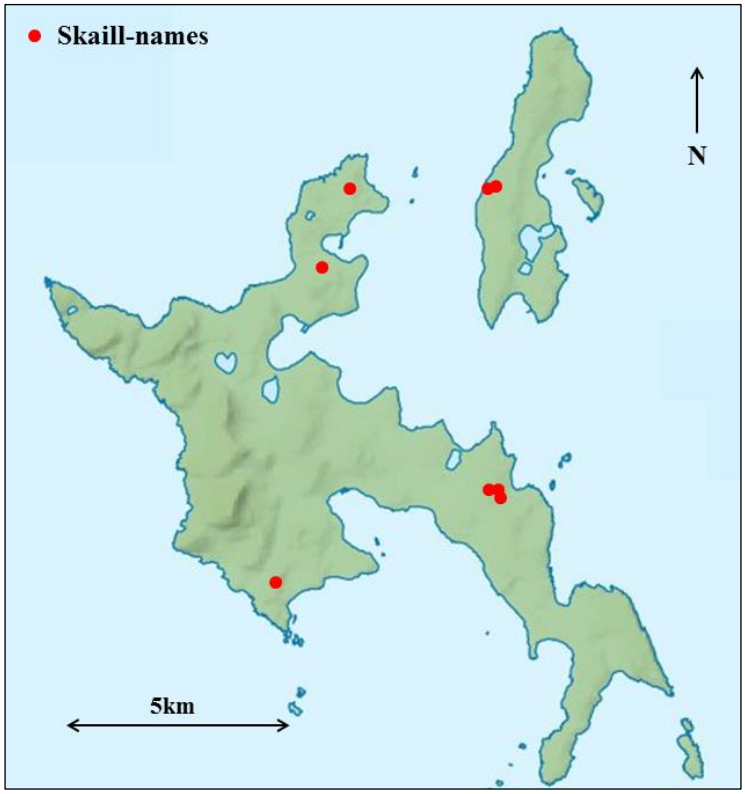


Fig. 6.31: Skaill place-names in Westray.

[40] The northern broch-mound was built over at the end of the nineteenth century and the relevant OSMR records scoop up a number of antiquarian finds for what is now an area of industrial buildings near Gill Pier (see no.10) There is much less convincing evidence for the site of Brough (no. 17), up on a summit overlooking the Bay of Pierowall.

The 1879 *Original Name-Book* lists nine skaill-names for Westray and Papa Westray (Fig. 6.31).[41] One applies to a bay in the north-east of Westray. The remaining eight names are easily identifiable. Six are on Westray: the large farm of Skaill in Aikerness in the north, linked with a possible settlement mound (no. 86); Breckaskaill in Rackwick; one Langskaill in Midbea near Mae Sand (no. 15) and another near Skel Wick Bay in the south. South Langskaill and West Langskaill are also listed surrounding the Skel Wick Langskaill. Both the northern Skaill and the Langskaill in Midbea are recorded in the *Original Name-Book* as substantial farms owned by the Earl of Zetland.

West Langskaill is marked on the 1882 OS map but missing from the modern map (Figs 6.32 and 6.33). Indeed the cluster of skaill-names on Skel Wick Bay is a fine illustration of the subtle shifting of names over time. The modern map shows Langskaill on a rise a few hundred metres west of the bay-edge, flanked by South Langskaill, c. 200m to the south-west, and North Langskaill the same distance to the west-north-west. However, North Langskaill was *not* recorded in the *Original Name-Book*, while Langskaill and South Langskaill appear both there and in the same locations with the same names on the 1882 map and the modern map. On the 1882 map modern *North* Langskaill's cluster of buildings is un-named but marked as a school, while a smaller farmstead, to the school's south-west and immediately west of Langskaill, is recorded as *West* Langskaill. Today, West Langskaill survives as outbuildings, although with evidence in the immediately surrounding grounds of a different arrangement of property boundaries. Hugh Marwick suggested that the name Skel Wick bay, which gives the district its name, came from ON *skáli* and *vik* ('inlet/small bay') and derived from an 'original' Langskaill that overlooked the Bay (1952, 17). The group of skaill-names combined with the coast-edge Cleat settlement mound with known Viking-Late Norse archaeology provides another example of potentially linked inland and coast-edge mound settlement sites of that period.

[41] *Original Name-Book*: Orkney Vol. 26: Westray and Papa www.scotlandsplaces.gov.uk : last accessed 13.12.2013.1. Skaill, Westray: p. 8; 2. Bay of Skaill, Westray: p. 22; 3. *Backiskaill, Papa Westray*: p. 30; 4. *Breckiskaill, Papa Westray*: p. 32; 5. Breckaskaill, Westray: p. 103; 6. Langskaill, Skel Wick, Westray: p. 205; 7. South Langskaill, Skel Wick, Westray: p. 205; 8. West Langskaill, Skel Wick, Westray: p.206; 9. Langskaill, Mid Bea, Westray: p. 236.

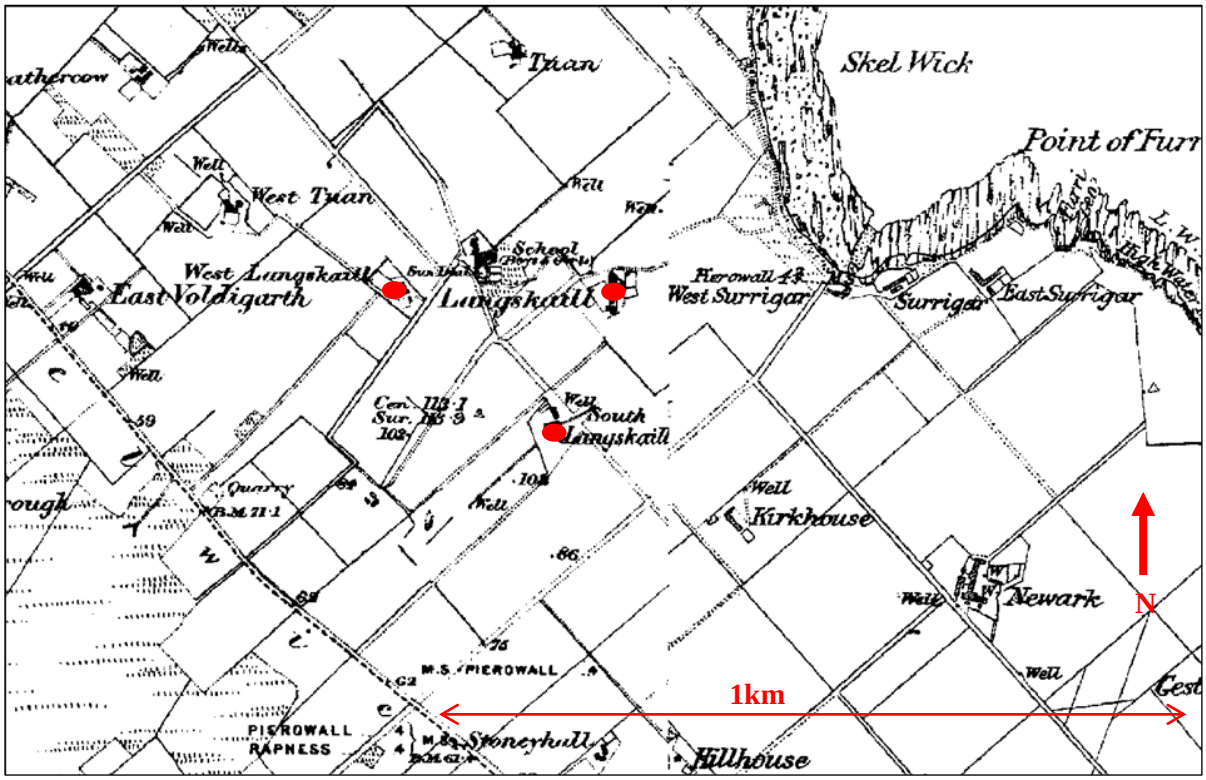


Fig. 6.32: skaill-names on 1882 map: South Langskaill and Langskaill survive onto the modern map: West Langskaill although uninhabited appears on larger-scale map.

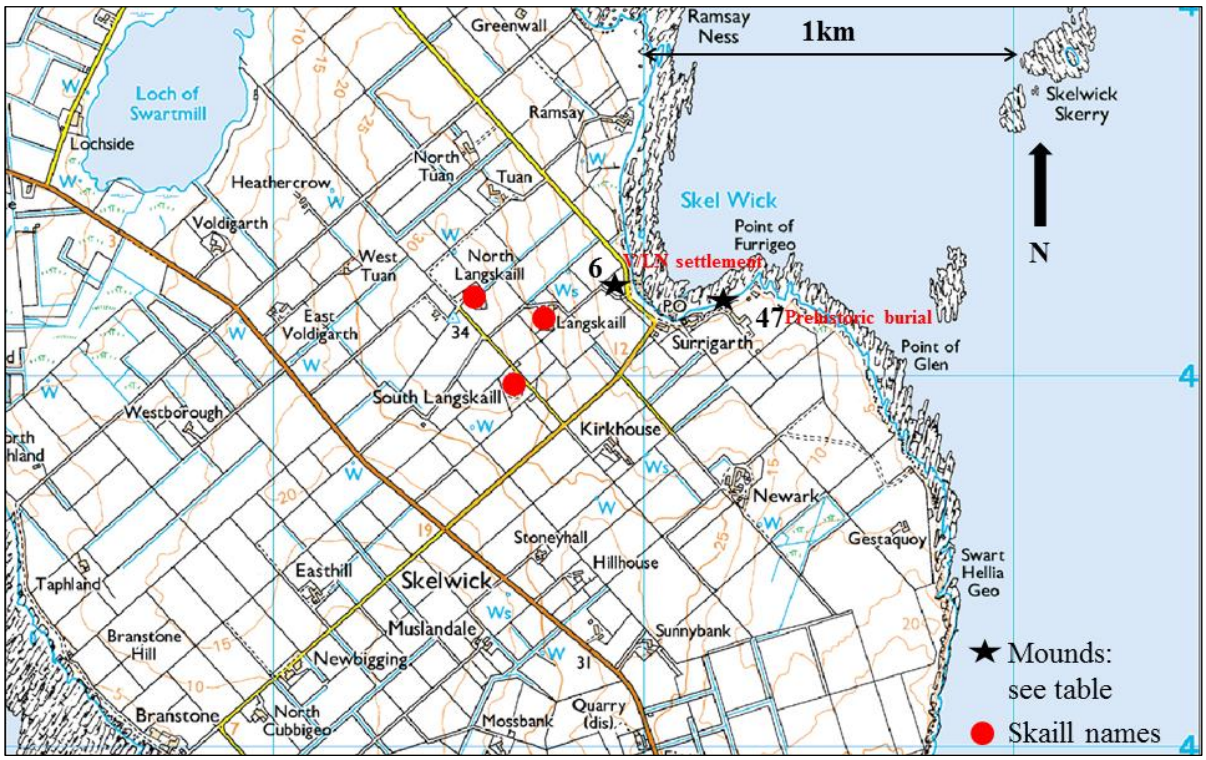


Fig. 6.33: cluster of modern skaill-names: West Langskaill has gone at this scale; school on 1882 map has become North Langskaill.

Summary: settlement on Westray

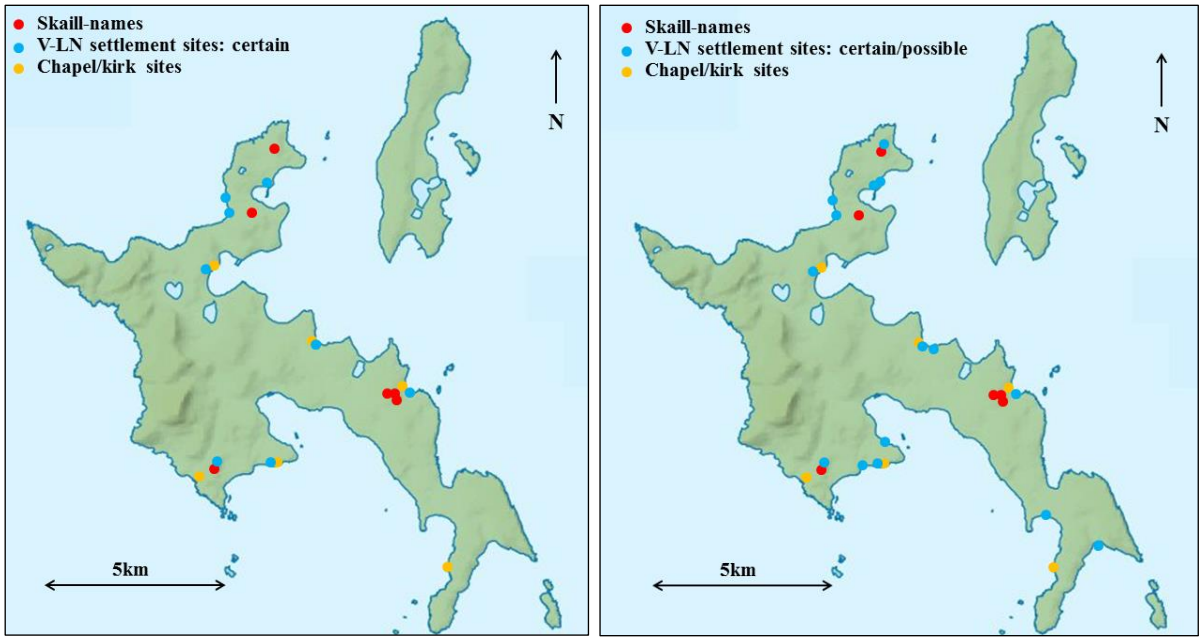


Fig. 6.34: skaill-names with chapel sites and certain settlement, left; skaill-names with chapel sites and certain/possible settlement, right.

There has been more extensive excavation of Viking-Late Norse sites on Westray than anywhere except Mainland and the different interpretation of – in particular – Langskaill and Tuquoy presented here has established a rich Viking-Late Norse settlement landscape. The pattern of at least two major settlement mounds in a skaill-area appears several times on Westray: with certainty at Tuquoy/ Langskaill; probably with Quoygrew/New Haven/Breckaskaill, and at Langskaill/Cleat in Skel Wick; and possibly at Skaill/Evertaft in the north. To these might be added further significant settlement foci at Pierowall – with the cemetery and possible beach-market – and probably Rapness (Fig 6.34). Westray was clearly a well-settled and important island in the Viking-Late Norse period.

Chapter Six (2): archaeological mounds and skaill-sites on Papa Westray

Introduction

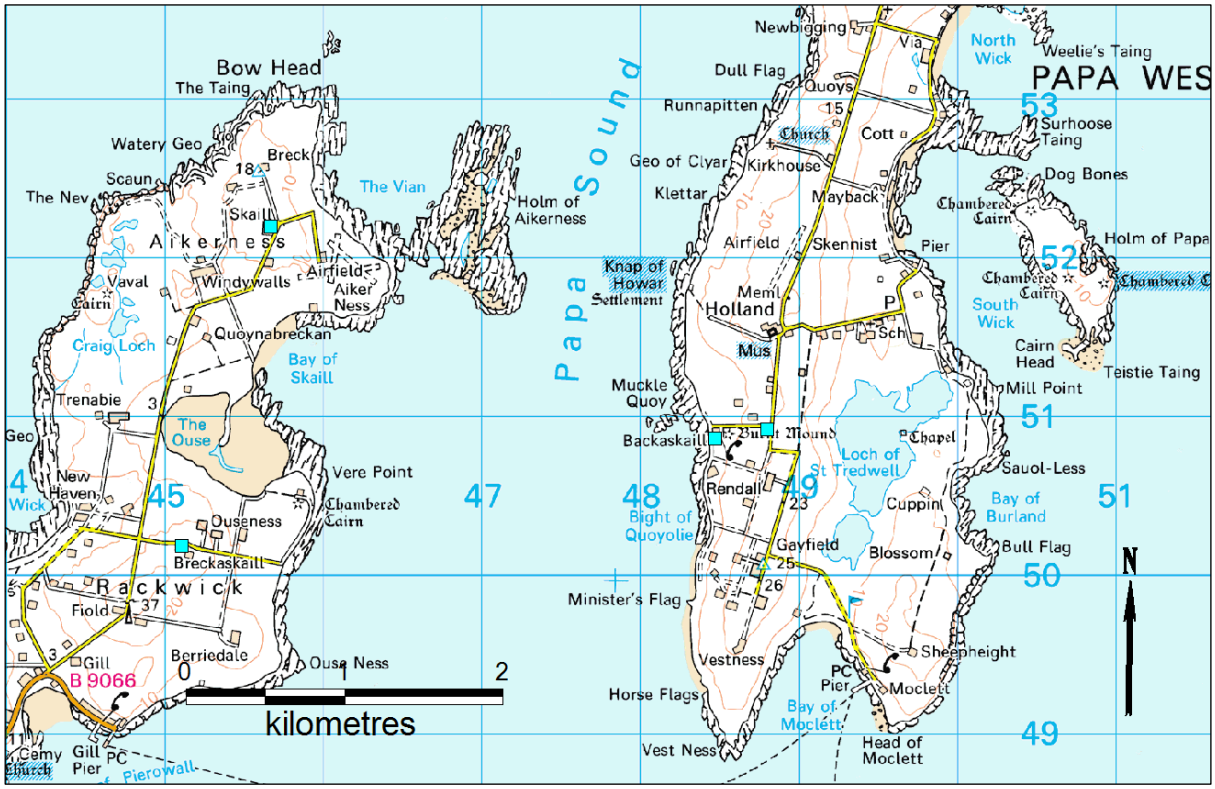


Fig. 6.35: the blue squares mark skaill-sites.

Papa Westray, also called Papay, is one of the three smaller inhabited islands in Orkney on which there are recorded skaill-sites. As on Gairsay and Egilsay (see Gazetteer of skaill-sites) the Papay skaill-sites are on the coast looking across to a larger island: in this case on the west coast facing Westray. The Backaskaill and Breckiskaill sites on Papay are inter-visible with Skaill and Breckaskaill on Westray (Fig. 6.35).

Papa Westray is seven kilometres north-south by maximum two kilometres west-east and generally low-lying, although the island is shaped by a south-north spine of slightly higher ground which undulates up to 25mOD before rising to 48mOD in the north. The sea-cliffs in the north and south-east are relatively steep while the east coast drops gently to two sandy bays. The topography and sandy coast are more reminiscent of Sanday than Westray. On the west coast, around the skaill-sites, wave-cut platforms are interspersed with localised drifts of sand and small geos. Like Sanday and North

Ronaldsay Papay lacks peat; but the island's skat value indicated it had a higher proportion of productive land than Westray (Lamb 1983, 7). Papay was another area declared by the *OSA* to produce the best pasture and arable land in Orkney: one wonders about the partiality of the clergymen contributing to the volume (Withrington and Grant 1978, 357). *Orkneyinga saga* records that Papay was the final resting place of Earl Rognvald Brusisson, murdered on Papa Stronsay in about AD1046 (Pálsson and Edwards 1978, ch. 30).[1] Although the location of the earl's grave is not given, Papay has two churches with dedications linking them to pre-Viking-Late Norse settlement missionary Christianity, which may have retained a particular spiritual significance: St Tredwell's on the Loch of Tredwell and St Boniface further north (see below). No continuity from these allegedly early ecclesiastical sites with twelfth-century chapels can be proven, but one of those churches might have been a suitable location for an earl's interment (Lowe 1998, 5).

Fig. 6.36: looking east across Backiskaill and the possible burnt mound to Westray with that island's Skaill and Breckaskaill sites visible to the right and left respectively

The skaill-sites: Backiskaill and Breckiskaill

The two skaill-sites lie within 300m of each other: Backiskaill – sometimes Backaskaill – on the eroding coast-edge (HY48460 50860), and Breckiskaill inland and upslope to the east (HY48780 50910): ON *brekka* ('slope') and ON *bakki* ('bank'). Both are on the First Edition Ordnance Survey

[1] Two new Viking-Late Norse burials were discovered in late 2015 on Papa Westray: a boat burial and a burial accompanied by a sword. A third, Iron Age, burial was found in the same area www.orknejar.com (12.2015). These burials have not yet been recorded on Canmore or published, even as grey literature.

map. They may have developed from division of an original Skaill-site (Marwick 1952, 45).[2] The sites are surrounded by mound-sites; Backiskaill sits on a slight but extensive mound, immediately north of another low coastal-mound (Fig. 6.37). The latter mound rises behind an eroding section in which midden-type material and structural remains are visible intermittently over nearly 200m (Canmore ID 296907). Just north-east of the farm buildings is an extremely large, possible burnt mound, the Knowe of Backiskaill (Canmore ID 2860); the 1983 RCAHMS survey recorded reports of an old settlement lying between the two skaill-sites of which no trace now remains (Canmore ID 2884; Lamb 1983, 14). The land in that area remains uneven as if disturbed in the past, but that might partly be the result of drainage work on the burn (Fig. 6.39).

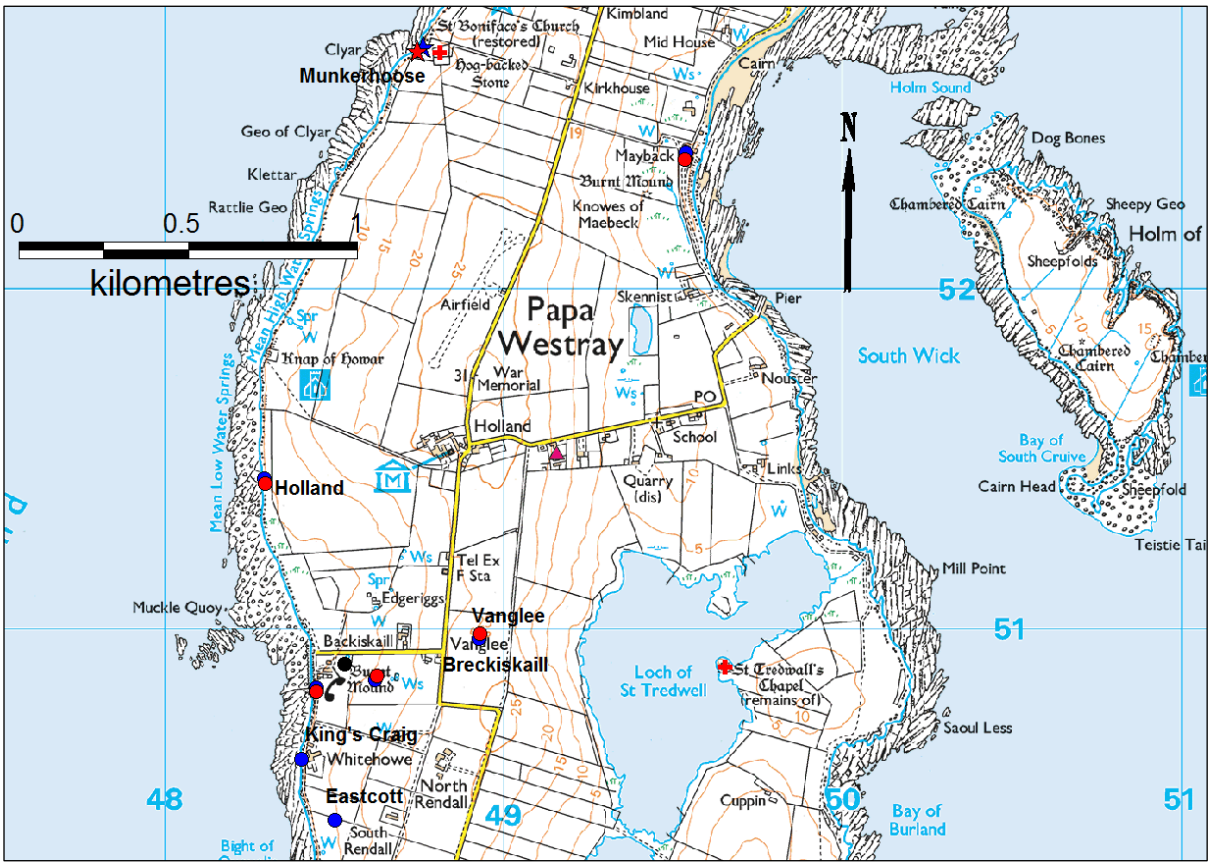


Fig. 6.37: mounds and chapels around the skaill-sites on Papa Westray: red circles and star Viking-Late Norse archaeology and blue circles and star prehistoric; the red crosses are chapels.

[2] Backiskaill is the best landing stage on the western shore of Papa Westray and was in constant use until the building of the new pier in the south of the island as depicted in nineteenth-century photos in Papa Westray Hostel (July 2015).

Fig. 6.38: the modern site of Backiskaill on its spread mound: an undistinguished building today.

Higher up the slope behind Breckiskaill is the site of Vanglee, which Raymond Lamb identified as a "farm-mound" because 'dark material' was being ploughed up from an 'extensive' mound. Any remaining mound is difficult to discern today (HY4892 5097; Lamb 1983, 16). Along the coast north of Backiskaill, at Holland, are further eroding cliff-sections with visible structural stones (Canmore ID 296975; HY4829 5144). Also visible from Backiskaill to the south is the considerable mound of King's Craig under the modern farm, Whitehowe (Canmore ID 2853; HY48405062; Lamb 1983, 15). Midden-type material and structural features, with flagged floors and slab-lined drains, were recorded in 1982 in a section over two metres deep and 26m long (Fig. 6.40). The site may be a least partly prehistoric, as Iron Age pottery was recovered, but such a mound could encompass multi-period settlement. Finally just inland and to the south-south-east of King's Craig, Lamb recorded another of the sites he was interpreting at that time as "farm-mounds" at Eastcott, with 'rich brown earth' marking an old settlement, but now barely visible (HY4857 5045; Lamb 1983, 15).[3]

[3] Lamb identified six sites as "farm-mounds" on Papay in 1982-3: Vanglee (Canmore ID 2851); Eastcott (Canmore ID 2885); Mayback (Canmore ID 2887; HY4954 5240); St Boniface (Canmore ID 2867; see below); Kirk of Howe (Canmore ID 2854; HY493 530); Hookin (Canmore ID 2886; HY49925127) and North and South Via (Canmore ID 2889; HY497 532). None of the sites, except Hookin, had at that time revealed any structural elements (Lamb 1983, 15-16). Then, in the early 1980s, Lamb was defining "farm-mounds" as being essentially *without* structure and being composed of organic deposits, typically 'loamy brown earth' (Lamb 1983, 15).

Fig. 6.39: Breckiskaill looking near east across the disturbed ground.

Fig. 6.40: the erosion section at King's Craig in 1982 looking south-west © canmore.org.uk/collection/400988.

Fig. 6.41: the Papa Westray skaill-sites © GoogleEarth.

The Wider Settlement Context

St Tredwell's Chapel

A kilometre east of the skaill-sites lies the complex site of St Tredwell's Chapel (St. Triduana), comprising a multi-period mound dominating a small peninsula jutting out into the Loch of St Tredwell. The peninsula was probably a small island in the prehistoric period (Figs 6.42-43; Bowman 1991, 1992; Canmore ID 2882; HY4964 5088). This site has been interpreted as a complex of Iron Age buildings including a broch, surmounted by the ruins of a purported twelfth-century chapel, whose Pictish dedication may indicate a pre-Norse ecclesiastical site.

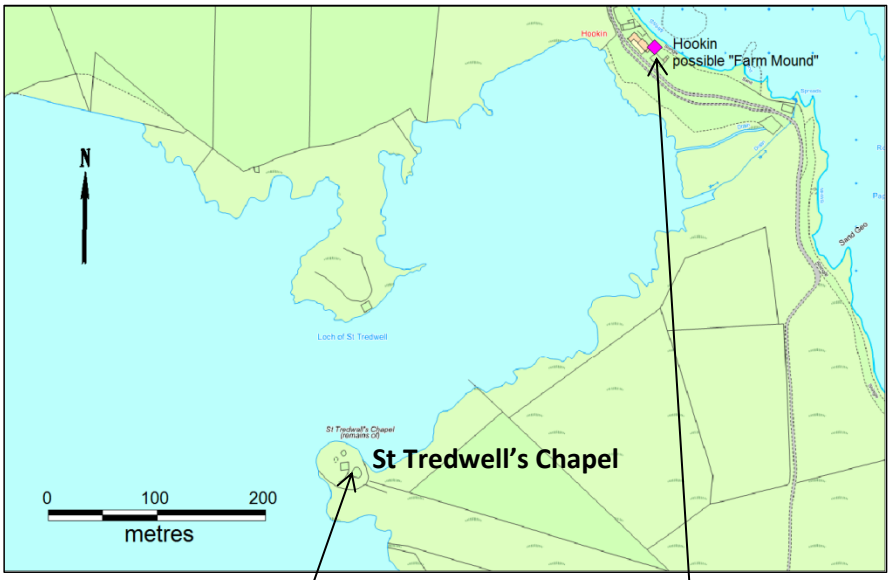


Fig. 6.42: the multi-period mounded site of St Tredwell's Chapel; with a possible mound-site at Hookin on the coast.

Fig 6.43: St Tredwell's chapel looking near west (left) and the farm mound Hookin looking north (right).

St Boniface/Munkerhoose: HY4879 5270 centre, Fig. 6.46

Two kilometres up the coast from the skaill-sites lies an important, extensive prehistoric to medieval mound-site, exposed in an eroding coastal-section and extending under St Boniface chapel and churchyard to the east (Fig. 6.44).[4] Tapestry (vertical) excavation and section-recording in the 1990s confirmed the presence of an Iron Age roundhouse [5] and related extramural settlement, below a later midden-mound interpreted as resulting from industrial-scale fish-processing in the Viking-Late Norse period (Lowe 1998). Parts of these structures, occupation and midden deposits are still visible in the exposed section-face, up to four metres deep (Fig. 6.45). The excavation established the extensive and

[4] The exposed section is about 125m long and the mound-deposits stretch 100m inland. The southern end of the exposure is dominated by interleaved structural elements, occupation surfaces and midden-type material; the northern end, as excavated, was structure-free and composed of fine mineral sediments. There are known to be extensive stone structures under the churchyard.

[5] Not a broch: this may reflect the South Howe site on Rousay where what was interpreted as a broch may be a large roundhouse, pp. 199-200.

complex nature of the mound's palimpsest of buildings and deposits. St Boniface itself is an eighteenth-century rebuilding of the twelfth-century church; a contemporary hogback-related sculptural piece lies in its graveyard (www.paparproject.org.uk/orkney; Lang 1975, 220-1; Lowe 1998).[6] Two cross-incised stones found in the graveyard suggested a possible early-Christian phase to the site: perhaps continuity of ecclesiastical use.

Fig. 6.44: looking south-east at the Munkerhoose and St Boniface mound © www.paparproject.org.uk/orkney

The excavation confirmed that at least one phase of the mound lying under and west of the church was dominated by Iron Age structures, although the earliest phases comprised Bronze Age funerary and settlement features (Lowe 1998, 10). After the abandonment of the Iron Age site, and the infilling of its enclosure ditch, a 'deep soil' developed over the southern structural sequence probably during the period AD500-700; this was also visible in the "farm-mound" section to the north (ibid. 122). This soil may have been cultivated. In the following phase, from about AD700-1100, a stable ground-surface formed over that soil, indicating the focus of activity had moved elsewhere. It was over this surface that the "farm-mound" accumulated in the north, defined by the excavators as the ash-rich, apparently structure-free component of the overall mound. These deposits were analysed and found to comprise finely-laminated peat-ash deposits derived from the burning of a great quantity of turf/alluvial peat as

[6] When found the hogback had an upright slab at the west end of the recumbent stone (Lang 1975, 220-1).

fuel.[7] The excavators proposed that the great quantity of ash contained within the large mound had been generated during industrial production of oil from fish-livers (Lowe 1998, 208-9). The layers examined in the section had been formed by ash blowing down-slope from higher up the mound. When modelled with auger surveys this discovery about formation processes indicated the ash-deposits might be up to three metres deep at the apex of the mound. However, the radiocarbon dates suggested the layers accumulated in only about 160 years (ibid. 106-7 and 183). Lowe regarded these deep, consistently-formed and extensive "farm-mound" deposits as constituting a separate ash-mound: part of the much larger site which also encompassed superimposed structures, surfaces and middens (ibid. 197-99; see pp. 335-47 on the farm-mound debate).

Fig. 6.45: the Munkerhoose section in 2015 looking east, with prehistoric structures to the right and the "farm-mound" deposits to the left.

The long prehistoric occupation sequence and the "farm-mound" deposits at St Boniface are therefore both parts of one huge and complex settlement mound across which, over the centuries, the focus of activity has shifted as its character has altered. A Viking-Late Norse structural component to the mound perhaps remains to be discovered.

[7] These turfy fuels produce proportionally more ash when burnt than "land" peat or wood (Lowe 1998, 183).

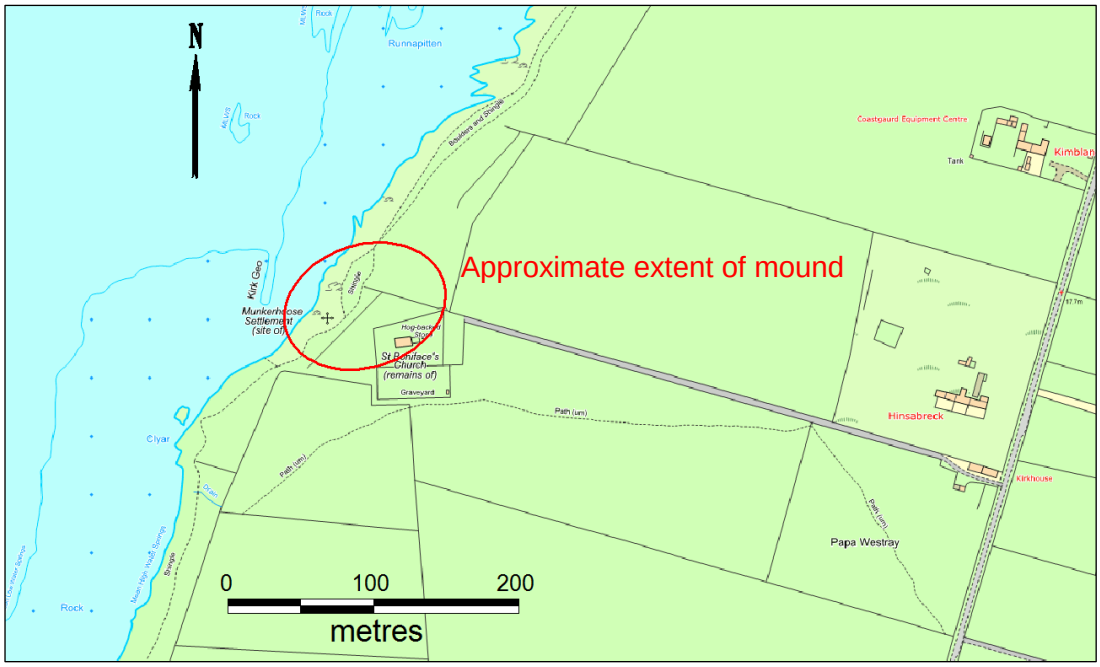


Fig. 6.46: the Munkerhoose/St Boniface mound.

Fig 6.47: St Boniface Chapel, looking west, with part of the multi-period mound visible to the right.

Summary: settlement on Papa Westray

The St Boniface site raises many questions. The time-depth and extent of the settlement, and proximity of a church (with a hogback monument), recalls Skaill (Deerness); the shift to specialisation in fishing, recalls Quoygrew (Westray), less than five kilometres south-west. Was there a secular, high-status Viking-Late Norse settlement in the vicinity of St Boniface, associated with the chapel, and as yet undetected? If so it would have been sited on the flanks, if not close to the summit, of an existing prehistoric settlement mound, and inter-visible with skaill-sites to the south as well as those on Westray. How might any Viking-Late Norse St Boniface settlement have been related to those

skaill-sites, or to any possible settlement of the period at the closer and equally visible site at Holland? The skaill-sites and possible settlement mounds on Papa Westray, few of which are on “classic” sandy bays, only further emphasise the potential complexity of Viking-Late Norse mound-related settlement patterns: much more survey and excavation is needed to clarify the pattern on this island (Fig 6.49).

Fig. 6.48: St Boniface hogback: evidence for high-status Viking-Late Norse settlement nearby?

Fig. 6.49: the grey diamonds are possible, and the pink ones known, settlement mounds.

Chapter Seven: archaeological mounds on Sanday

This chapter looks at the distribution of archaeological mounds on Sanday in their landscape context. The mounds will be surveyed in detail by dividing the island into six areas.[1] In each of the areas the mounds will be examined in relation to topography, coastline and drift geology, good landing places and harbourage. The mounds themselves will be categorised where possible as before, and considered in relation to one another, skaill-names and chapels. Finally, the excavated Viking-Late Norse sites of Scar and Pool, and soils-focused work on Westborough, Langskaill and Skelbrae mounds will be reanalysed, looking in particular at mound-related building techniques.

Fig. 7.01: Sanday from the air looking north across Lama Ness.

Introduction

In the Viking-Late Norse period Sanday, like Westray, was a first landing point for sailors from Norway, Shetland and Fair Isle. Otterswick and Kettletoft provided excellent harbourage; the rock bar at Pool created another small, secure shelter, while Viking boats could also have exploited the soft landing on other sweeping sandy beaches. Sanday's name speaks for the island's distinguishing characteristic: over half the island comprises coastal dunes, links, beaches and windblown sand machair (Fig.7.02). Approaching by sea on a reasonably clear day the beaches gleam palely, guiding

[1] This division was driven by the distribution of mounds and possible Viking-Late Norse archaeology but, because the identification of sites is not on the whole very secure, it was more difficult to determine areas here than on Westray. Many mounds are recorded on Sanday but proportionally fewer have been investigated.

boats to the island. The shell sand supported light, easily drained soils and Sanday's very high medieval skat (or tax) valuation[2] indicated these 'fertile soils produced high yields of barley' (CZA 1999, 16): the island may have been equally valuable in the Viking-Late Norse period for the production of grain. Great quantities of seaweed collect on the long beaches and archaeological evidence from Pool and Toft's Ness demonstrated that this resource was plundered from prehistory to fertilise the sandy soils (Hunter et al. 2007, 10; Dockrill 2007). Peat has not developed in the low-lying sandy landscape and its absence necessitated the use of turf, dung and seaweed as fuel,[3] while the gentle topography meant a lack of higher rough pasture-land. Despite the apparent significance of arable farming, twelfth-century Sanday is depicted in sagas as a liminal and at times lawless place, which was however strategically significant and a chosen location for important meetings. *Flateyjarbók* mentions *Úlfr Illi*, ('Wolf the Bad'), a chief living on Sanday in the later-tenth century, notorious for acquiring land through murder and intimidation. *Orkneyinga saga* references underline Sanday's strategic role and imply that, although powerful chiefs held farms there, it was a place a little removed from the hub of earldom politics.[4] The 1595 *Rentals* for Sanday record six *Bu* farms: [5] the Bus of Tofts, Walls, Lopness, Tresness, Brough and Hackness (Stove).[6] Rather surprisingly the three first *Bu* sites are all on the north-east peninsula, leaving each with a very small area of surrounding farm land. This perhaps only emphasises Sanday's value as a "grain basket".

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[2] Sanday was valued at 36½ urislands or tax-units which division would produce very small areas of 2-3 acres, implying high productivity (see e.g. Lamb 1980).

[3] These substitutes needed to be burned in much greater quantities than peat, producing vast amounts of ash: see discussion of Pool. Some loch peat was available from reduced or impounded lochans.

[4] After Earl Paul had defeated Rognvald, who invaded from Shetland, Paul held a great feast for his chieftains, at which they determined to create a beacon chain to warn of future enemy fleets approaching from Shetland: a beacon on Fair Isle would alert North Ronaldsay, and presumably Sanday would then have been the vital link onwards to 'other islands' (Pálsson and Edwards 1978, ch. 66, 123). Levies were also raised across Orkney following that battle with Rognvald: the sons of Havard Gunnason, Thorstein and Magnus, were in charge of North Ronaldsay and Sanday respectively. Thorstein was clearly an influential chieftain as he was called on shortly after to intercede between Rognvald and Paul (ibid, ch. 73, 136). Sanday was also the location of a peace conference involving the notorious Svein Asleifsson (ibid. ch. 92, 186) and is mentioned as the first landing point after Fair Isle (ibid. ch. 94, 193). Svein Asleifsson took refuge there in the wake of the killing of Earl Erland, with a kinsman called Bard who lived at Voluness (ibid. ch.95, 20).

[5] *Bu* farms are defined as large bordland or demesne non skat/tax-paying earldom farms worked independently and as a unit (Clouston 1919, 25; Thomson 2008b, 25).

[6] William Thomson suggested "Bu of…" was a later Scots place-name formation: earlier large farms with Old Norse name *bú* would have been Bea (1995); Berit Sandnes agreed (2010, 82-83).

According to Raymond Lamb 'The most striking peculiarity of the two islands [Sanday and North Ronaldsay] is the prominent mounds on the summits of which many of the largest and oldest-established farms are built' (Lamb 1980, 7). The largest, such as Beafield, are four metres high, cover about a hectare and are even more striking because of the flatness of Sanday. This has become an accepted way of looking at Sanday, but Lamb's statement needs unpicking. It is clear now that many Orcadian islands have settlement mounds: mounds, like Sanday's, placed amidst good agricultural land in coastal areas. A number of Sanday's mounds are perhaps distinctive in having long-established, working farms on top, but there is little certainty about when any of those farms were founded. Lamb could only elaborate with circumstantial evidence: it was "well-known locally" the mounds contained ancient structures. He also argued many must have originated as settlements before the Viking-Late Norse period. Their Norse farm-names – he cited *haugr* and *brekka* – suggested the mounds were already notable features when settled (ibid. 7). There are, however, only two Sanday *haugr* ('mound') farm-names, Howe farms nos 21 and 51.[7] Lamb's final example is Beafield – the largest Sanday tell (no. 20) – ON *bœr* and *fell* ('the hill of the farmstead'), but again the mound's history is not known. Such mounds could be 'veritable tells… built up over several millennia of occupation' (ibid. 7), and are unusual in indicating no general settlement shift off mounds on Sanday, but apart from Donald Davidson's work (see below), there is as yet little evidence for the age or continuity of settlement on these still-occupied mounds.

There also appear to be an enormous number of small and possibly early chapels (Table 7.01). Lamb and others have suggested these were established as private chapels by wealthy farmers (Lamb 1980, 8), their numbers testimony to Sanday's agricultural potential and popularity as a home for ambitious Viking-Late Norse men. But, as discussed below, evidence for the age of all but one of these chapels is non-existent and not one has been excavated. Looked at more closely many of the suspected chapel-

[7] The site of Howar just south-west of Pool is another possible *haugr* mound-site with some evidence for local Viking-Late Norse finds (no. 12). The *brekka*-names are on North Ronaldsay, where Raymond Lamb recorded a number of potential settlement mounds, some like Cruesbreck with a working farm on top (Canmore ID 3664; HY7625 5245), others like Hooking (Canmore ID 3655; HY7673 5388) with coastal erosion-sections (Lamb 1980). None of the mounds on North Ronaldsay have been investigated and none are yet identified with any certainty as Viking-Late Norse.

sites may not be ecclesiastical at all: several are based on field-names only and others have disappeared.

Sanday was enthusiastically reported on by Dr. Wood in the 1842 *NSA* (the source of information on many of the chapels), whose discoveries were added to by Hugh Marwick (1922-3) and by J. Storer Clouston on chapels (1918a-c). These records were further supplemented by later commentators, including Raymond Lamb, on the whole without the original reports being interrogated. Hitherto, however, the Viking-Late Norse period on the island has been poorly understood, and the settlement pattern difficult to discern. More of Sanday's prehistoric archaeology has investigated in recent times and, despite the many recorded mounds and chapels, Pool (Hunter et al. 2007) and the Scar boat burial (Owen and Dalland 1999) remain the only major non-prehistoric excavations. This chapter establishes in much more detail the potentially quite dense and varied Viking-Late Norse settlement on Sanday.

Geology and Topography

Sanday, and the small island of North Ronaldsay, are the two furthest north-east islands of the archipelago. Sanday is lobster-like in shape, elongated and highly indented, running just over 21km from its north-east peninsula Tofts Ness to the south-western Spur Ness, and nearly 10km from Whitemill in the north-west to Els Ness to the south. Sanday's solid geology, like that of Westray, is dominated by Upper Stromness Flagstone, with a small area of Eday Flagstone creating the relatively hilly hogback ridge in the south-west. This ridge runs north-east from the Gump of Spurness at 50mOD, to the Wart at 65mOD and finally Fea Hill at 53mOD behind Backaskail Bay. The rest of the island's topography is subdued, flat or gently undulating, with the highest rises only reaching 20mOD. As the island is so low-lying, it presents a slight but white, sand-fringed profile from the sea. Over the Eday sandstones in the south-west are some superficial deposits of glacial till, but the drift geology is predominantly extensive stretches of windblown sand covering over half the island's area (Fig. 7.02). The coastline is dominated by sheltered sandy bays like Backaskail Bay and more open, shell-sand strands like the Bay of Lopness.

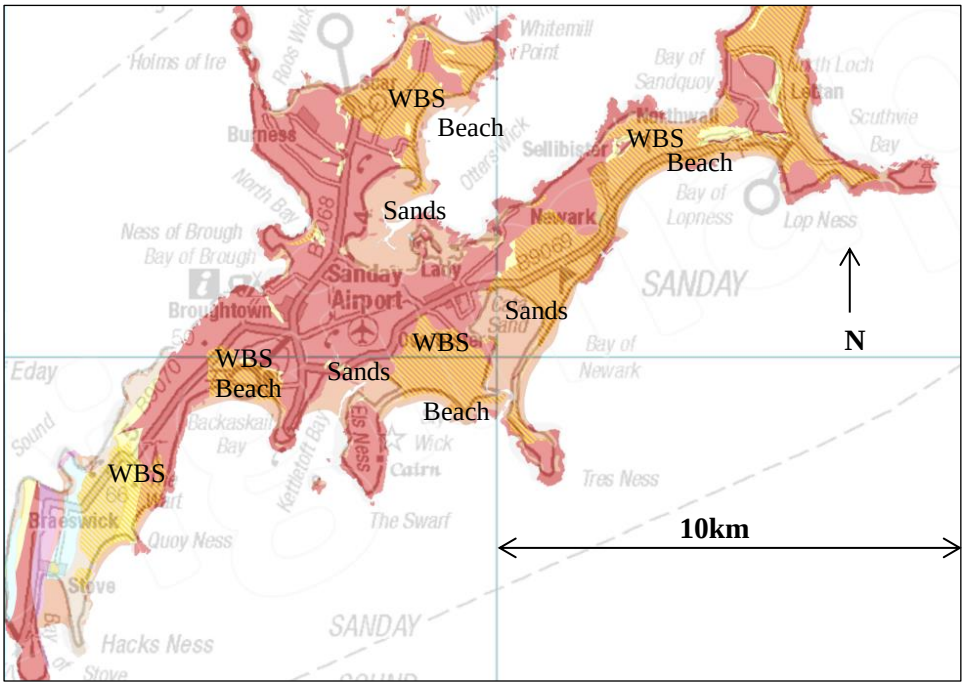

Fig. 7.02: windblown sand links, dunes and beaches.

The extensive dune systems create a soft, shifting landscape vulnerable to erosion and topographical change. There have been major sand movements in the past; for example, in the early-nineteenth century Reverend Barry lamented that on Westray and Sanday 'the blowing of the sand …has spread desolation over some of the most beautiful and best land' (1805, 59). This blown sand forms high, dramatic dune-ridges – especially in Newark Bay and the isthmus of Tres Ness – as well as sweeping white beaches. The north-east arm of Sanday is almost entirely cloaked in sand, with some broad wave-cut platforms and occasional areas of alluvium marking drained lochs. The gentle south-facing slopes of Cata Sand and Sty Wick Bay in the centre are dominated by sandy soils and beaches. In north-west Sanday the links and drifts of sand in the east, facing Otterswick Bay, merge with those behind Whitemill Beach in the north and Ayre Sand to the west. The long bay of Backaskail in the west-centre has broad links and even the rough hill-land of the south-west spur has sandy machair-like soils. There are extensive dunes in the hinterland beneath Ward Hill.

The fast-drying sandy soils, good building stone, abundant harbourage and gentle shores ideal for collecting seaweed were all attractions for Viking-Late Norse settlers. However Sanday's distinctive exposed, low, flat 'ness' promontories – Els Ness, Tress Ness and Tofts Ness – are notable for their lack of known/possible Viking-Late Norse archaeology, despite a considerable prehistoric presence.

Chapels on Sanday

There is an extraordinary number of possible churches/chapels – perhaps 28 – recorded for Sanday (Table 7.01; Fig 7.03). For only three do any building foundations survive (apart from ruins of later parish churches at Cross no. 26 and Lady no. 24). Of these, only remains on the Holms of Ire (no. 18) appear to be securely identified as belonging to a chapel.[8] This isolated chapel is also the only recorded ruin that might attest to an *early* chapel. Despite the uncertainty of the record the *Coastal Zone Assessment* proposes that these chapels reflect the Viking-Late Norse settlement pattern and the 'custom for each wealthy household to support a chapel' (CZA 1999, 17). This claim draws on the work of Alexander Aberdeen, as well as J. Storer Clouston, Hugh Marwick and Raymond Lamb, all of whom were enthusiastic recorders of possible chapel-sites. In his 1760 map of North Sanday Aberdeen noted five very closely clustered chapel-sites: he was eagerly classifying any rectangular building foundations as having been a chapel. Storer Clouston was also over-ready to equate any relatively small rectangular structural remains with chapels/kirks – of all periods – as well as relying on untested map data to capture all possible sites. In collating his lists for the whole of Orkney, Clouston used Mackenzie's map of 1750, Aberdeen's Maps of 1750 and 1760 (without questioning them, so perpetuating any assumptions made in creating those maps), *NSA* accounts (and so the enthusiastic, but not always discriminating, recording of Dr Wood), Ordnance Survey data (including the *Original Name-Book*) and inferences from place-names such as Kirk Geo (1918b-c; Fig 7.04).[9]

Clouston makes some interesting comments about the "chapels". He attempted no distinction between dates of foundation, so not all – if they were chapels – were "early"; he also reported *NSA* remarks that almost all were close to a broch or other stone "prehistoric" building: 'Not infrequently the chapels are actually created right on top of them' (1918b, 105). In a follow-up article Clouston elaborated by quoting observations in the *NSA*: '[The chapels] are all surrounded by, or in the immediate vicinity of, good land, and generally near a well or fresh water loch. None of them are found on the moor or hill ground. Several have been built close by the ruins of other buildings' (1918c, 223).

[8] The earlier structural remains at Cross, Backaskaill (no. 26) may belong to a non-ecclesiastical building.
[9] Raymond Lamb contributed a few further possible sites based on place-names, as recorded in the OSMR notes (Table 7.01).

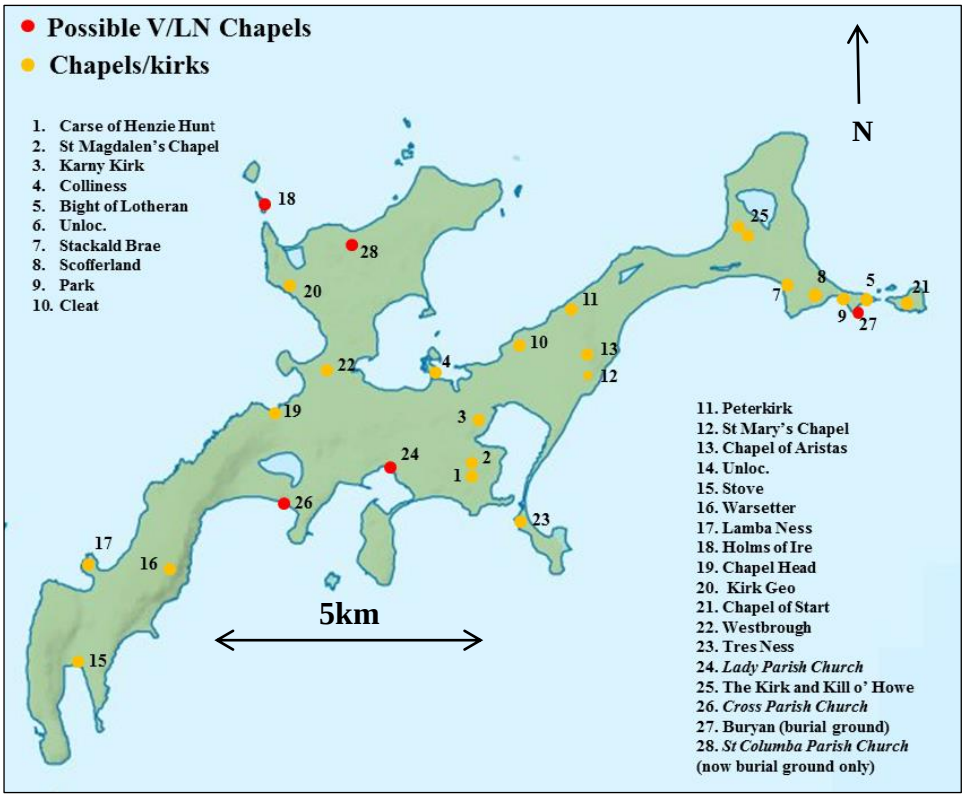

Fig. 7.03: the chapels of Sanday. Only no. 18 seems securely identified as an early chapel. Nos 7, 8, 9, 14 (now unlocated) and 21 are identified on Aberdeen's 1760 Map of North Sanday; nos 4, 6, 22, 23, 24, 26 and 29 are more likely from records to be early, but none of the attestations are secure.

Clouston also pondered the small size of the surviving ruins as recorded in the *NSA* (no more than four by three metres), and hypothesised that such small buildings would all be chapels founded by Norse leading landowners. These two articles (Clouston 1918b-c) effectively established the basis for later presentations of Sanday as an island overburdened with chapels, implying many prosperous but relatively small farmsteads thriving on light, sandy soils. Some of course of these unproven sites could be chapels, even some later Viking-Late Norse chapels, and Sanday may have supported more than the usual number. Equally some might well be settlement sites and need to be reviewed with that possibility in mind. As things stand, the chapels provide little substantive evidence to help elucidate the Viking-Late Norse settlement pattern: however, it is interesting that the Sanday skaill place-name sites are either very near, or correlate with, what might be significant chapel-sites. So these might indeed have been early chapels linked to established skaill-sites, or even structural remains of those secular sites themselves. Most interesting in this respect is the ruined church of Cross on Backaskail Bay which 'appears to be the centre of an extensive settlement complex', and was interpreted by Lamb as the *bu*-site recorded in the names Bea Ness and Bea Loch (1980, 8).

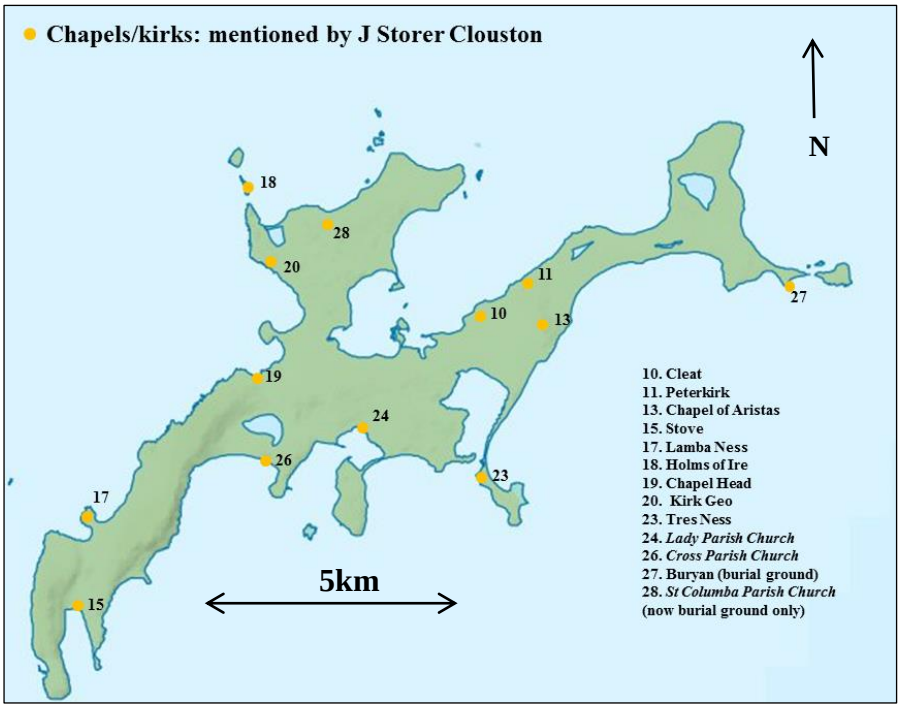

Fig 7.04: chapels/kirks recorded by Storer Clouston (1918b-c).

Distribution of Mounds and Settlement in Sanday: Table 7.01

Classification challenges

A range of sources has been used to compile a table of known/recently disappeared mound-sites on Sanday. The table records 143 archaeological/possibly archaeological mound-sites. Some entries encompass more than one mound and a few are for mounds now disappeared. The classifications are as before, and again few have been excavated or dated. Similar challenges to classification applied but the identification of sites here was further complicated because topographical aspects that helped to distinguish other mound catalogues are less relevant on Sanday.

The smaller mounds (between 5m-20m) mostly cluster on Sanday's low peninsulas and slightly higher inland ground and are most plausibly identified as: burial mounds, including chambered cairns, such as Quoyness no. 105; burnt mounds, found on wetter ground such as no. 86; or indeterminate. Larger mounds, those over 20m-80m, reasonably interpreted as settlement mounds or brochs, are found on

the coast, for example Ayre no. 15 or Russ Ness no. 29, or just inland, such as How no. 21.[10] The four skaill-sites, nos 16, 17 and 50, and the skaill-site at HY6900 4030, to which no archaeological records attach, are all on windblown sand: no. 16, Langskaill, and the possible broch at no. 50 Backaskail are coast-edge; no. 17 Northskaill lies 200m from the beach and Skaill 400m from Cata Sand to the north-east and one kilometre from the open beach at Sty Wick. All are on mounds and the Cata Sand Skaill and Northskaill on mounds also on the highest points in the vicinity.

Farm-mounds

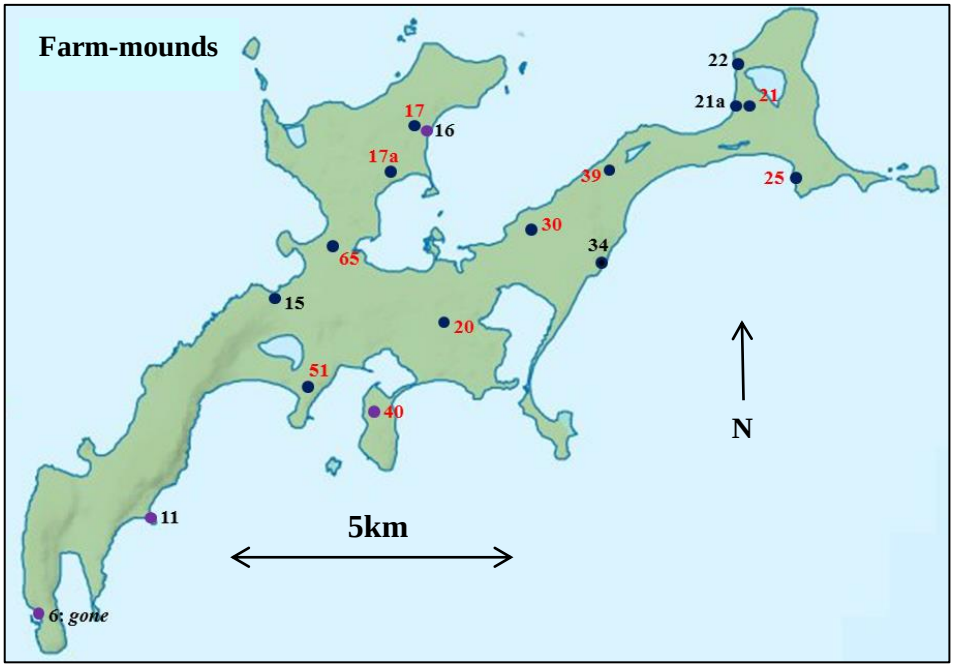

Fig 7.05: possible settlement mounds designated as farm-mounds; the red numbers indicate "inland" mounds and the black coast-edge ones; nos 11, 16 and 40 do not have modern buildings on them.

The definition of, research into and debate about farm-mounds is discussed in detail below (p. 335 ff.). This section deals with their characterisation on Sanday. Some of the mounds originally designated by Raymond Lamb in the 1980s have Old Norse topography-related names, which suggest when the sites were named they were already hillocks. Lamb actually set this down as a characteristic feature, but in fact only Beafield and the two How farms are named for mounds. The farm-mounds as defined by

[10] As far as there is any inland in Sanday: it is impossible to be more than a kilometre from some part of the coastline.

Lamb are well distributed across the island, except on the south-west hilly peninsula, and have been grouped in the table below. Many other possible settlement mounds have since been identified.

Farm-mounds identified by Raymond Lamb: see Fig 7.05				
Large, prominent, free-standing mounds with modern settlement on top		**Possible settlement mounds *without* modern farms**		
Coastal	**"Inland"/backshore**	**Coastal**	**"Inland"/backshore**	**Disappeared**
15 Ayre	17 Northskaill	11 Quoy Ness	40 Elsness	6 Spur Ness
21a Sandquoy	17a Skelbrae	16 *Langskaill*		
22 Tafts/Tofts	20 Beafield			
25 Lopness	21 How			
	30 Cleat			
	34 Newark			
	39 Seater			
	51 How			
	65 Westbrough			
Other possible settlement mounds, highly-visible locally, often with erosion-section (not designated as farm-mounds by Raymond Lamb): see Table 7.01				
Possible settlement mounds *without* modern farms				
Coastal: large mounds, c. 40m	**Coastal: large, spread mounds**	**"Inland"/backshore**		**Disappeared**
1 Cross	19 Ladykirk	5 Spur Ness		10 Quoy Ness
2 Bay of Stove	24 Park	7 Whistlebare		
3 Pool	26 Stenchme	12 Howar		
4 Boloquoy	27 Stenchme	18 Moo Geo		
8 Woo	28 Skartan	43 Ivar's Knowe		
9 Kettletoft	29 Russ Ness	Skaill		
	37 Newark			
	38 Smear Geo			
	41Whitemill			
	44 Stove			

Few of the "farm-mounds" identified by Lamb have been examined or dated. They are substantial, with wide view-sheds and highly-visible, and sometimes, but *not* always, and especially not if Lamb's category is expanded as suggested above, distinguished by having modern farms on top (just under 33% fall into the latter category). There are now known to be many other possible settlement mounds elsewhere across the North Atlantic; they seem more numerous and dominating on Sanday because of

the island's topography and history of archaeological discovery and reporting.[11] From the expanded list above it is also not clear that settlement '… mounds are more commonly located in the hinterland than on the coast edge, in a central rather than peripheral relationship to the farm land' (CZA 1999, 20). However, it is undoubtedly the case that the mounds are unlikely to share a single commencement date (ibid. 19): settlement mounds on Sanday are as varied as everywhere else and cannot be limited to the distinct class of "farm-mounds" as originally defined.

Areas of Investigation

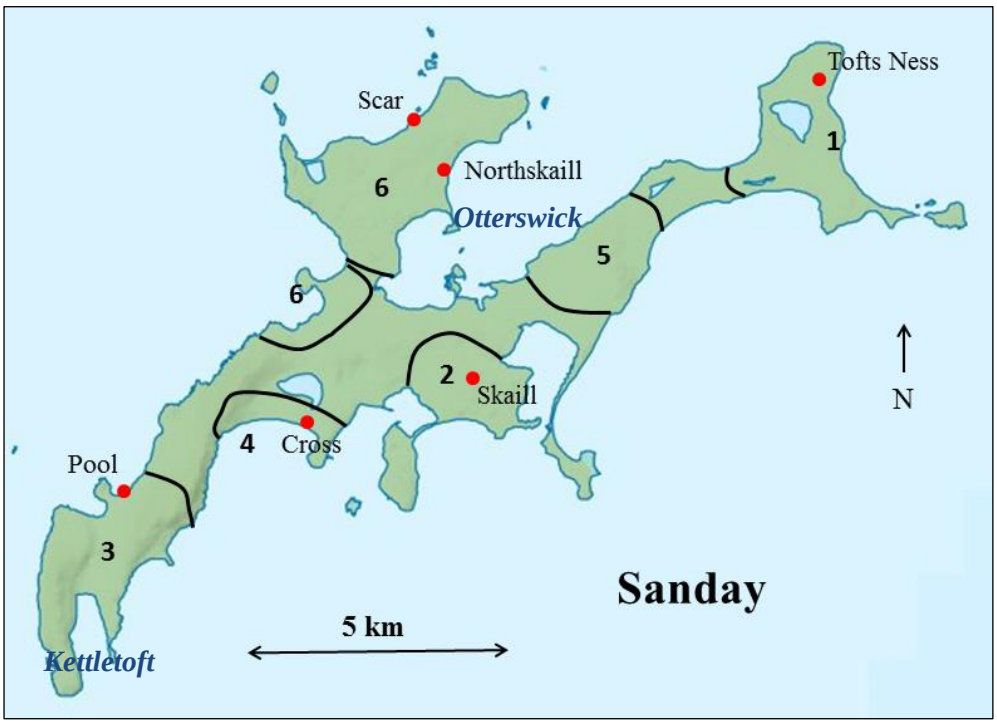

Fig 7.06: areas of investigation.

The clustering of mound-sites and known/possible Viking-Late Norse archaeology suggested six areas would be of particular interest in analysing the settlement pattern: 1. Tofts Ness and Lop Ness in the north-east; 2. the central area around Skaill, Beafield and Sty Wick Bay; 3. Pool and the Bay of Stove; 4. Backaskail Bay; 5. around Cleat and Newark; and 6. the north-west peninsula including Scar and Northskaill/Langskaill (Fig. 7.06). The drift geology of all these areas is dominated by windblown sand; three have skaill place-names; all have suspected Iron Age and Viking-Late Norse archaeology.

[11] Including the fact that Raymond Lamb spent a considerable amount of time on Sanday and so had more opportunity to add to the catalogue.

The areas without excavated Viking-Late Norse settlement will be discussed first: Toft's Ness (1); Cleat and Newark (5); Skaill (2) and Backaskail Bay (4); and finally the area around Pool (3) and the north-west (6) where excavations have explored archaeology of the period.

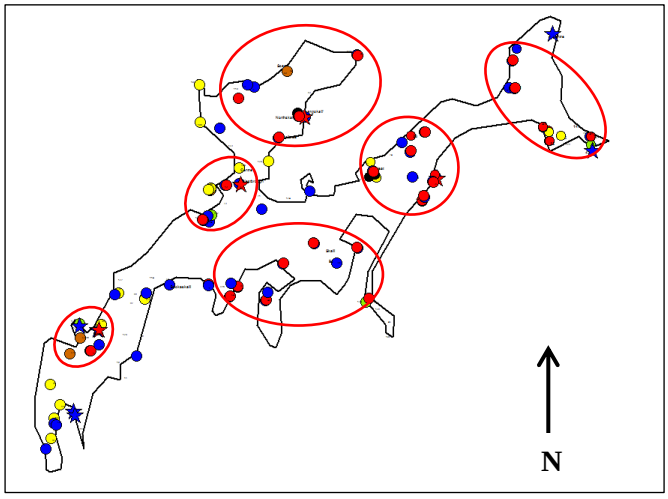

Fig. 7.07: red symbols indicate known/possible Viking-Late Norse settlement showing the "clusters" of archaeology of that period.

Area 1: Tofts Ness and Lop Ness: Fig. 7.08

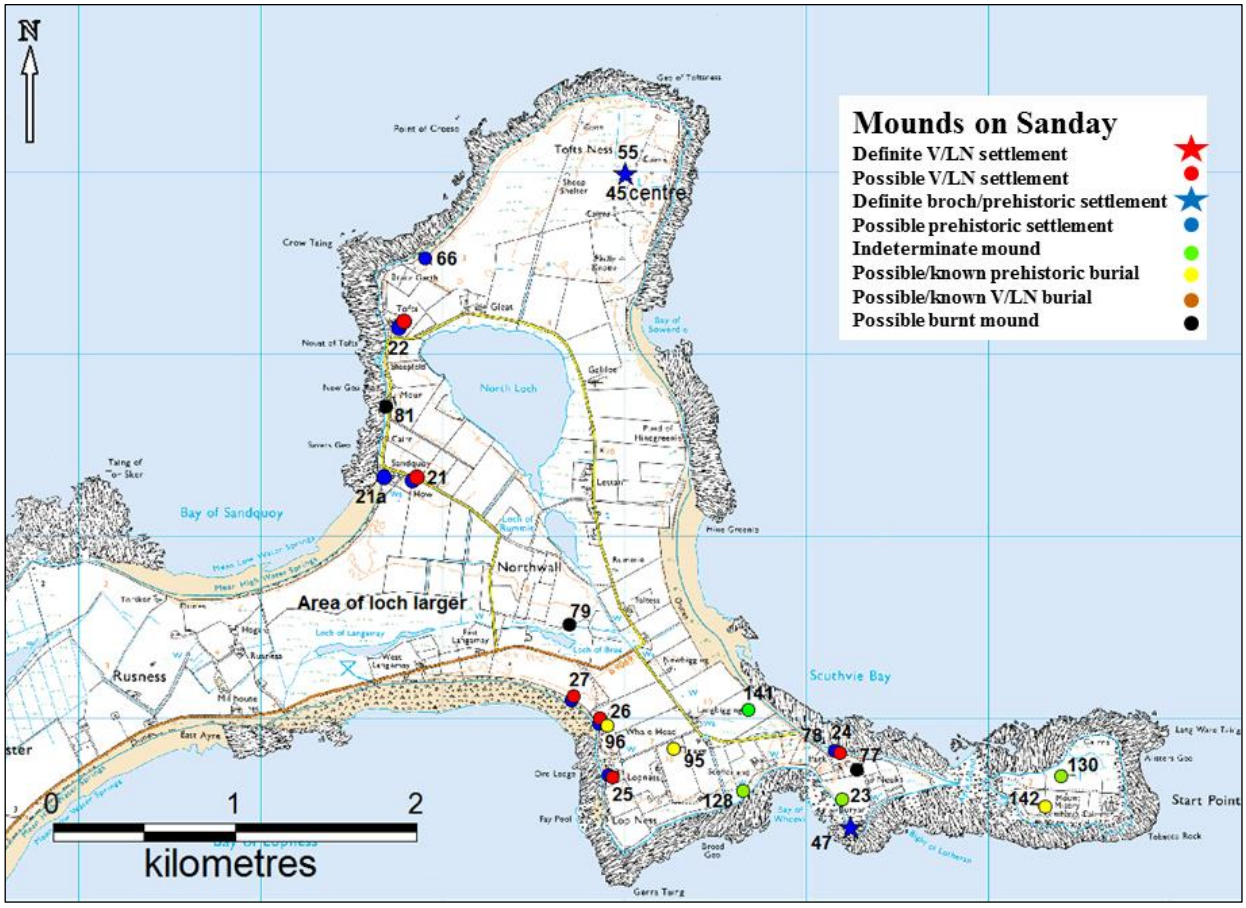

Fig. 7.08: archaeological mounds in the north-east.

The north-east peninsula of Sanday is dominated by two sandy and one shingly beach, and lochs. The Tofts Ness peninsula comprises rough and relatively damp machair; off the end of Lop Ness[12] is the rocky tidal island of Start Point. The area is very flat, with the mound of How (no. 21) the highest point at 16mOD. Early maps show that the now nearly completely drained loch of Langamay would in the past almost have cut off this area from the rest of Sanday (Fig. 7.09). The 1595 *Rentals* record three earldom bordland *Bu* farms in this small area, at Tafts, Walls and Lopness, but no recorded archaeology to confirm a Viking-Late Norse or earlier origin for any of these farms (Thomson 2008b, 25).

The area is best known for prehistoric settlement as revealed in the survey and excavations carried out on Tofts Ness and around How/Sandquoy (see below; Dockrill 2007). Interestingly, no later prehistoric or Viking-Late Norse archaeology was discovered during the intensive investigations of the Neolithic and Bronze Age landscape on the ness, although the geophysics on How – supposedly the site of two chapels – may actually have detected a settlement complex, perhaps including Viking-Late Norse archaeology. The only other confirmed archaeology is prehistoric: the broch at Buryan (no. 47).

There are three areas that might include Viking-Late Norse settlement. Firstly, possible "prehistoric" mound-sites along the west-facing coast of Lop Ness (nos 25, 26 and 27), all recognised from erosion-sections through modest coastal mounds. No artefacts have been found to aid dating, but they are as likely to be traces of Viking-Late Norse settlement as earlier structures. The same is true of two of the four sites in the second cluster on the west-facing coast of Tofts Ness (nos 21, 21a, 22 and 66). Brace Garth (no. 66) was interpreted, on the basis of geophysics done during the Tofts Ness project, as a burial chamber, perhaps with later prehistoric settlement lying across its lower slopes.[13] The "tell" of Sandquoy (no 21a), with an erosion-section, was interpreted as prehistoric through its linkage with an "earth-house" discovered in the 1920s. However sites 22 and 21 are more plausibly multi-period mounds. The geophysics mentioned above included the large mound of How ON *haugr* ('mound'; no.

[12] This name derives from ON *hlaupa* ('to leap').
[13] The site was earlier characterised as a possible broch.

21) where anomalies suggested extensive, possibly multi-period, settlement remains (Dockrill 2007, 38-9). The structural remains and midden-type material visible in a section eroded through a large mound to the north-west, on the coast at Tafts ON *topt* ('house site'; no. 22), might equally indicate multi-period settlement. Just to the east of Tafts lies a farm named Gleat, perhaps Cleat, ON *klettr* ('rocky eminence, isolated hillock, hill-nab'). On other islands farms so-named are discovered close to/with significant Viking-Late Norse archaeology (see p. 224 and p. 375 ff.).The third possible settlement focus is on the north-east facing sands of Scuthvie Bay where another mound at Park (no. 24/78) revealed archaeological deposits and is located just south-east of farms called Langbigging and Newbigging:[14] the *bigging*-names, ON *bygð* ('dwelling' 'settlement'), further indication of the possible significance of Sanday in the Later Norse earldom. The area has no recorded skaill-names.

As well as the concentration of *Bu*-names (with Gleat and the *bigging*-names) there are *nine* possible chapel-sites (nos 5- 9, 14, 21, 25 and 27). No trace remains of chapels 5-9, 14 and 27, although Stackald Brae (no. 7) was recorded in the 1920s with surviving walls. The Chapel of Start (no. 21) may survive beneath small mound 130, but there is no evidence. The two minor summits by How are cited traditionally as twin chapel-sites, supported by field-name *The Kirk*, but geophysics there suggested settlement-related deposits. Significantly the supposed chapel-sites reflect some of the same clustering as potential settlement, but there is absolutely no certainty in the record.

The prehistoric burial sites (nos 95-96 and 142), indeterminate (nos 23, 128, 130 and 141) and burnt mounds (nos 77 and 79) are all found on Lop Ness and Start Island. The prehistoric cist at no. 96 was excavated before being destroyed by erosion; Maesry (no. 142) was identified as a chambered cairn in early-twentieth-century investigations. The possible chambered cairn at no. 95 has gone. The indeterminate collection of small mounds, at Park (no. 23), are interesting in the context of: the erosion-sections nearby (no.24); the prominent mound at no. 141; the close proximity of the broch at Buryan; several purported "chapel-sites" and the *bigging*-names just up the coast – tantalising hints of a well-settled landscape.

[14] Both these modest farms are recorded in the *Original Name-Book*.

There are therefore three possible Viking-Late Norse settlement foci; around How, Lopness and Park. In the Viking-Late Norse period the sandy areas south-west of North loch and on Lop Ness would have been eminently suitable for agriculture, with Tofts Ness good for grazing; the beaches provided safe landing and Start Point a valuable look-out location for boats approaching the archipelago.[15] The host of later *Bu*-names and possible chapels also suggests an area rich in Later Norse (post-twelfth-century) settlement. However, there is no definite identification of Viking-Late Norse archaeology, and no time-depth can be established for the mound-sites.

Sanday's Ness landscapes: avoided by Viking-Late Norse settlers?

There are three Ness peninsulas on Sanday: Tofts Ness, Tres Ness and Els Ness. Tofts Ness has been extensively and intensively examined (Dockrill 2007) and provided a useful test-case for using geophysics to characterise sand-mounds. A settlement and funerary landscape was discovered under the sand, spanning the prehistoric period; the burial aspects apparently echoed on Els and Tres Ness (*NSA* 136-8; see below). It seems characteristic of Sanday that these "Ness" points were chosen to establish prehistoric funerary and, in the case of Tofts Ness, settlement landscapes. But the peninsulas were little reused in the Viking-Late Norse period, demonstrating that later settlement did not always gravitate to earlier locations. On Tofts Ness the Viking-Late Norse settlement may be just south of the flat peninsula at Gleat, Tofts, How and Sandquoy. Any possible Viking-Late Norse archaeology on the other nesses is found close to the necks joining them to the mainland: apparently incomers (and to an extent later Iron Age/Pictish people) were less attracted to these areas. This contrasts to the appropriation of the dramatic Broughs of Deerness and Birsay for high-status Viking settlement.

Tofts Ness

The northern end of the peninsula is sandy and flat, liable to flooding and water-logging, well-provided with lochs and water-sources, and scattered with mounds and dykes. The mounds were first described by Dr Wood in the *NSA* (1845, 136): several large mounds were identified, with a considerable number of smaller cairns, the latter often linked by arcs of banking. These 'mound-set'

[15] See the reference in *Orkneyinga saga* to establishing warning beacons on Sanday, fn. 4 above.

dykes often curve inland and back to the coast creating large enclosures, one of which on Tofts Ness contained a central large isolated mound (Lamb 1980, 9); Wood noted a similar arrangements on Els Ness around *Egmondshowe* (no. 106). Wood excavated some of the mounds: uncovering a stone built-chamber and stone-cist graves on Tofts Ness; while several on Els Ness contained 'cramp' – siliceous fuel ash slag. Mounds excavated on Els Ness in 1970 contained human bones in cists (OSMR 309). Most of the small mounds are interpreted as funerary monuments.

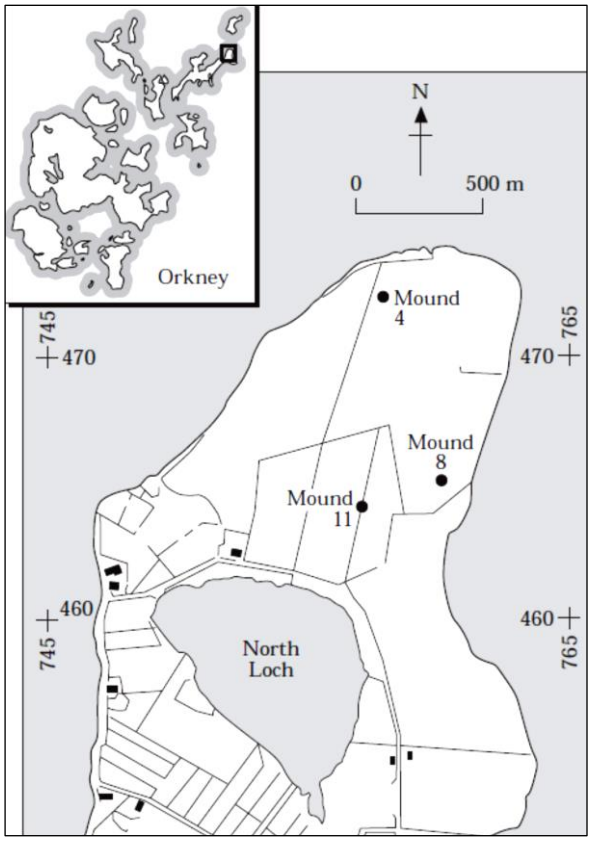

Fig. 7.09: Tofts Ness from Simpson 1998, 730.

The mound-field was surveyed in 1980 and the 'complex of cairns and enclosures' noted as '… the most extensive and best-preserved example' surviving on Sanday (Lamb 1980, 33), comprising three large visually-dominant mounds;[16] 300 small cairns;[17] one possible chambered cairn; enclosure banks and at least one enclosure.

[16] The three mounds were 26-33m in diameter, stony but undated and probably burial cairns. Dockrill interpreted them as chambered cairns (2007).
[17] These were 2 -15m diameter, with cores of stones covered with sand, in one of which outside the survey area a cist was visible, so these are probably funerary monuments.

The Tofts Ness Project pursued an integrated landscape approach linking site stratigraphy to landscape change (Dockrill 2007). Targeted excavation was combined with earthwork survey, geophysics, auger transects and test-pitting in the surrounding sandscape. Mound 11 proved on excavation to be a multi-period settlement mound from the Neolithic to Early Iron Age.[18] Reports described the energy devoted by prehistoric farmers to soil improvement, with interesting analogies to later land-management strategies (Dockrill et al. 1994).[19] The mound's formation was also investigated. Around the structures were carefully layered tips of midden-type material (ibid. 13-14). Complicated chains of use and re-use were recorded, with a symbolic as well as practical aspect inferred for the Neolithic disposition of organic material: 'Ethnographic evidence indicates complex relationships between the use of turf, seaweed and dung' (ibid. 15). Beyond the immediate mound were prehistoric managed infields and cultivated midden spreads. These strategies, also deployed in the Viking-Late Norse period, were practised on brown earth soils, with sand not becoming a significant component until the Later Bronze Age. Soil improvement and also creative use of midden-type material and settlement stability were clearly persistent factors in shaping settlement architecture and landscape.

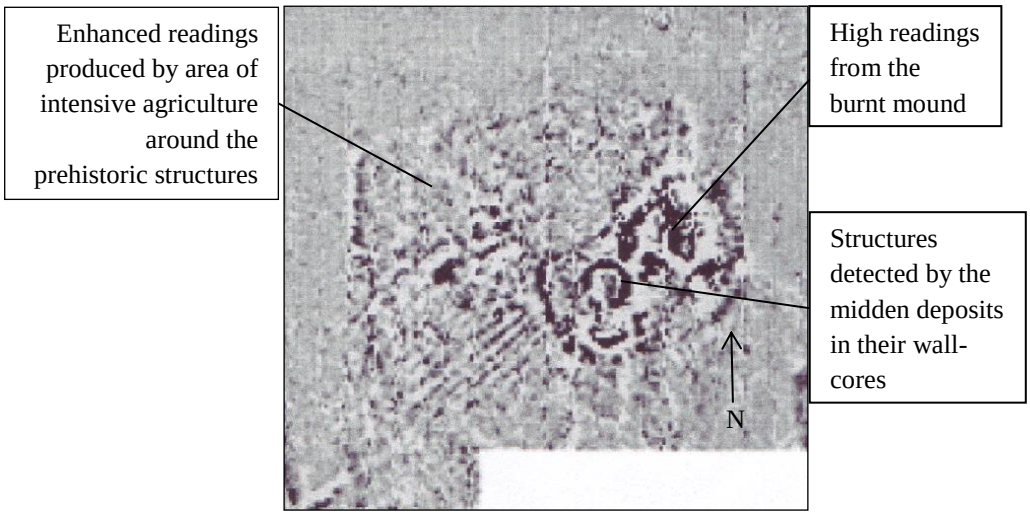

Fig: 7.10: Shelley Knowe, Tofts Ness. Magnetically enhanced areas of deep top-soil created by the addition of peat-ash to sand are visible around the structural elements: adapted from Simpson et al. 1998, 733.

[18] The earliest structure in the mound was fourth-millennium BC: Neolithic (Phases 1-2). Built down *into* midden-type deposits of that phase was an Early Bronze Age building (Phase 3). In the north-west corner of the mound Late Bronze Age structures (Phase 4) were discovered sealed by a windblown sand horizon (Phase 5), above which was a Late Bronze Age to early Iron Age roundhouse (Phase 6), with several phases of modification and contemporary middens.

[19] In prehistory there was change from acid brown earth soils to calcareous sandy soils (Dockrill et al. 2007, 10). In Phase 5 (LBA), the excavators suggested sand-blow changed the nature of the settlement by increasing its marginality when soils surrounding the site became sand-based (ibid. 81). But was this really so? Although more susceptible to erosion the soils would be light and better-drained and they were evidently still used and manured; but the climate was generally worse – this might have been more significant.

Some of the settlement areas discovered by prospection in the wider landscape were probably multi-period sites. Mound 8 may have been a multi-period settlement mound complex.[20] Geophysics was also conducted over indeterminate mounds, and the excavation record used in conjunction with earlier geophysical surveys to attempt to characterise those mounds; but because the mounds were by their very nature sites with 'accumulations of deposits covering several phases' it had to be conceded that 'a clean single phase plan [was] impossible' (Dockrill et al. 1994, 116). However, using a simple classification system and comparison with results from excavated sites the survey identified possible settlement-areas on mounds 8, 20 and 21 (and possibly 4, 6 and 7).[21]

Fig. 7.11: the substantial settlement mound at How, looking north-east.

[20] A resistance survey was done, along with magnetometer and contour survey. Magnetometry showed concentrations of midden-type material within wall-cores and around structures.

[21] A simple mound classification was proposed based on the strength of magnetic anomaly, thus: burnt mounds >50nT; settlement mounds 2-20nT and burial or natural mounds <2nT (Dockrill 2007).

Mound 11: was much larger than surface topography suggested, with a complex geophysics plot reflecting deeply stratified archaeology. A zone of possible magnetically-enhanced soils – infield – was confirmed by auger survey. Areas of occupation were distinguished from areas of agricultural activity by landscape context. Walls with highly magnetic midden-material cores sometimes looked like ditches (ibid. 117).

Mounds 9 and 10: no anomalies so burial mounds or natural (ibid. 120).

Mound 8: Shelly Knowe (121): a burnt mound complex, but not a typical one, possibly a multi-period, multi-functional or hybrid site; strong magnetic rings reflected midden material in walls of roundhouses to the south-west, and a zone of magnetically enhanced soil (soils created in the Bronze Age on sandy soils using stripped turf and ash/byre/midden deposits): see Fig 7.10.

Mound 4: which dominates the skyline: possibly a settlement site?

Mounds 6 and 7: chambered tombs, as cores of mounds were quiet, but possibly re-used as settlement sites?

Mounds 20 and 21: (50 and 60m in diameter) probably round houses with midden deposits and enhanced soils.

Mound 24: Bronze Age burnt mound, (fire-shattered stone, tank and possibly associated hearth(s) and structure); a specialised rather than settlement site, its function could be: cooking, sauna; textile production (fulling) (ibid. 394).

Mound 22 on coast: claimed as prehistoric burial, broch; geophysics suggests it is natural or a burial mound with possibly later settlement activity on lower slopes (ibid. 137-8), but looks very difficult to interpret.

Magnetic scanning around site 21, How, discovered extensive settlement-type deposits on better-drained soils (Dockrill 2007, 38-9 and 139; Fig. 7.11). The site was also traditionally associated with two chapels, perhaps recording a memory of significant stone structures. (There seems to be a tendency on Sanday to denote as "chapel" any potentially important stone building remains.) Dockrill argued How could have been the dominant prehistoric settlement in the area, with Mound 11 a secondary, smaller and more marginal farmstead: 'a hard-pressed community surviving against the odds' (ibid. 381 and 394). The survey overall was interpreted as depicting prehistoric farmsteads sited at intervals across the peninsula, but some of these sites could well have been multi-period, or even only later than prehistoric settlement. It is probable there was Viking-Late Norse settlement around How and its mounds.

Area 5: Cleat and Newark: Fig. 7.12

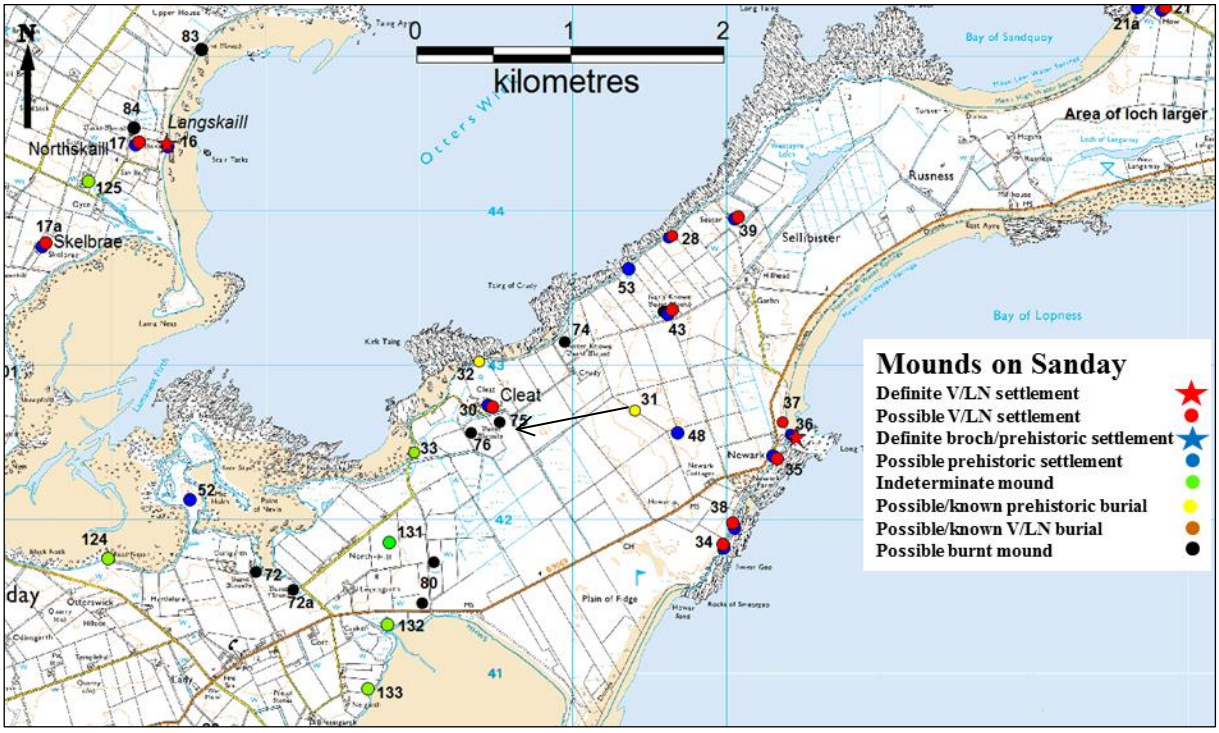

Fig. 7.12: archaeological mounds around Cleat and Newark.

This area of gently rising ground, between land liable to flooding around Westayre Loch and rough damp, grazing south of Cleat, has Viking-Late Norse archaeology at Newark (no.36) on the east coast, and a number of possible settlement sites that might include archaeology of the period. Land rises

from the north-west coast, facing the safe harbourage of Otterswick Bay, and from the south-east coast and Lopness Bay. The south-east is dominated by the dune fields of the Plain of Fidge: overall drift geology is almost exclusively sand. Soils are light and well-drained and the area offers a combination of freshwater lochs, rough grazing and potential arable land, with excellent harbourage and beaching points. The disappeared Chapel of Aristas (chapel 13) is traditionally located on the southern point of a gentle double summit (location no.48), on the basis of a Chapel Park field-name.

The area yields a range of mound-sites. To the south-west of Cleat the lower-lying, rough moorland of the narrow neck of the north-east arm of Sanday is characteristically shaped by smaller indeterminate mounds (nos 33, 131-133); the *NSA* described many small mounds on the 'barren moor' being eradicated by enclosure. Four of those mounds survive at nos 33, 132 (two mounds) and 133 and may be prehistoric burial monuments. Half-a-dozen burnt mounds have been tentatively identified by size, wet-ground location and burnt stone content: (nos 72, 72a, 74-76 and 80).

Fig. 7.13: the considerable mound of Cleat farm, looking east on a dismal day.

Cleat (no. 30) looks across this damp, mounded landscape and west across Otterswick Bay from a large, very pronounced "farm-mound" (Fig. 7.13). There is no conclusive evidence Cleat is a Viking-Late Norse settlement mound, but the name, ON *klettr* ('prominent rock'; see pp. 375-8 below), the discovery of a long-cist behind the farm (no. 31)[22] and a possible early chapel-site at the same location

[22] The gradual erosion of a small burial mound on the coast (no. 32), containing a stone cist has been briefly recorded since 1982. The location of no. 31 is not certain.

(Marwick 1923, 25-7; chapel no. 10), provide a plausible basis on which to hypothesise a multi-period settlement site.

Around the modern farm of Newark, itself on a notable mound, cluster a number of sites that together suggest a locally important Viking-Late Norse, and probably multi-period, group of settlement mounds (nos 35-37; 34 and 38). Sites 36 and 37 locate the two ends of an erosion-section over 100m long, interpreted as having a Viking-Late Norse component on the basis of two box-drains and coursed stone-walling held within layers of midden-type material (Gibson 2008, 82-3). The GoogleEarth image below (Fig.7.14) indicates the high potential of this coast, with earthworks visible behind the erosion-section. Midden-type material and coursed masonry also appeared in the erosion-section to the south (no. 35).

Fig. 7.14: Newark farm and mound-sites 35-37 © GoogleEarth.

Once again there is a related "chapel-site", no. 12 St Mary's Chapel, just south of the farm, attested only by the Mary Park field-name. On the hill behind Newark the supposed site of the Chapel of Aristas is more probably, or also, a broch site (no.48): the *NSA* records the remains of a circular double-walled building filled with peat-ash midden (which might suggest later re-use) on this highly-

visible eminence. A little further south another substantial coastal-mound (no.34) revealed stone walls and midden-type material, with a possible continuation of the site north-east at no. 38.

One final area of possible settlement lies in the township of Sellibister, possibly ON *skáli-bólstaðr* (‘hall’ ‘farm’) (nos. 28, 39, 43 and 53). The modern farm of Seater ON s*ætr* (‘homestead’) tops a considerable “farm-mound”. Although there are no other clues to the nature of that site, a spread coastal-mound, the Knowe of Skartan (no. 28), 350m south-west, is scarred by a long erosion-section revealing structural stone and midden-type material. In the *NSA* Dr. Wood related a local folk-tale in which Scartan (sic) is the location of Norse chief Otar’s imposing hall.

Less than 500m further down the coast sits another possible settlement mound (no. 53) characterised as a probable broch. However, there is nothing in the record of fragmentary structures and midden-type material which would not be found at a multi-period settlement site. This is also another location where a chapel (no. 11) was reported to have been constructed over a prehistoric site. The final site in this cluster lies on a spur of higher land (no. 43). Listed by Petrie as a broch in 1873, this medium-sized mound is labelled Ivar’s Knowe/burnt mound on the modern map.[23] However, the midden-type material and bone comb recorded there suggest another potential settlement site.

Although not at first glance a classic Viking-Late Norse settlement area, this part of Sanday provided a range of land-types and may have supported three settlement foci. These may have been inhabited at different periods, but as with the furthest north-east part of the peninsula there is evidence for potentially significant Viking-Late Norse settlement. Was north-east Sanday especially important? The area could monitor access from the north to the rest of the archipelago, and was far enough from the hub of earldom power to be the home of more independent-minded or wayward leading men of the Viking-Late Norse period. More archaeological investigation is needed firmly to establish its character.

[23] Raymond Lamb recorded ‘black earth’ and burnt stones in 1970 but these indicators do not always determine a ‘burnt mound’ (OSMR 332).

Area 2: Skaill, Bu and Sty Wick Bay; Els and Tres Ness: Fig. 7.15

The heart of the island in Lady Parish is the most tantalising area in Sanday for exploring mound-settlement in the Viking-Late Norse period, with no excavated or certain archaeology from that time, but a cluster of promising place-names and promising but as yet un-investigated sites.

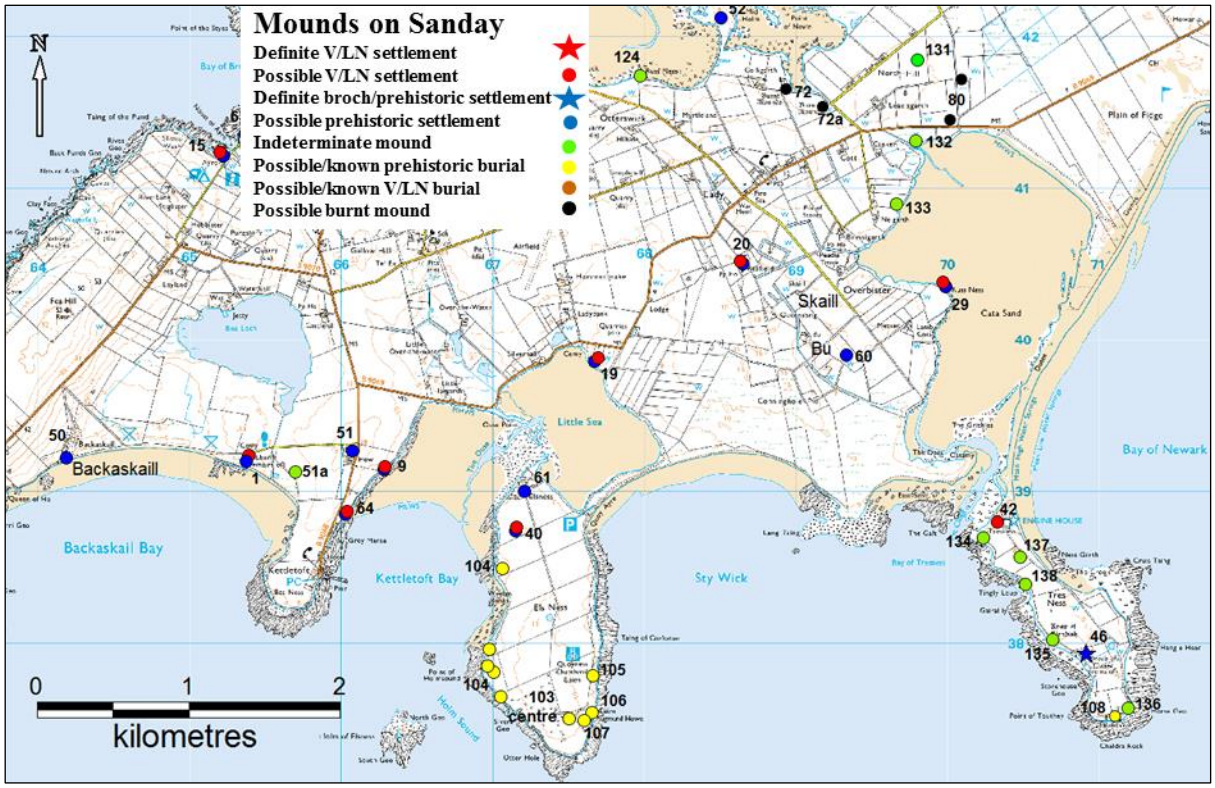

Fig. 7.15: mounds in Lady Parish: Beafield (no.20), Bu and Skaill.

This central zone is gently divided towards the north by a near west-east spur running from Gallow Hill in the west; aside from land over 10mOD on that spur, the whole area is covered with sand formed into low dunes, rough grazing improved by drainage and machair. In addition to the open, sweeping beach of Sty Wick Bay in the south, Lady Parish is characterised by shifting landscapes of sand-choked "seas": the Little Sea in the west, and Cata Sand in the east, enclosed by the dramatic dune-ridge leading to Tres Ness. The north-facing slope of Gallow Hill ridge looks across the sandy holms, tiny nesses and inlets of the southern end of Otterswick Bay.[24] On the relatively wide southern peninsula of the central zone a broad rise, reaching 13mOD around Beafield (no.20), overlooks Sty

[24] On this slope lies a farm named Odinsgarth, although its name was listed in the *Original Name-Book* as of a *new* farmstead.

Wick Bay, Cata Sand and the two ness peninsulas. On the upper slopes of this land, each on an eminence, lie the buildings of Beafield; Skaill, 400m to the south-east at13mOD; and Bu, 300m south of Skaill at 12mOD. The two Ness peninsulas, both less than two kilometres long and in the case of Tres Ness a mere 400m wide at most, with Els Ness c. 800m wide, are both exposed and covered with grass-secured sand. Tres Ness is flat and low, never reaching 10mOD and, merging with the dune ridges of Cata Sand to the north-east, is likely to have shifted its relationship with the mainland over the centuries. The same is true of Els Ness and the Little Sea, although that ness is a little higher with three minor high points around 12mOD (one at mound no. 40) in the south.

The possible Viking-Late Norse archaeology clusters in the central zone around the promising place-names, with outliers on the necks of Els and Tres Ness, and two on the north coast overlooking Otterswick (nos 52and 62). The Colli Ness site (no. 52) is another of Sanday's poorly recorded, prominent mounds originally identified as a possible broch then linked to a chapel (no. 4), and so establishing layers of occupation, but which might plausibly be a multi-period settlement site, although in this case the location is well-suited to a broch.[25] Icegarth mound (no.62) now reduced by ploughing was listed by Petrie as a broch-site and was known locally, like Snusgar in Sandwick, as "The Castle", suggesting stone structures were once visible.

The possible chapel-mounds in the central area are especially confusing and indeed the records for chapel nos 1-3 may refer to only two sites as discussed in Dr. Wood's *NSA* contributions (pp. 140-42) and by Hugh Marwick (1923, 26). Dr. Wood located one chapel, Carse of Henzie Hunt (no. 1)[26] near Overbister (Fig 7.16: in the vicinity of the field-name rather than the farm); RCAMS records the site by reference to the farm of Conninghole, about 250m east, and Marwick suggested the same chapel might be located by the Karny Kirk field-name (no. 3) on Skaill farmland, over a kilometre north.

[25] This site was also disturbed by military activity in the early-twentieth century.
[26] The "chapel" ruins were named in reference to a nearby mound Carse of Henzie Hunt. Dr. Wood mentions, in his roll call of Lady parish chapels, St Magdalen's Chapel in Overbister (*NSA* 141) and describes how in 1826 ploughing revealed a large subterranean passage near the foundation of a second chapel in Overbister. A stone 'causeway' (ibid.) also ran from the ruins of the chapel to a nearby and now drained fresh water loch.

Meanwhile, Dr. Wood also proposed a second chapel (no. 2) '200 yards [c. 180m] north' of no. 1 on the basis of the clay-bonded stone ruins of a small rectangular building.

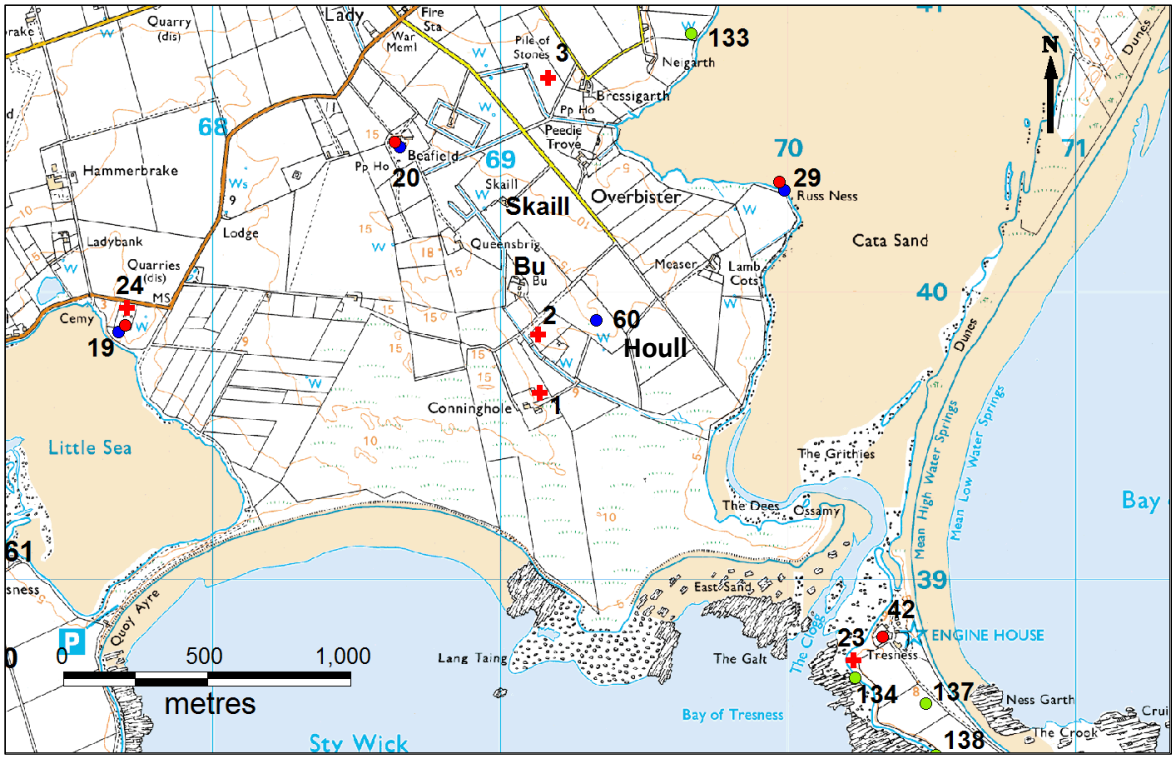

Fig. 7.16: the central area with mound-sites and chapels (red crosses).

There are four OSMR/Canmore records for the small area around the modern farm of Conninghole: chapel no. 1 'close to' (Canmore ID 3400) the existing farm; a farmstead, the ruins of which are still visible in a small enclosure to the north (Canmore ID 182026; Figs 7.17-18); a possible farmstead immediately to the north-north-west of the farm of which nothing survives; [27] and the site of Houll (no 60). The still-visible low mound at Houll was identified by a local, probably in the 1930s, as the find-spot for Iron Age artefacts, discovered sometime before 1928 amidst deeply buried "ancient structures".[28] The ruins of the farmstead in the enclosure north of Conninghole may be more complex than simply the remains of ruined, post-medieval buildings. One stretch of wall still stands on a notable mound, the enclosure is full of grassed-over stone, including a possible bow-sided building, and a system of drains crosses the south-east corner (Fig. 7.17).[29]

[27] Both these farmsteads are on the First Edition OS 1882 maps although the second may be less recent ruins.
[28] The eminence at Houll where the finds were made has a lumpy break of slope just off the crest to the south where dark grey sands were visible below a thin layer of windblown sand and topsoil (site visit 10th April 2011).
[29] Locals, including the owner of Bu, Peter Forgaard, know this site as having once been that of a chapel (site visit 10th April 2011). Within the enclosure is a decided platform edged in large rubble, with a gable-end

Fig. 7.17: The farmstead ruins near Bu and Skaill, looking south-west: with the drain-like feature to the right.

It is possible that the underground structures noted by Dr. Wood (*NSA* 141) may record remains pre-dating the farmstead, or those within which were found the artefacts recorded at no. 60. (In 1999 the *CZA* identified further possible settlement remains – midden-type material and structural elements – in a coastal erosion-section on Russ Ness (no.29), less than a kilometre to the north-east of Houll.)

That there should be so many, albeit poorly recorded and undated stone structures, or reported stone structures, around the two mound-located farms named Bu and Skaill, with the Beafield "farm-mound" just north, may be a coincidence, but the area demands more detailed investigation.[30] In the Viking-Late Norse period it would have been an excellent settlement location: on rising ground with commanding views across the sandy bay and sea approaches, provided with light soils, a freshwater loch and rough grazing. It may have been one of the most significant settlement locations.

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standing to over 2m to the east of this platform. West of the gable-end the platform slopes down. To the north another building platform and wall foundations under grass suggest a slightly bow-sided building about 8m by 4m. Unfortunately, the feature was impossible to capture clearly in a photograph. To the south are the foundations of a substantial wall which looks as though a now ruinous and more recent wall was constructed over it. At the western end of this wall, which shadowed the fence line, was what looked on the surface like a drain with flag covers; possibly another walk-in well like that at Bu (see fn. 28). A concrete trough base had been constructed over another stretch of west-east wall slightly to the north, about 8m obviously surviving: the base had split and fallen outwards revealing the wall foundations – two faces with rubble core, one metre wide and very well-built. There were indications of stone all over the site. The site needs both topographical and geophysical survey.

[30] The author was also shown, by kind permission of the owner, a beautifully built stone walk-in well in the yard of the farm of Bu. On the farm site stands the now occupied nineteenth-century cottage and much older blackhouse. Bu is on a slight mound most visible from the coast; Skaill, unoccupied in 2011, stands on a notable mound to the north.

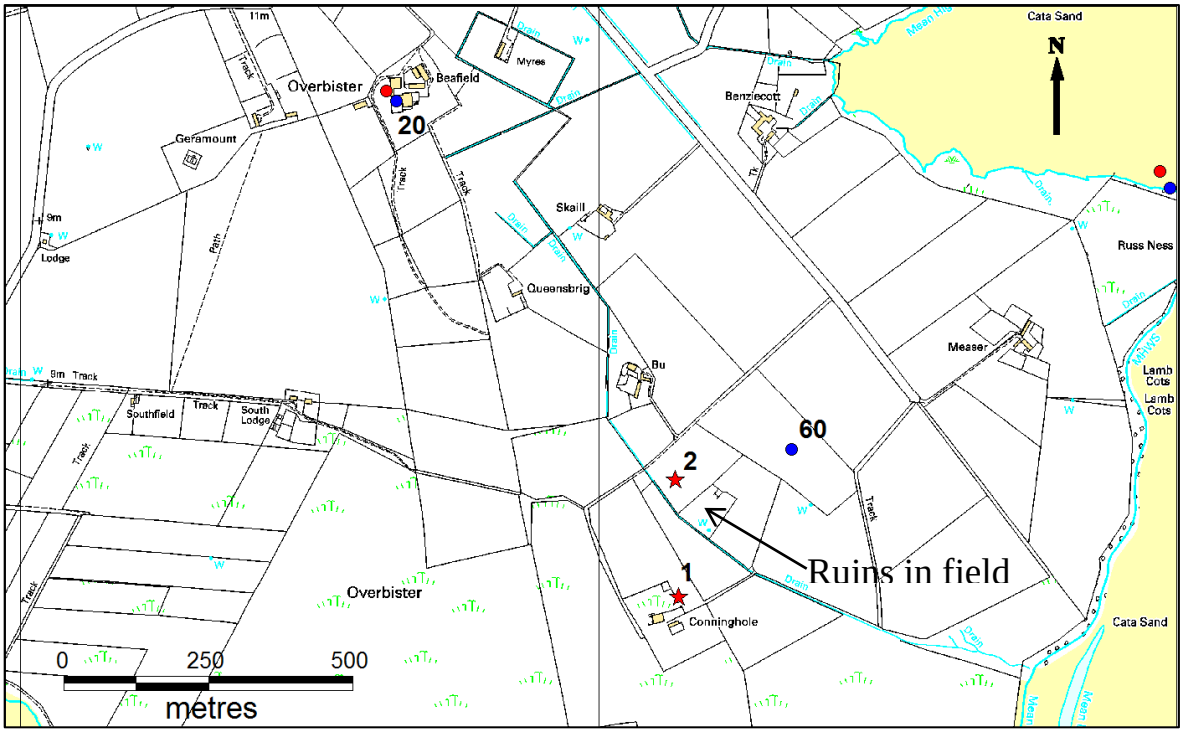

Fig. 7.18: Beafield, Bu and Skaill; possible chapels 'Carse of Henzie Hunt': no.1 and St Magdalen's Chapel: no. 2, neither chapel location is certain.

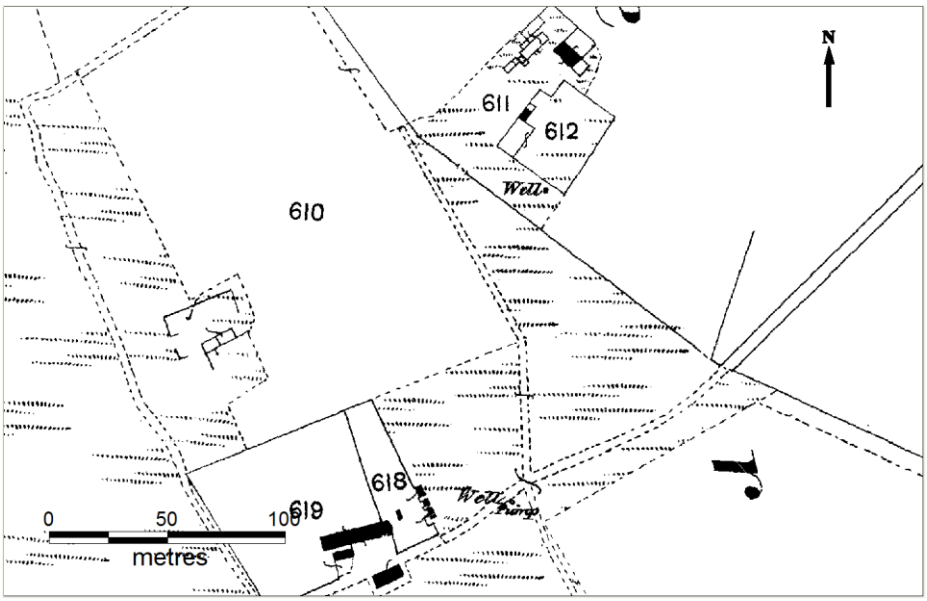

Fig. 7.19: 1882, First Edition OS map: Conninghole farm (still extant) in the south; a farmstead still visible as ruins to north-north-east; and unroofed and now disappeared ruins to the north-north-west.

The final site in the central area adds to the confused richness of the picture: mound no. 19 on the coast and chapel no. 24 together may comprise an extensive multi-period site, related in its latter stages to what became the parish church of Lady. The standing ruins at Lady are of the eighteenth-century kirk but are believed to encompass an older structure. The jumble of mounds to the south and

south-east have been extensively quarried but walls, floors surfaces, midden-type deposits and organic soils are all visible in the long coastal section (Fig. 7.20).

Fig. 7.20: left: the ruins of Lady Kirk and the much-disturbed mounds from the south; right: truncated midden and structural remains in the coastal-section below a more recent wall.

In the *NSA* Dr. Wood groups together antiquities of the three nesses of Tres, Els and Tofts, describing the remains as Scandinavian houses and burials. It is significant that he saw the archaeology of these areas as comparable, but rather than the landscapes of Viking-Late Norse settlement and burial Dr. Wood envisaged, these areas are dominated by prehistoric archaeology. Most of the mounds are now known as, or by analogy interpreted as, burial mounds, chambered cairns, burnt mounds or prehistoric settlement (*NSA* Vol. 15, 134-140). The southern end of Els Ness is scattered with dozens of probable burial cairns (nos 103 and 104); one group, with a linking bank (no. 107; two were excavated in 1980), is associated with Augmond Howe chambered cairn (no. 106); and slightly north is the chambered cairn of Quoyness (no. 105).[31] The evidence for Viking-Late Norse archaeology on the ness is slight: nearer the mainland a prominent mound (no.40) with no visible archaeology was designated by Raymond Lamb as a farm-mound; mound 61 was an alleged Petrie broch of which no trace remains.

Tres Ness presents a similar, if less well-characterised landscape. The possible Viking-Late Norse archaeology is again nearest to the mainland; mound no.42 is a farmhouse alleged to have been built over old settlement. In a pattern familiar from many of Sanday's possible settlement sites, a mound nearby may approximate to the site of a now-disappeared chapel (no. 23) reflected in the Kirk Banks name. The remaining mound-sites are mostly relatively small and indeterminate (nos 134-138), but

[31] Quoyness was investigated in the 1860s and is open to the public.

include a known chambered cairn (no. 108) and the probable Broch of Wasso (no. 46). Thus, as with Tofts Ness, all the securely identified archaeology on these two peninsulas is prehistoric or consists of smaller, indeterminate mounds, with a few, speculative identifications of later settlement.

Area 4: Backaskail Bay: Fig. 7.21

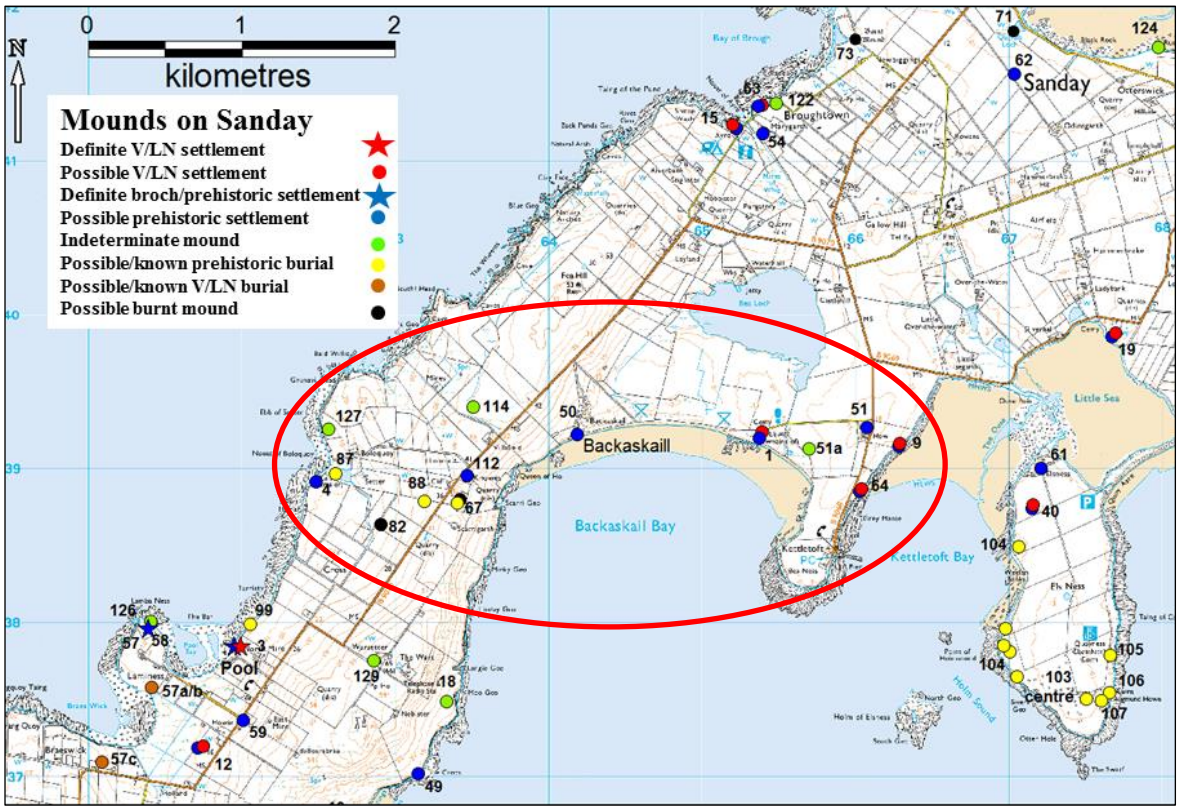

Fig. 7.21: archaeological mounds around Backaskail Bay.

There is a clear division between the archaeology in the west and east of Backaskail Bay. The west is part of the hillier south-west, rising to 45 OD on a spur of Fea Hill. Prehistoric burial mounds (nos 67 and 87-88), burnt mounds (82 and 67) and indeterminate mounds (nos 114 and 127) dominate the catalogue on this higher ground. However, Boloquoy (no.127), on the coast north of a sandy inlet in the rocky seaboard, is a large, stony possible settlement mound; to the south a recently discovered mound of similar size (no.4) revealed structural remains, anthropogenic soils and midden-type material with prehistoric artefacts, in a long erosion-section. Also found by this little beach were remains of a chambered cairn (no.87) backed by a freshwater loch, with another two such cairns alleged to lie beneath low rises on the slope above (no. 88). Amidst this prehistoric evidence the farm

of Setter (ON *sætr* ('homestead'); HY62800 38960), raises the likelihood there may be Viking-Late Norse settlement archaeology on this small, mound-rich sandy bay. On the eastern side of the spur three mounds overlook Backaskail Bay (nos 67, 112 and 114): no. 67 encompasses four small mounds, two probable burial cairns and a burnt mound; no.112 is the supposed site of a broch and no. 114 a small stony mound topped by a modern cairn.

Fig. 7.22: Backaskail Bay looking east: the modern farm of Backaskaill in the foreground, with Cross kirk and mound in the centre and the farm of How on the horizon.

Backaskail Bay itself is a classic Viking-Late Norse settlement location (Fig 7.22): a sandy bay sheltered by curving arms of land with rough grazing on machair in the centre of the bay and a freshwater loch behind; land that would have sustained arable cultivation to the north and east with higher pasture to the west. The horizon from the beach is shaped by mounds, including an Iron Age settlement mound or broch site (no.51 How). Any settlement on the bay-arms had extensive views across land and sea.

On the western curve of the beach-cliff below the modern farm of Backaskaill ON *brekka-skáli* ('skaill on the slope')[32] a considerable area of disturbed, mounded ground lies behind a long and rapidly eroding cliff-section, interpreted as a broch site (no. 50). Stretches of wall, flooring, orthostats and midden-type material are clearly visible above the glacial till (Fig. 7.23). One, possibly two short-cist

[32] The bay is spelled Backaskail, the farm Backaskaill on both modern and historic OS maps.

burials may have been discovered on the hillside behind (Canmore IDs 3420 and 3430). The farm itself sits at a break of slope looking out across the bay. Its substantial outbuildings face a large area of disturbed sandy ground to the east (see discussion of skaill-sites below). No diagnostic artefacts have been found and the identification of mound 50 as a broch remains uncertain: in this location, and linked with the Backaskaill name, the site could include Viking-Late Norse structures as well as earlier prehistoric and non-broch Iron Age settlement. Visible from the mound is a complex of settlement remains on the eastern side of the bay that almost certainly includes Viking-Late Norse elements.

Fig. 7.23: looking north-west: settlement remains in the erosion-section below Backaskaill farm.

Site no. 1 on the edge of the beach encompasses a disused seventeenth-century parish church and cemetery, allegedly built over an earlier chapel, with mounded areas and earthworks visible to the east and west of the church enclosure. In the beach-cliff section midden-type material and structural remains are visible, and stretches of walling were found in the quarry to the west of the church (site visit 10th April 2011; Fig. 7.24). Although this is a characteristic location for high-status Viking-Late Norse settlement there is as yet no evidence to date the substantial remains.

Other indications of possible settlement have been found in eroding coastal-mounds on the east coast of Bea Ness overlooking Kettletoft Bay (nos 9 and 64). Mound 9 is low and spread but contained coursed walling and midden-type material, and could be linked to a buried land-surface seen just north; mound 64 is similar and also associated with buried soils. Mound 51 under the large working

farm of How ON *haugr* (‘mound’); is a ‘characteristic Sanday tell’ (Lamb 1980, 17) on the highest point (18mOD) of the eastern side of Backaskail Bay, inter-visible with Cross kirk and settlement (no.1). Substantial masonry was discovered beneath mounds by the farmhouse in 1887, associated with Iron Age finds including a sliver finger-ring. Just south-west of the farm mound lies another large but indeterminate mound (no. 51).

Fig. 7.24: structural remains in small-scale quarrying west of Cross church, looking east.

There are therefore four or five possible Viking-Late Norse settlement sites in an area with a chapel-site and skaill-name. There is clearly much to be discovered about this bay which, more than any other on Sanday, can be compared to the bays of West Mainland as a “classic” location for Viking-Late Norse settlement.

Fig. 7.25: Backaskail Bay looking west towards Backaskaill, far right, and the spur of Fea Hill.

Area 3: Pool and Stove Bay: Fig. 7.26

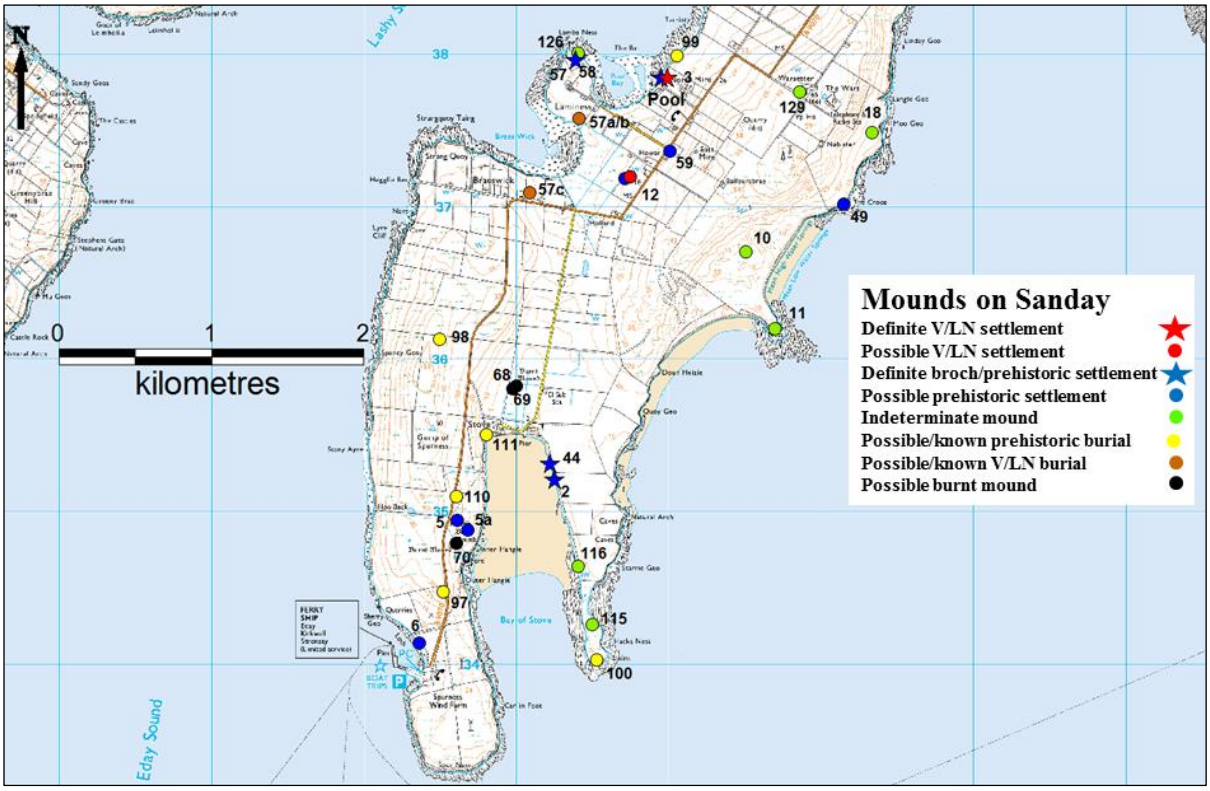

Fig. 7.26: archaeological mounds around Pool and Stove Bay.

Archaeology in the Pool area

The only area of the southern peninsula with known Viking-Late Norse archaeology is the area around the excavated multi-period site of Pool (see below). Unfortunately, archaeology within the immediate area of Pool, including on Lamba Ness, the rounded point about 500m wide forming the south side of Pool Bay, is neither well understood nor well recorded, so much so that John Hunter barely covers it in the Pool excavation monograph (2007, 12-14).

There are several undated mound sites around Pool (Fig. 7.27). Up on The Wart an indeterminate mound listed by Lamb has disappeared (no. 129). The most recent coastal survey (CZA 1999) recorded a new stone-rich erosion-section through an amorphous mound on Lamba Ness point (no. 126, possibly associated with Iron Age settlement no. 58, identified by the excavators of Pool), and a likely burial cairn, previously noted by Lamb, just north-east of Pool (no. 99). However, Lamba Ness would clearly repay detailed archaeological investigation. Two frustrating collections of evidence suggest the archaeology may be significant.

The first collection includes further Iron Age settlement to add to that identified at Pool, but – on present evidence – no broch. On the point of Lamba Ness sits a confused and complex earthwork: an irregular, disturbed mound topped by a sub-rectangular bank of structural remains, about ten by seven metres, with two small enclosures attached to its northern side (no. 58). Nineteenth-century records, imprecise in location and character, have obfuscated attempts to interpret this and other local sites. Inevitably identified in the *Original Name-Book* as a chapel, Hugh Marwick considered the mound as more evocative of a "Picts' House" (1922-3, 24). An Iron Age assemblage donated to the National Museum of Antiquities of Scotland in 1878 (Canmore ID 3423), including a bone comb, spindle whorls and quern stones, and submitted as from a broch-site, may have come from the same mound. Finally, the site was rapidly evaluated in 1985 through limited strip-excavation (Hunter and Dockrill 1985), and interpreted as a *non-broch*, Iron Age settlement (Hunter et al. 2007, 13). Although the primary evidence cannot be reviewed nothing in the available records contradicts this interim resolution. Whether there might be earlier or indeed later activity on that site remains to be discovered.

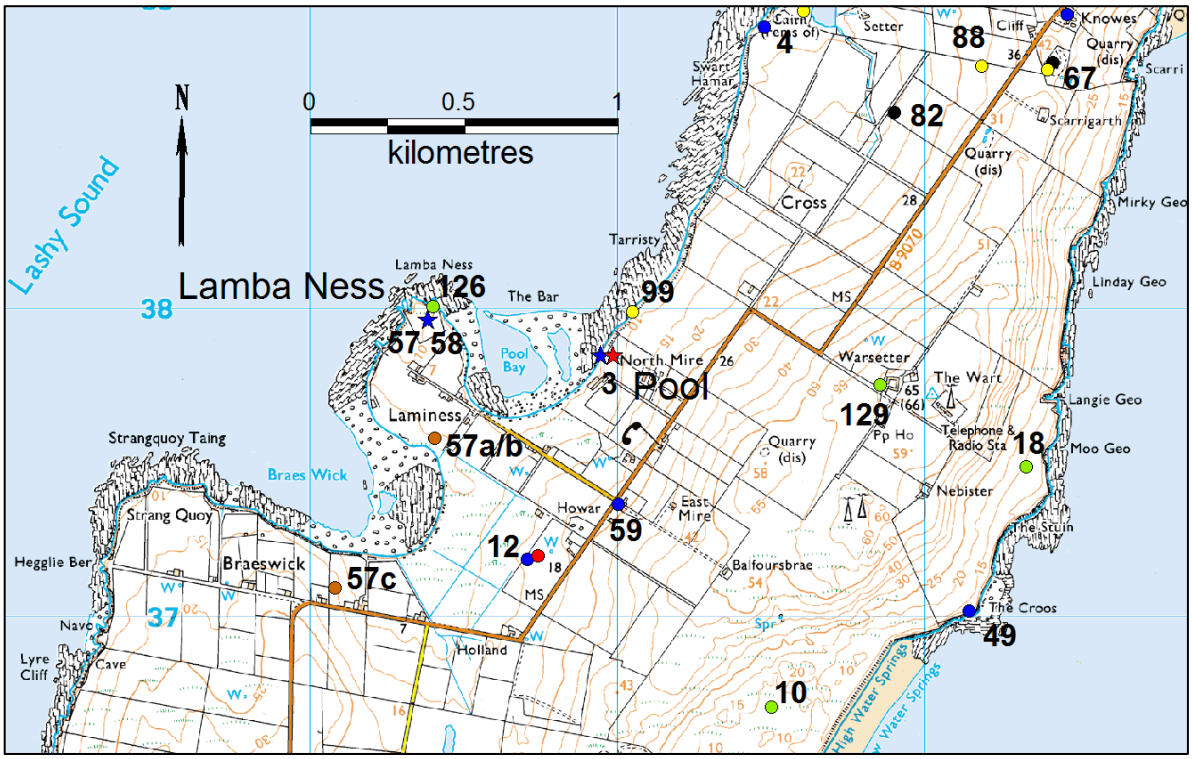

Fig. 7.27: detail of archaeology in Pool area: for key see Fig. 7.26.

There is also tantalising evidence for Viking-Late Norse activity close to the Pool settlement. Although impossible to locate precisely, three supposed ninth to tenth-century burials – interpreted as

burials, and also dated, on the basis of finds only – were discovered nearby in the nineteenth century: two on Lamba Ness (nos 57a and 57b), and one a little better located, at Braeswick (no. 57c).[33] The latter female burial yielded a tortoise shell brooch, beads and stone vessels. The male burial 57a included part of a sword and an iron spear-head; the female one, 57b, two oval "tortoise shell" brooches, a jet armlet, and fragmentary penannular brooch. These burials may be related and it is possible the first two were found dug into the Lamba Ness Iron Age settlement site, following the characteristic Orkney Viking-Late Norse tradition of burying in abandoned settlement remains (see p.150). Within a kilometre of Pool there are two other sites which supplement evidence for local Viking-Late Norse settlement. Petrie noted that during road construction workmen dug through 'remains of a village' near the old harbour of Pool (Notebook 9, c 1867, 36; no. 59: approx. location). A few hundred metres south-west steatite sherds were found in a reported 'kitchen midden' mound, which regularly yielded stone and shell on ploughing (no. 12). This site is called Howar ON *haugr* ('mound') suggesting Viking-Late Norse settlement may have located on an existing mound (natural or of earlier archaeology; Fig. 7.28).[34]

So, although evidence other than at Pool is uncertain, the area around the harbour was probably well-settled in both the Iron Age and Viking-Late Norse periods. The apparent lack of a broch and later a chapel is interesting, suggesting the area was possibly different to other significant settlement locations. There is a broch on Backaskail Bay (no. 50), and probably one on the east coast of the south-west peninsula over The Wart from Pool (no. 49). There were memories in the 1920s of a chapel near the summit of The Wart (no. 16), and possibly an early chapel at Stove (no.15) just over two kilometres to the south. The most convincing *early* chapel-site in the vicinity is on Backaskaill Bay (no. 26) nearly five kilometres away. It is possible the settlement at Pool took a different role in the Iron Age and then Viking-Late Norse period settlement hierarchies than first broch- and later skaill-related sites. The factor determining its status and character may have been its location on the harbour.

[33] Where an eroded coastal-cliff section produced steatite next to a boat-passage cleared through rocks (Canmore ID306441).
[34] Gregor Lamb records North, West and South Howar names around the site now called Howar, and marked as Braehowar on his map, adding further weight to the idea this had been focal site (Lamb 1992, Map 5, p. 82).

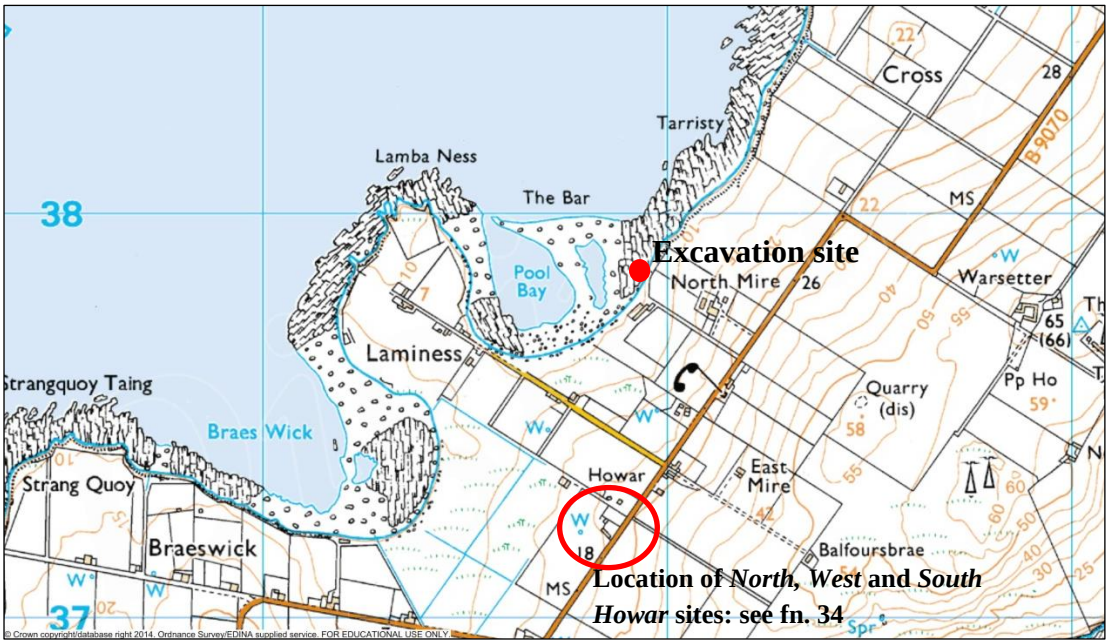

Fig. 7.28: The location of the Pool excavation site and the Howar mound.

Pool, Sanday: a multi-period mound

The excavations at Pool were conducted between 1983 and 1988, and published in 2007; they remain the only substantial, recent archaeological investigation of Viking-Late Norse settlement on Sanday. Pool emerged as a major multi-period mound-site. It has provided crucial further evidence to this research for Viking-Late Norse mound-building techniques in sand, and the concomitant use of a range of midden-type material. The results needed to be closely analysed for this thesis, despite the fact that the nearest known skaill-name is 2.5km north-north-east. Like Langskaill (Westray) the Viking-Late Norse layers at Pool were constructed directly into and re-using non-broch Iron Age (and Neolithic) structures and deposits, and so allowed scrutiny of any changes or continuities in methods of construction and in ways of altering the immediate mound landscape. Beginning in the Neolithic aspects of coastal mound-living could be tracked over millennia in the history of the mound at Pool.

Pool was always a good place to live (Hunter et al. 2007, 516). In the Neolithic the now impounded lochan to the south-west supplied loch-peat and fresh water. Although of lesser quality, loch-peat was important on an island otherwise almost completely without peat supplies. The sea probably lay further out beyond the natural rock breakwater, The Bar. By the Iron Age the sea had broken through

to create a harbour, with a sandy beach for drawing up boats and a sheltering 'pier' for landing. During the Viking-Late Norse period Pool and the beaches of Otterswick provided the best natural harbours on the island. At Pool, The Bar may have been improved in the Viking-Late Norse period, by the fashioning of its inside edge (ibid. 12). The accumulation of windblown sand after the Neolithic had created light, well-drained alkaline soils suitable for barley, oats and later flax. The flat Sanday landscape affords few areas of "upland" rough grazing; the settlement at Pool was thus relatively unusual in having access to higher land on the flanks of The Wart to the north-east.[35] As the loch dried up, fresh water was supplied by local springs. As well as sitting by a harbour Pool lies at a productive geological junction. Eday sandstone, and Eday and Rousay Flags are all available in the vicinity. Rousay Flags produce excellent building stone. The flat, gently-inclined rocky platforms also attract seaweed, particularly useful as fuel. At Pool, and to the west and south-west, Sanday's ridge-backed hills are formed from Eday sandstone. Although less suitable as building material these softer beds are associated with valuable clays, exploited at Pool to make pottery and as bedding layers – "luting" – for walls. The drift geology during the Neolithic was glacial till; by the Iron Age this had been submerged by windblown sand.

Fig. 7.29: the three-metre-high erosion section at Pool looking north-east.

Excavation summary

By 1979 the sea-pounding of the mound at Pool was inflicting serious damage. Almost half the mound had been eroded and interleaved midden and structural remains were visible over a 60m section. In the

[35] This may have encouraged an emphasis on dairy farming in the Viking-Late Norse period.

three metre high erosion-exposure the lower levels were dominated by reddish-brown ashy midden-type material, the upper by building elements and a darker, siltier midden (Fig. 7.29). The remains of the mound stretched at least 30m back from the coastal section. Over the years bone pins and combs, spindle whorls and pottery had been collected from the site.

The excavations revealed an extremely complex, multi-period settlement site. The earliest deposits were Neolithic (Phases 1-3, early-fourth millennium BC to late-third millennium BC) and dominated by tipped ash-midden material. A number of structural elements were sealed within these midden layers. After an apparent hiatus in settlement, a Late Iron Age cellular building complex was dug into the Neolithic midden (Phases 5 and 6, c. third-eighth centuries). This 'nucleated occupation' (Hunter 1997, 250) probably reached a peak during the seventh century. There was no evidence for any Bronze Age or earlier Iron Age settlement in the excavated portion of the mound. But half of the long-lived, complicated site had been lost to the sea before work began. Only a fraction of the mound was investigated; principal buildings had been lost and it was difficult to chart the shifting focus of settlement. The Later Iron Age buildings seemed to have been redundant by the phase determined as the Pictish/Norse interface period, although it was almost certain activity had continued somewhere on site: in the excavation area abandoned buildings were obscured and infilled by midden-type material.

Pool has been argued as especially significant in providing information on the contentious transition from Pictish Orkney to island life shaped by Viking-Late Norse cultural priorities. A 'degree of assimilation' similar to that proposed at the Brough of Birsay was 'observed on the basis of structural continuity and persistence of native pottery' (ibid. 250). As will be discussed below, the excavation challenges produced by disturbance and major phasing and dating problems weaken this claim. In any case elements of structural continuity are not necessarily an indication of *cultural* continuity. The physical focus of the surviving portion of the site shifted after the apparent hiatus in the later Iron Age. Two sub-rectangular buildings were built, 'one reutilising extant lengths of walling in a manner not dissimilar to that recognised at Skaill [Deerness]' (ibid. 251). Difficult to interpret structures (18 and 19), midden-spreads, and a much plough-damaged, sub-rectangular, post-based building in the north

of the excavated area (Structure 25) contributed much of the evidence for what is described as a "gradual transition" to Scandinavian domination, also characterised by artefactual 'ambiguity' and 'confusion' (Hunter at al. 2007, 131 and 137-8; Fig. 7.30). Wall re-alignment, re-building over previous structures and layers, re-use of structural components and 'idiosyncratic' walling all mark the Interface Phase 7 (later-eighth to mid-tenth centuries; ibid. 123-137). Finally in Norse Phase 8 (mid-tenth to later-twelfth centuries), a "classic" longhouse is constructed on the site (Structure 29; Fig. 7.32) linked to a substantial amount of midden deposition which considerably altered the topography of the mound.

The Character of the Excavation[36]

The most exciting aspects of the excavations were their extent and depth, and that work encompassed both structures *and* extensive midden deposits. Evidence from buildings, (probably) related artefacts and environmental samples all contributed to final interpretations. At most Viking-Late Norse sites published by the beginning of the 2000s, either extensive environmental sampling was conducted without clear structural context (Hunter et al. 2007, 147; e.g. the Birsay Bay sites), or some understanding of structures was achieved without excavation of contemporary midden (e.g. Skaill [Deerness]; Tuquoy [Westray]), but not both. Although this is no longer the case, with work at Quoygrew (Westray); Skaill (Sandwick); Old Scatness (Shetland) and Bornais (Western Isles) now fully or partly published, Pool remains one of the key sites enabling Viking-Late Norse buildings to be placed in their mound context.

There are undoubted difficulties with interpreting the Pool excavations. Some of the challenges were standard excavation problems, but these were exacerbated by the long-lived nature of the site and the character of the structures, their construction and surroundings. Understanding deep, constantly re-configured mound-deposits is extremely hard. Appreciating the impact of these complications is important because it raises questions about phasing, the contemporaneity of Viking-Late Norse structures, the nature of the mound's architecture and, fundamentally, about the "gradual transition".

[36] All page numbers given as in-text references in the excavation analysis sections will be to Hunter 2007 et al., unless otherwise indicated.

Around one-fifth of the original mound was excavated, with the open area trench shaped rather unsatisfactorily by initial exploratory trenches. Methodical progress downwards was hampered by a dry-stone wall running across the mound which remained in place for most of the excavation, dividing it unhelpfully in two in a crucial location. Two main axial sections were maintained as running sections 'at times with some difficulty' (Hunter et al. 2007, 18). Over the years sand-sections collapsed. Later disturbance compounded the inevitable problems flowing from analyses of already redeposited material.[37] With widespread re-use of midden-type material, especially in wall-cores, and with many structures founded by digging down into earlier deposits and incorporating existing wall-lengths, there are inevitable uncertainties about the association of artefacts/ecofacts with building phases.[38] Much Iron Age material was redeposited, and complex refacings and partial rebuilding of standing walls made it difficult to distinguish 'between major structural change in the evolution of the site and more minor constructional processes (ibid. 77). Discussing Phase 7.2 (Transition phase) Hunter conceded he was '*assuming* contemporaneity' of Structures 27 and 28 (ibid. 136, my italics),[39] and acknowledged contemporary features were hard to identify. Many if not most of the artefacts were collected from tipping and 'outside deposits' (ibid. 81) rather than from stratigraphy internal to the buildings.[40] The majority of the "Late Norse" (Phase 8) assemblage came from tipped/levelling deposits over a metre thick (ibid. 150). Redeposition was encountered in all phases: of Neolithic ash-material exploited in later construction (ibid. 79) and of Iron Age material in Viking-Late Norse phases (ibid. 162). The crucial question of how outside midden-type material can be related to structural phases is not dealt with head-on and this undermines the security of dating based on artefactual assemblages.

[37] Pieces of the same antler mount were found in phases 7.1 and 7.2 emphasising the difficulties of producing reliable phasing on this kind of site (Hunter et al. 2007, 123). Dealing with Phase 7.1 (Interface) Hunter writes candidly that it was difficult to establish which structural elements were contemporary with each other (ibid. 128). The northern structures of this phase were so positioned on the flank of the mound as to have suffered considerable plough damage.

[38] Residuality is likely to characterise many of the finds: but also the movement of artefacts in sandy deposits can introduce a number of *intrusive* finds, particularly within buildings.

[39] Structure 28 – on the structural and stratigraphic evidence available – might as easily be *later* than Structure 27. Their chronological relationship might have been better left undecided.

[40] The way in which information is given in the detailed analytical chapters unfortunately makes it very difficult to work out the type of layer/deposit/feature from which artefacts were recovered.

Dating the phases

The dating of the phases is in its certainty ultimately unconvincing. Only 22 radiocarbon dates were retrieved and their value needs to be set against widespread evidence for redeposition and disturbance summarised above. Furthermore, the Phase 7 dates, the putative period of primary Scandinavian activity, fall across a flattening in the calibration curve 'which offers a wide range of probable calibrated dates' (Hunter et al. 2007, 139).[41] Of the 22 dates, half were from Phase 7, Interface, and Phase 8, Norse. Phases 7.1 and 7.2 were concluded to span the later-eighth to later-tenth centuries, on the basis of seven dates.[42] Two dates for Phase 8.2.2 (the only dated sub-phase in Phase 8) gave a range from the later-tenth to early-thirteenth centuries. Artefacts could not really help as most were discovered in midden-deposits. The case for a dated "Viking Age Transition" also relied on very few diagnostic objects. The appearance of large, rectangular-sectioned whetstones in Phase 7 was interpreted as indicating Norse incomers, but this argument was based on an assemblage of at most ten items; and of those four from Phase 7.2 came from the same context (ibid. 377). The first Norse-type comb fragment appeared in Phase 7.2 (Ambrosiani A3: AD850-950); further singleton fragments appeared in Phases 8.1 and 8.2.1; only with Phase 8.2 were over five fragments found. Only 12 sherds of steatite were found in Phase 7.1, compared with 198 in Phase 8.2. Could this limited evidence for culturally-distinctive artefacts in Phase 7.1 have been the result of contact (or indeed artefact-intrusion) rather than colonisation? By contrast Phase 7.2 produced 56 worked bone objects, particularly long Norse pins, although it is worth reiterating that most came from midden deposits (ibid. 139 and 461). This relatively small collection of diagnostic material, even when combined with the radiocarbon dates, seems insufficient on which to determine a "gradual transition". Although the broad dating might be accepted, the association of finds with particular structural elements, and of both to date ranges, is much less certain than is presented in the monograph. We are therefore freer to think about other explanations and cultural contexts for the building techniques and mound-creation strategies employed.

[41] Although Interface Phase 7.1 produced few datable artefacts, Hunter suggested the radiocarbon dates confirmed relatively early primary occupation, possibly later-eighth century. It would be worth revisiting the primary data to reanalyse the material.
[42] One date from phase 7.1 was assumed to be residual.

The Development of the Settlement Mound

Pool began life in the Neolithic as a much more level, near-coastal site. The final shape of the increasingly mounded Iron Age settlement was obscured during the site's reconfiguration, using deep accumulations of organic material, in the Viking-Late Norse period. In the south of the trench Norse "tipping" built up over one metre thick; the area around Structure 21 demonstrated 'the extent to which accumulating midden and rubble had contributed to the increased height of the open surfaces' (Hunter et al. 2007, 126). Fully assessing topographical change is made difficult by the lack of reference to slope throughout the monograph,[43] but the site was clearly already a mound when drawn into the Viking-Late Norse cultural sphere. The mound was then considerably reshaped and augmented by levelling-up, re-use of building elements, creation of structured middens and spreading of midden-type material. The increase in height and bulk was especially marked during that period.

Excavation: building techniques, mound-formation and use of midden-type material

<u>The Neolithic:</u> Phases 1-3 (early-mid-fourth millennium BC to late-third millennium BC)

Some structural techniques, construction devices and ways of using midden, ash and clay persist from the Neolithic into the Viking-Late Norse period. Creative expertise in building utilising sand and midden-type material had thus been honed since early prehistory. What is also apparent is that, although used routinely for work-day applications, midden-type material was also integral to cultural and less essentially practical processes. Problems of phasing are less critical in assessing these techniques and approaches.

The Neolithic layers were predominantly the result of continuous "tipping" of ash-dominated midden, produced by repeated 'small-scale and localised' farming and domestic activity (Hunter et al. 2007, 22). Over time this created mound-altering slopes of laminated, highly stratified 'sand and burnt organic material containing plant remains and domestic debris' (ibid. 22-23 and 63).[44] The 14

[43] This is despite the modern mound dropping 0.2m down to the north from the central farm wall, and nearly a metre to the south.

[44] It is interesting that Hunter notes sand-horizons within these layers – two in particular were used as marker horizons to correlate sections – but also that these sand-blows disrupted neither agriculture nor settlement to any

Neolithic structures, or part structures, were built into these accumulations (ibid. 76). The ash-middens were also used for levelling surfaces before construction and as firm foundation platforms;[45] they were cut into to form the rear-revetting for single-faced walls and mixed with clay to establish internal floors (ibid. 31-58).

External 'compressed surfaces' were also recorded (ibid. 70). These trampled, midden-enriched areas were walked across and used as outdoor work-areas; they were landscaped with patches of flagging and these 'midden surface[s] played a significant role in the daily life of the inhabitants' (ibid. 71). In Phase 3 the tip-structured middens were also terraced. Burning loch-peat and turves, seaweed and dung for fuel created a vast amount of ash, as more needed to be burned than with wood or land-peat.[46] This ash must have been routinely stored, to be reused for a range of purposes. [47] Hunter questioned whether this use of domestic debris was solely functional – structural, thermal or just convenient – arguing that "tipping" 'embodied a number of attributes', symbolic enhancement as well as practical application (ibid. 64-65). Thus ancestral middens memorialised past actions, and came in very useful; ritual elements were woven into proven constructional processes.

Ashy midden-material, with a high artefactual component (c.f. Buckquoy p. 146 above) was used in wall-core and building-infill. Hunter hypothesised wall-infill material rich in artefacts may have been deliberately selected (ibid. 31 and 70) and also that building status was advertised using wall-thickness. Structure 8 is built out with a series of casing walls up to 3m wide packed with midden-infill between the successive wall-skins (ibid. 41). Midden was integral to this symbolic aggrandising of buildings. 'The process of using artefactual material in wall fills was clearly a conscious one and perhaps these sherds may have been "ritually charged" according to the context of disposal' (ibid. 66). The incorporation of hearth residues into the fabric of the settlement may also have encapsulated its capacity to provide warmth, food and hospitality.

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great extent. These accumulations of sand – probably each in one large storm – were obviously something the inhabitants learnt to cope with (ibid. 63).

[45] For example, the 'levelling band of foundation midden' in Phase 2.

[46] The filled-in loch peat may have contributed to the characteristic colour of the Neolithic ash-midden "tipping".

[47] Toft's Ness middens were deliberately cultivated (Simpson et al. 2007).

Equally apparent in these Neolithic phases was the re-use of previous structural elements. This architectural method also relied on the availability of midden-type material. Buildings were directly superimposed, with ash-deposits used to level surfaces. Hunter concludes 'retention of place' was important, reaching beyond the practical to tap into the past use and organisation of space and its 'existing meaning' in the landscape (ibid. 66; and see Part IV David and Thomas 2008).

Iron Age: Phases 5-6 (third to mid-ninth centuries)

The excavation area was reoccupied in the later Iron Age after a hiatus of two millennia. Phase 5 (third-fourth centuries) encompassed two small buildings, but Phase 6 (fourth-eighth centuries) witnessed the establishment, alteration and abandonment of a series of cellular buildings focused around Structures 18 and 19 (Hunter et al. 2007, 83-86; Fig. 7.30). Elements of domestic Structure 18 were re-used in the Viking-Late Norse period. Inside and outside Neolithic midden-type material was re-used and trampled and added to with Phase 6 layers. It is interesting to consider what would have been visible then of the Neolithic settlement. The Iron Age structures were cut *into* ancient tip-layers to create characteristically prehistoric semi-sunken buildings (ibid. 76-77). This suggests an awareness of these layers, which the passage of time would have reworked to form firm, silty material ideal for revetting walls and stabilising sandy areas for occupation.

Complex building techniques were recorded in more detail for this period as structures survived in better condition. Structural changes were visible in the horizontal fabric, including the expected blocking of old and insertion of new openings and entrances, but also difficult to interpret refacings and partial rebuildings (ibid. 77).[48] Structure 23 is a case in point. Interpreted as coming towards the end of Phase 6, this rectangular building displayed a range of constructional techniques, but remained hard to understand as a coherent structure. It is also apparently during this phase that an area of midden about ten metres wide was walled round with a roughly triangular enclosure, surrounded by rough flagging on which to stand to throw onto the demarcated heap (ibid. 101). The final phase

[48] This latter approach made it hard to interpret the association of wall-core material with phases of change and may have implications for dating, and linkage of alterations to phases.

featured rubble and midden spreads across occupations areas, and was interpreted as settlement contraction during the decline of the generally broch-focused system (ibid. 104-6); certainly the focus of settlement had shifted. However the spreads of midden imply activity continued close by; the environmental record also suggested the landscape was still being farmed and grazed (ibid. 114).

In his discussion of the Iron Age phases Hunter again tackles the determination of Pool's prehistoric dwellers to revisit places: the 'implicit need to focus settlement in the same place for three millennia' (ibid. 110).[49] This was inspired he argued by more than a practical interest in available stone and midden-material for new buildings. The re-use of Neolithic walls (visible, remembered or accidently encountered) provided the 'added stimulus of increased status or prestige' (ibid. 110). Incorporating parts of an ancient building boosted the credibility of incoming inhabitants. The development of the Phase 6 structures was complicated by the builders' resolve to incorporate wall alignments discovered amid deep midden-material: 'Pictish wall lines were partly defined by whatever walling was there already … the location was somehow more important than the design which the debris conditioned' (ibid. 112). Certain spaces or alignments had become symbolically charged.[50]

But the *process* of re-use was perhaps also significant. Maintaining a cycle of material and re-use were key aspects of mound-living. The use of midden-type material was a long-established feature of mound architecture, but the deployment and significance of the process apparently intensified in the Viking-Late Norse period. Yet in Hunter's narrative, despite the analyses assayed for the prehistoric phases, the theoretical interpretation became much more muted for the Viking-Late Norse period – the zenith of mound-making.

[49] In fact there was a break in settlement in the excavation area suggesting this impetus was stronger and perhaps differently constituted in different periods.
[50] Hunter also noted that more important buildings in particular retained their outlines while supporting ones were continually altered (ibid. 113).

<u>Interface:</u> Phase 7 (later-eighth to mid-tenth centuries)

In the "Transition" period the continuity of architectural place was sustained, despite the shift of focus/hiatus in the Later Iron Age; parts of earlier buildings were re-used in the supposedly 'sudden structural change at the beginning of Phase 7',[51] and a clear but more gradual alteration in the artefactual record.[52] Hunter appears to suggest the confused assemblage of objects implied cultural 'evolution' (Hunter et al. 2007, 121). This argument was stretched to suggest that two separate building complexes in one sub-phase were dominated by different cultural groups. Hunter accounted for this through 'persisting native survival' (ibid. 142). But the dating difficulties, hard to decipher structural phases and artefactual redeposition come together in a way more than usually antithetical to clear stratigraphical understanding. New influences were in action during this phase but the nature of any transition remains hard to define.

A more sceptical interpretation of the evidence set out below would suggest a more synchronous change in architecture and landscape-management. The Phase 7 reconfiguration of the site would thus have emerged from a period in which incomers, or their influence, may have brought new things; the strikingly different buildings were introduced only with consolidation of settlers' social authority. The indigenous population, rather than huddling in their separate building defiantly clinging to familiar objects, had been assimilated, by agreement or necessity, as dominant cultural mores dug in. The main domestic building on the mound was almost certainly outside the excavation area, perhaps eroded away: if that had been investigated the picture might have been clearer, with the confusion of Phase 7 structures resolving into the organic development of less culturally-critical ancillary buildings.

[51] A "sudden change" perhaps undermined by the recording of *a rectangular* building in the Late Iron Age phase – Structure 23; this also highlights the difficulty of relying for dating on diagnostic building layouts in peripheral or supporting buildings in particular.

[52] The change included the introduction of steatite, new worked bone artefacts and whetstones, changes in the use of marine resources and the processing of flax (121); but see above on the difficulties of the artefactual record.

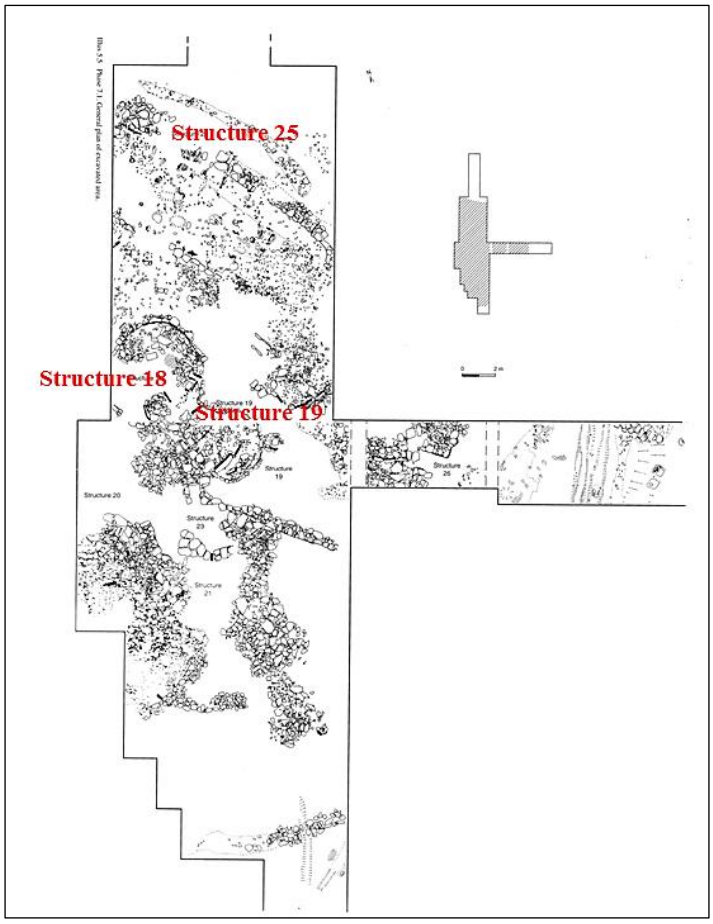

Fig 7.30: Pool Phase 7.1, after Hunter at al. 130.

Two small linked circular buildings assigned to Phase 7.1 were especially lacking in definition (18 and 19: Fig. 7.1), picked out through contrasts between internal and external surfaces and artefactual assemblages. Both were built into earlier buildings and the excavators faced a challenging confusion of apparently random and much modified lengths of walling, midden-spreads, rough flagging and rubble. There was also a dramatic increase in the infilling of earlier structures using accumulated midden and rubble (ibid. 126-127). North of those two buildings, and impossible to relate stratigraphically (ibid. 168 ff.), were the ploughed-out remains of a possibly *rectangular* building (Structure 25). The remnant internal features – flagging, migrating hearths, small orthostat post-sockets – were similar to other Viking-Late Norse structures, but only disturbed elements of a building skeleton survived. Not surprisingly the building was notable for its 'artefactual confusion' and 'ambiguity of cultural influences' (ibid. 131) with Iron Age pottery as well as steatite.

The central cluster of buildings appeared to develop as a complex of interconnected elements:[53] a flight of steps, passageways and areas of flagging. Hunter argued such linked structures were not typical of earlier Viking-Late Norse settlement in the Northern Isles, referring to the characteristic separate farmsteads at Jarlshof and Buckquoy (ibid. 122). But recent excavations in Orkney have uncovered just such organic collections of ancillary buildings (e.g. Skaill [Sandwick]; ibid. 132-5). In the subsequent Phase 7.2, two rectangular "Scandinavian" buildings (27 and 28) were discovered in the south (Fig 7.31). Their stratigraphical relationship to each other could not be determined and walling was often 'nebulous', its presence inferred from the distinctive organic, artefact-rich wall-fill. Hunter was 'assuming contemporaneity' between building 27 and the differently constructed, flagged end of Structure 28: no evidence clearly supports this contention (ibid. 136).[54] The supposed shared wall between them looks as much like the result of re-use as sharing. Structure 28 was probably a later construction.

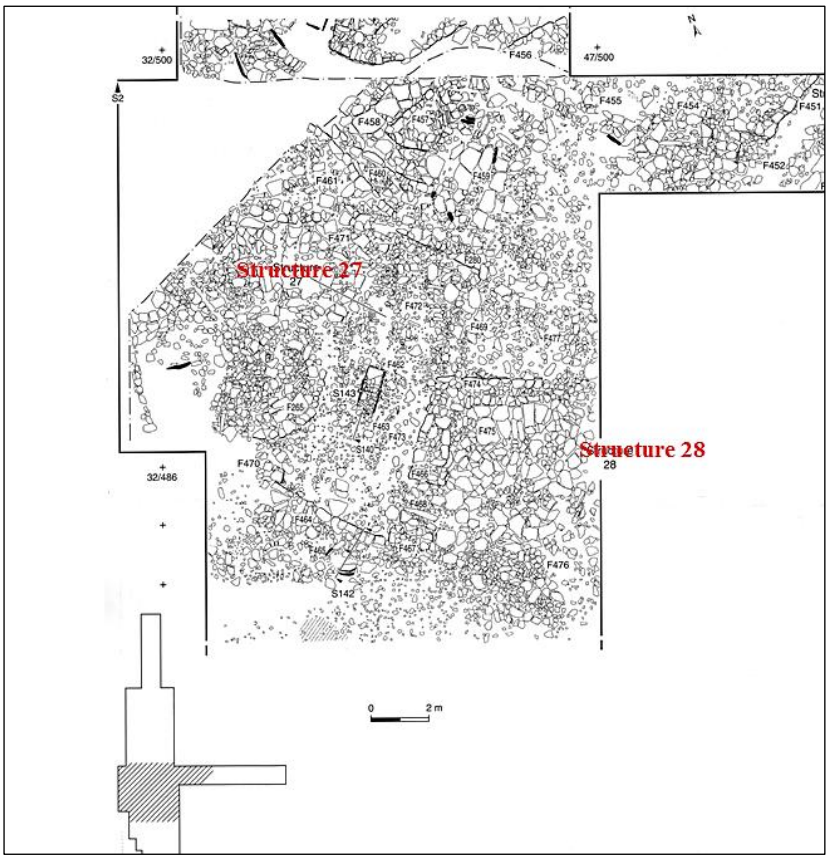

Fig. 7.31: detail of Pool Phase 7.2, after Hunter et al. 134.

[53] Presumably understanding these buildings was made even harder by the requirement, for much of the excavation, to work around the stone-dyke.

[54] Interestingly, as in the longhouse on the East mound on the Bay of Skaill (Sandwick) a rotary quern fragment was found in internal floor deposits.

Building techniques noted here for other Viking-Late Norse sites were recorded. Iron Age buildings provided foundations for Structures 18 and 19 and so 'to some extent acted as conditioning factors to the spread of new buildings' (ibid. 31). Old walls were modified and realigned with new. Structure 27 (c. 9.5m by 3.5m) was described as 'unique' for its 'combination of residual, collapsed and newly-built lengths of stone footings of varying thickness, quality and stature'; its 'amalgams of extant walling' (ibid. 142 and 519). This variegated building style is of course now more familiar, seeming to reach a peak in the Viking-Late Norse period.

The use of midden-type material for various purposes continued; the intensification in infilling/ levelling *up* of building interiors has already been highlighted. Highly organic and artefact-rich material was used as wall-fill; trampled midden-stabilised surfaces defined external areas, with interior floors dominated by peat-ash. But the mound *itself* was also being deliberately formed with the construction of a terraced midden shaped by short lengths of curved walling, each of which 'appeared to shelter or retain an *identifiable deposit* typically packed with midden, pottery fragments and general debris' (ibid. 141; my italics). Hunter suggested these walls may have revetted the slope to create working areas but the quote also implies that different deposits were being stored in separate areas. The description is very reminiscent of the structured midden in Trench 4 at Skaill (Sandwick). Much more effort was therefore expended in this period on monumentalising the mound and show-casing accumulations of midden-type material.

"Norse" Phase 8: (mid-tenth to later-twelfth centuries)

In what Hunter terms the 'firmly earldom' phase on the mound the site is reorganised around a longhouse – Structure 29 – 16m by 4.5m in the north of the area (Hunter et al. 2007, 147; Fig 7.32). Phase 8 encompasses preparation of the site for longhouse construction, the building's use and abandonment. The life of the longhouse was accompanied by more infilling and spreading of midden-type material, and landscaping with midden accumulations to alter the topography of the mound. The structured use of midden was extensive and, more than previously, instrumental in shaping the mound. Digging deep *into* earlier deposits so characteristic of prehistoric building was abandoned, the

emphasis was on building onto and up – on the relationship between the buildings and increasing the mound's profile.

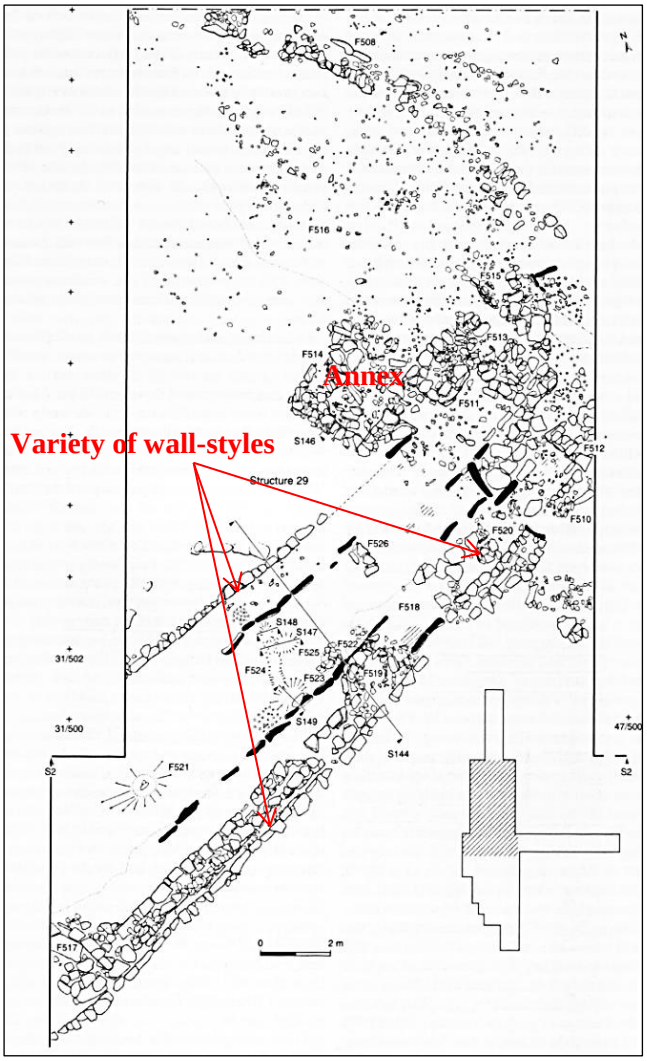

Fig. 7.32: Phase 8.2.2: Structure 29, Hunter 2007 et al., 156.

In Phase 8.1 large areas were infilled and consolidated to create a building-platform near the apex of the mound for the longhouse (ibid. 148-50). Iron Age features were covered but some stretches of "Interface" Structure 25's walling were incorporated into the longhouse. Like the longhouse on the East Mound (Sandwick) the long walls were built in a variety of ways and there was no large formal central hearth.[55] The Pool longhouse was then extended by two metres and a small annex added (Phase 8.2.2; Fig 7.32); finally the building was downgraded from domestic use, a partition wall was erected to create a smaller structure in the south-west, and the main part of the longhouse adapted as a work-

[55] The north-west wall of Structure 29 like the south-east one of the East mound longhouse lacked an outer face. Some of the differences between the long walls at Pool might be linked to later robbing and disturbance but as at Bay of Skaill there was also obvious intent to the lack of symmetry.

area with rough flagging laid over midden and rubble (Phase 8.2.3; Fig 7.33). The longhouse was following a familiar trajectory from dwelling to barn, working and storage place. Throughout this period the midden accumulation continued in a 'complex cycle of deposition, movement and redeposition' (ibid. 472).[56] The bulk of the mound increased, which Hunter described as 'progressively burdened with midden' (ibid. 151), and more midden areas were revetted and structured. Terracing the midden with walls created level areas used for completing various short-term tasks. Finally, by the late-twelfth century the site had been abandoned.

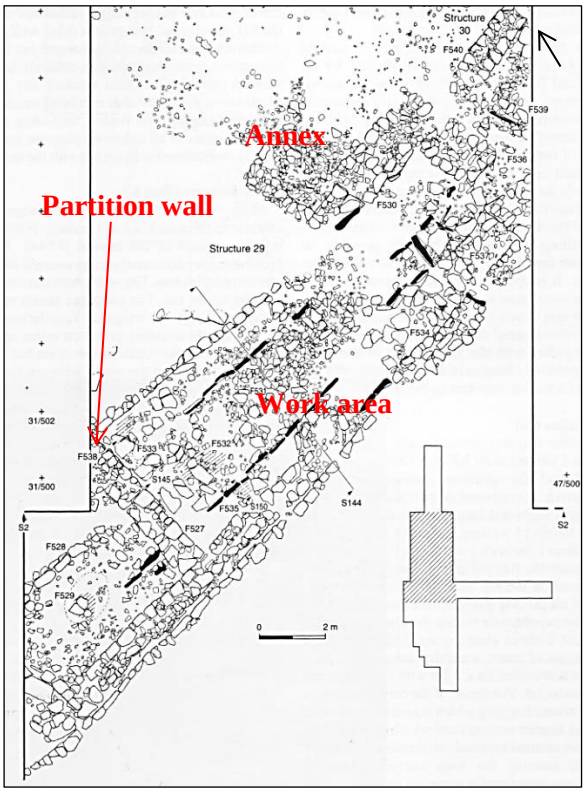

Fig. 7.33: Structure 29, Phase 8.2.3 (detail): from Hunter 2007, 159.

Summary of Mound-related Building Techniques: Table 7.02

Conclusion

Pool probably cannot produce a clear picture of the nature of the earliest Viking-Late Norse settlement. The loss of the focal buildings belonging to the "Transition" period makes it difficult to characterise the "Interface", and there was after all a distinct phase of change, if not abandonment,

[56] Unfortunately the midden area is not illustrated in the excavation report.

before Scandinavian artefacts and – apparent – structures appear. The apparently gradual transition was more a result of the obfuscation created by over-phasing, disturbance and extensive redeposition of artefacts. Structure 25 for example, reused in building the "classic" longhouse, may itself have belonged to the Viking-Late Norse phase.

What role did that longhouse identified at Pool play in local settlement? Hunter envisaged Pool fitting into a wider political and economic framework. Although cereal cultivation generally increased over the Viking-Late Norse period the farm appeared to focus on dairy products (Hunter et al. 2007, 166). It was not Hunter, thought, a high status place: Pool was 'ordinary', 'none of the evidence…points towards the site being especially prosperous' (ibid. 519 and 522). However, the main longhouse may have been lost to erosion, so conclusions should perhaps remain tentative. Asgaut Steinnes had argued there might be a *bu*-site in the Pool area linked into his proposed Huseby system, established by later earls to exploit their estates (Steinnes 1959). There was no evidence to support this but nor does the location obviously fit the *skáli*-area model.

Pool's location on one of the best natural harbours may have been crucial in determining its role. Sanday was one of the most fertile islands in the archipelago in the tenth century and perhaps became increasingly vital for the production and distribution of surplus food products. Some Sanday farms may have been run by men for masters based mostly elsewhere on Mainland, Westray, Rousay, Gairsay or Egilsay, and the Pool site significant because it controlled the harbour and perhaps produced some surplus produce for consumption elsewhere. Sanday also appears to have had slightly fewer skaill-sites suggesting the island operated to an extent outside of the *veizla*-system (Sanday has five, Westray seven and Mainland 15). Skaill-areas were linked specifically to hospitality, tribute collection and the visits of earls: as a slightly more geographically removed, and yet strategically important island, Sanday's settlement pattern may reflect a unique combination of the estates of more independently-minded men (in the north-east and north-west) with those exploited for food-surplus like Pool, and some skaill-areas, such as that around Skaill in the centre.

Area 6: around Westbrough: Fig. 7.34

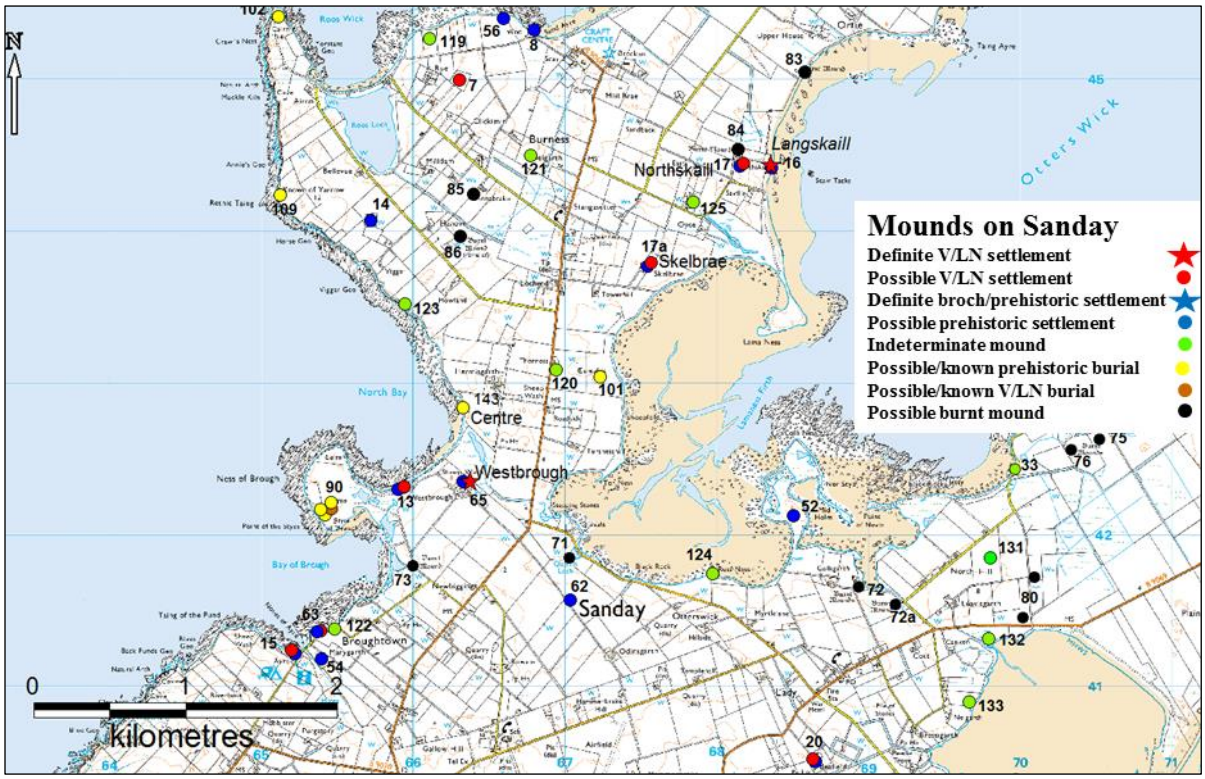

Fig. 7.34: archaeological mounds in the north-west.

This section will deal with the archaeology of the area as an introduction to a discussion of the excavations at Scar and the investigations of the "farm-mounds" at Langskaill, Skelbrae and Westbrough. The area around Westbrough will be dealt with first.

Archaeological mounds around Westbrough

The large mound of Westbrough (no. 65) dominates both the narrow neck of land joining the north-west peninsula to the rest of Sanday and the surrounding area: looking west to the beach of North Bay and the burial cairns on the Ness of Brough; east to the sands of Otterswick. The neck itself is very low and damp, with drifts of sand. The 1882 Ordnance Survey map shows the now almost-drained loch would once have virtually cut the north-west off from the island to the south – rather like in the north-east. Westbrough overlooks the sea ans also mounds in all directions (Fig. 7.35). To the north was a now lost, indeterminate mound near Thorness farm (no.120); a few mostly unrecorded, low grassy mounds are still visible on higher land sloping down to Otterswick. One of them was noted as a

possible burial cairn (no. 101). Excavations in the1990s at site 143 to the north-west, near Hermisgarth, revealed late Iron Age/early Pictish cist-burials and pyre-settings; geophysical survey behind the coastal-section suggested the site was extensive (Downes et. al. 1997). The farm of Hermisgarth sits on spur of higher ground; about 250m north-north-east was a now disappeared possible chambered burial mound.

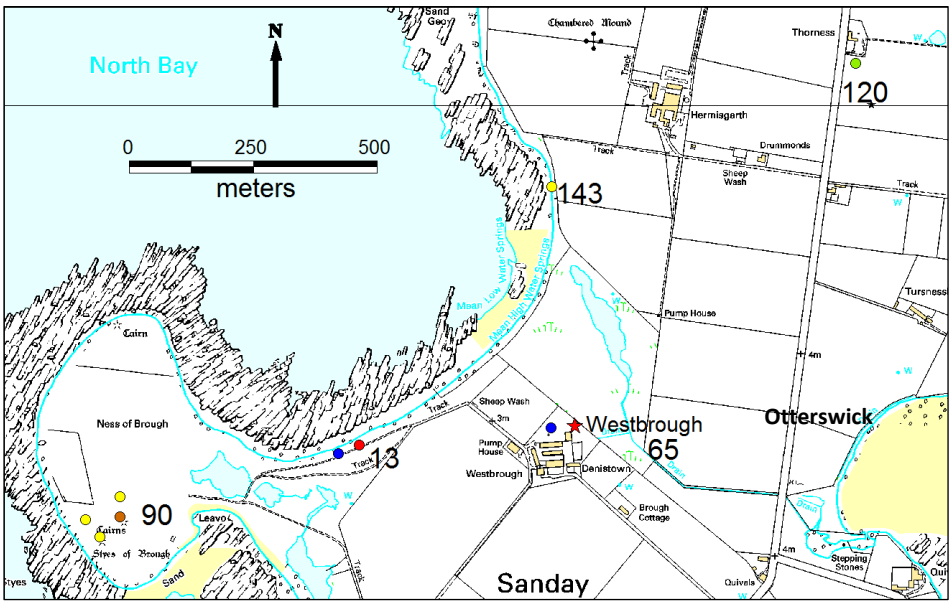

Fig. 7.35: archaeological mounds around Westborough: detail of Fig. 7.34.

To the south-west a burnt mound (no. 71; Fig 7.34) can be seen from Westbrough, and structural stones were recently discovered in an eroding coastal-mound (no. 13). The cairn complex on the Ness of Brough, also visible from Westbrough (Styes of Brough; no.90) was investigated by Time Team in 1998.[57] There are four mounds visible where a Viking sword, axe and "cauldron" may have been found in the late-nineteenth century (Table 7.01). The Time Team excavation discovered the cairns were prehistoric in origin but, as a disturbed boat-shaped stone setting was uncovered along with steatite sherds, at least one mound – very unusually for Orkney – may have been reused as a Viking-Late Norse burial site (Fig. 7.36).

The name West*brough* has prompted suggestions there may have been a broch in this strategic location: the *Original Name-Book*, and early-twentieth-century reports, record archaeological deposits

[57] http://www.orkneyjar.com/archaeology/dhl/dl/timeteam.htm

in the mound – stone and midden-type material – and a Viking axe was probably from nearby. A ruinous old chapel mentioned in a valuation roll of 1776 may have been associated with Westbrough. The mound was also investigated by Donald Davidson's team in the 1980s (see below). A narrow, deep section into the mound revealed well-stratified, midden-type material, overlying nearly a metre of peaty deposits. Radiocarbon dating of this peat suggested the mound's formation began sometime after the seventh century. Westborough may have originated in the Pictish period and been a substantial Viking-Late Norse farm. But the 1980s interventions were so restricted that earlier deposits, and indeed structures of any period, may simply not have been encountered. However, the number of mounds around Westbrough implies the neck of land was regarded in both prehistory and later as a boundary area that required marking and controlling.

Fig. 7.36: Time Team excavating a cairn on Ness of Brough, 1998
©http://www.orkneyjar.com/archaeology/dhl/dl/timeteam.htm.

Just south-west of Westbrough a group of mounds clustered around the Noust of Ayre, where a narrow entry for boats leads to a naust and tiny shingle-sand beach, probably represents another settlement location (Fig. 7.37). Three mounds sit around the geo (nos 15, 54 and 63) with an indeterminate mound to the north-east (no.122).

Mound no. 15, under the modern farm of Ayre, has a long erosion-section with walling, and midden-type material; on the northern arm of the inlet opposite another coastal mound with a similar erosion-section (no.63) is reputed to be a chapel-site perhaps on the basis of the Chapel Head place-name. Just

inland, when the manse was rebuilt, circular walls and midden were reported at Marygarth (no. 54) but nothing more has been discovered of this site.

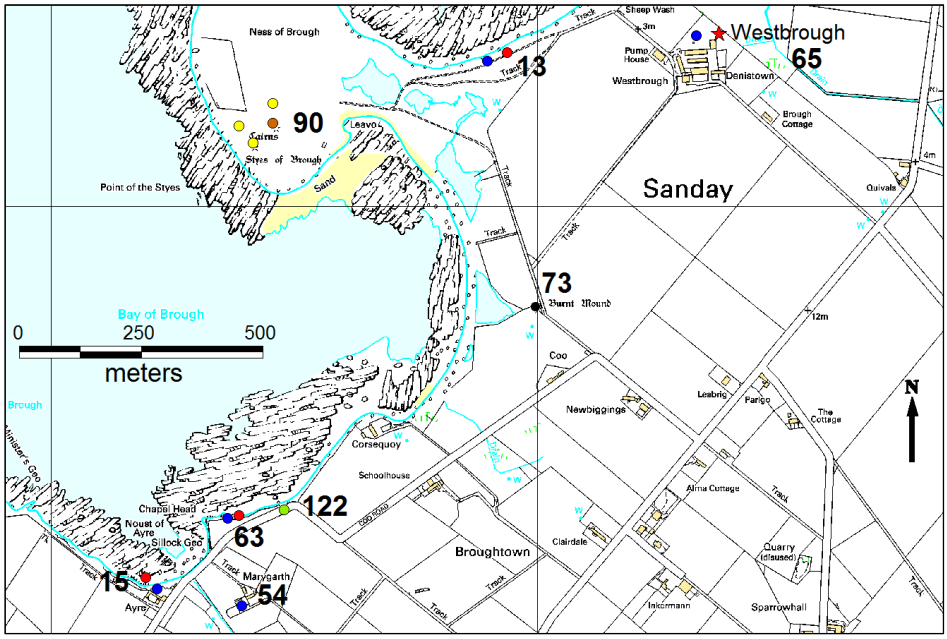

Fig. 7.37: archaeological mounds south of Westborough: detail of Fig. 7.34.

The Farm-mounds Debate: Westborough, Langskaill and Skelbrae

Westbrough, discussed above, was investigated along with two other mounds in the area, and this is an appropriate place to consider how that work influenced research into "farm-mounds". The terms and parameters of this debate have affected discussion and research of all settlement mounds in Orkney. As will be seen, the line of investigation established in the 1980s unintentionally restricted that debate, leaving a critical need for re-analyses of the mounds as a group, and wider research informed by social and cultural approaches.

In 1979 Reidar Bertelsen published a short summary of work on 'a special North Norwegian type of settlement deposit accumulation' (1979, 48), described as one of the most common types of archaeological monument there. These large hillocks, termed farm-mounds, usually in an area of arable land near the shore, contained anthropogenic deposits up to seven metres deep, were typically topped by a working farm and were believed to date mainly to the medieval and post-medieval

periods. People living on them were 'aware they had deposits from several generations under their feet' (ibid. 48). Deeply stratified settlement remains within huge mounds had been reported from the late-nineteenth century, but were not considered as a group until 1954. Then they were characterised as much more than huge middens, rather old farm yards 'with long traditions' comprising layer upon layer of turf building remains, dung and domestic and agricultural refuse (Bertelsen 1979, 48). Farm-mound deposits were first analysed archaeologically during a small excavation of a mound at Senja on the north-western coast of Norway in the 1960s (Stamsø Munch 1966).[58] In 1979 Bertelsen reviewed research undertaken since that excavation and sought to stimulate wider investigation. In the background the main questions pertinent to settlement mound research were crystallising: why did people decide to rebuild farms on the same spot, and allow "neglected" organic deposits to accumulate around the farm? When had that process begun? How exactly had mounds formed and deposits accumulated? And what was their composition?

In Northern Norway archaeologists at that time were struggling simply to identify and catalogue hundreds of farm-mounds. Bertelsen assayed field survey to record all mounds, stressing this was an initial attempt. Dating was even more problematic: stray finds associated were the only means of establishing a chronology for mounds, but even recorded finds had not been studied systematically. However, most mounds were suggested as forming in the period AD1000-1800. Four very small excavations of tiny proportions of mounds had recovered radiocarbon dates from 'bottom strata' (Bertelsen 1979, 50), ranging from the late-tenth to late-thirteenth centuries. Bertelsen added five further dates from test-pits, and although three were from the late-tenth to late-twelfth centuries, two Iron Age dates hinted that the phenomenon might have earlier roots. Most significantly for the future Bertelsen emphasised at this point farm-mounds were *not* unstructured deposit accumulations and highlighted the huge variation in sequences and types of strata between the small excavations.

[58] Stamsø Munch argued the mounds accumulated with the shift from cereal growing, stock raising and fishing for subsistence to an economy led by fishing and producing stock fish for trade. Organic deposits such as kitchen midden and animal dung were no longer needed as field fertiliser and were allowed to build up around the farm buildings.

Farm-mounds in Orkney

The farm-mound debate extended to Orkney in the 1980s when County Archaeologist Raymond Lamb began to publish his archaeological surveys of the islands. Introducing the survey of Sanday and North Ronaldsay, he wrote: 'The most striking peculiarity of the two islands is the prominent mounds on the summits of which many of the largest and oldest-established farms are built', and suggested such mounds were common 'only' in those islands in Orkney 'due to the blowing sand' (Lamb 1980, 7). The mounds were well known locally for hiding ancient structures. Lamb explained how mounds formed when obsolete stone buildings were dismantled only to the level of accumulated sand before new structures were added at a higher level. 'They are indeed veritable tells… built up over several millennia of occupation' (ibid. 7).[59]

Farm-names linked to these mounds such as *skáli* and *bær* indicated to Lamb these were "primary" Norse settlements,[60] and names with *haugr* ('mound') and *brekka* ('slope') suggested, more plausibly, that those mounds that were not natural hillocks had originated as settlement sites before the Viking-Late Norse period. Lamb observed erosion-sections cut by the sea through mounds, for example, at Langskaill (Sanday).[61] But there, as elsewhere, there had not yet been any excavation, so composition and dating were hypothesised. Furthermore, Lamb's definition of the "strikingly peculiar" mounds was far from precise: he claimed most identified were still occupied by farms, or the nucleus of the current farm had shifted only slightly, while only 'a few', formed of prehistoric and 'early Norse' settlements, were 'long abandoned' (1980, 8 and16-20). In fact, almost as many sites in the last category were listed as "tells" in the 1980 survey as were mounds with a working farm on top.

[59] Lamb listed 16 farm mounds in his survey (Lamb 1980). Pool was subjected to large-scale excavation (Hunter 2007); Westbrough, Skelbrae and Langskaill were investigated further by Davidson et al. with test pits (see below). Of the remainder Ayre, *Northskaill*, Ivar's Knowe, Sandquoy and How are eroding but have not been investigated or produced definitive evidence of their nature or date; and Beafield, Tofts, Oyce, Lopness, Cleat, Seater and the eastern How are tells under modern farms, several with erosion-sections.

[60] It no longer seems credible to try and date settlements, other than broadly, or put them in a chronological sequence on the basis of place-names (see Chapter Eight).

[61] It is worth highlighting at this point how such erosion-sections might mislead. Not only are they random slices across the mounds but also any heavier stone structural elements tend to collapse more rapidly out of the section: it could be argued the structural component of many sea-eroded mounds is routinely underestimated.

Pedological research in the 1980s

Many ideas first mooted by Lamb in his 1980 survey were invigorated by the first substantial research on the Sanday mounds, shaped by that work's complex pedological and scientific emphasis (Davidson et al. 1983 and 1986).[62] Lamb's account of a class of mounds, typically with modern farms on top, existing only on Sanday and North Ronaldsay, influenced the initial direction of Donald Davidson's research. Summarising his first project Davidson referred to the recently surveyed 'man-made landforms' as a 'distinct archaeological class', but also for the first time specifically described them as "farm-mounds," most analogous to the mounds of Northern Norway (Davidson 1981, 29 and 31). 16 mounds were included on Davidson's map of Sanday farm-mounds.[63] The mounds were defined as 'large' with deposits up to five metres deep; 'several' had active farms on their summits, others had farms 'adjacent' (ibid, 29). The aims of the project were geomorphological and pedological: to investigate the chemical and physical properties of soils and identify the human processes involved in their formation, 'to fingerprint the types of inputs to the mounds' (Davidson et al. 1983, 44). It was also hoped to discover their age. Three of the 16 mounds were chosen for more detailed investigation: Westbrough, Skelbrae and Langskaill. Deep, narrow sections in small test-pits and, on Westbrough, during the construction of a new cattle court, or from sections created by sea-erosion were used to gather information on mound deposits.

From the outset the researchers recognised that the small test-pit size investigations were not sufficient to understand the formation processes of an entire mound and ultimately not a great deal emerged from the project. However, it has had an impact on later research beyond its limited scope: one of the unintended effects was to constrain the terms of the debate surrounding settlement mounds in Orkney. The first article on the project asserted that, although the mounds had been initially characterised as composed largely of stone building debris and accumulated sand-blow, in fact they were essentially

[62] John Hunter and Stephen Dockrill surveyed three suspected Norse sites briefly including Pool as well as Lamba Ness, and the Ness of Brough (1982). This launched the Pool investigations while the Ness of Brough sites were later investigated by Time Team.

[63] By comparing the un-named sites on the map with the author's map these seem to be: Pool, two How sites, Ayre, Beafield, Westbrough, Skelbrae, Northskaill and Langskaill, Oyce, Seater, Ivar's Knowe, Lopness, Sandquoy, Cleat and Tafts/Tofts. Pool was later dropped.

heaps of 'soil and organic materials', like the Norwegian *gårdshauger* (Davidson 1981, 30). A more detailed report in 1986 noted how the 15 mounds in the "class" varied in morphology reflecting 'complex processes of accumulation' (Davidson et al. 1986, 46). Pool had now been excluded from this group: Hunter explained the site was dropped from the original list because the erosion-section revealed stone structures, unlike the other (apparently) predominantly organic mounds (Hunter 2007, 11).[64] How the soil researchers were so certain about lack of structure in the remaining, essentially unexcavated mounds was not revealed.

The formation processes in the mounds they argued were not simple, but gradual and *un*planned (Davidson 1981, 31), involving organic domestic and byre-waste, peat-ash and old roof-turves (presumably from buildings somewhere nearby).[65] This argument was refined by 1986 when it was proposed that the varied stratigraphic units, as in the *gårdshauger*, could *not* be interpreted as '*unstructured* accumulations of refuse' (Davidson et al. 1986, 47). It was further suggested the inherent fertility of the island meant farmers did not need the midden-type material to fertilise fields (ibid. 45). These two arguments are mutually incompatible: why were farmers keeping material of no utility or significance in "structured" heaps?

The research ultimately categorised the three mounds as members of a class of structure-free, carefully built-up but useless accumulations of midden-type material (Norwegian mounds of course did contain structural remains, but of turf rather than stone).[66] Yet fundamental archaeological problems had not been sufficiently highlighted: for example, when considering the processes establishing each stratigraphic sequence only small sections of the mounds' bulk were being observed, and at

[64] The exclusion of Pool happened after the brief report in the 1981 University Strathclyde newsletter and before both the 1983 report in the *Norwegian Archaeological Review* 16(1) and that of 1986 in *Geoarchaeology* 1(1). Pool was also in the south-west where it was argued there were no farm-mounds.

[65] Interestingly Davidson recalled an old Orcadian practice of creating compost heaps with alternate layers of cut turves seaweed and dung assembled in a deliberate process (1981 31), in contrast to their interpretation of the formation of mounds.

[66] Although settlement mounds are now known to exist all over Orkney and many are known to contain stone structures, comparisons continue to be made (cf. Davidson et al. 1986, 46) to Middle Eastern tells and the Terpen and shell middens of Denmark, where stone is not used for building. The material in these mounds does still embrace structural remains but they are organic rather than stone. The Orkney mounds are distinguished from all these and many of the Norwegian mounds by their almost exclusive use of stone as the main building material.

Westbrough the section was on the edge of the mound where significant structures were less likely to be encountered. Dating was also extremely problematic: the samples (only 12 for the three sites: one at Skelbrae, nine at Langskaill and two at Westbrough) taken from the tiny excavations would only date one sequence in one part of each complex mound.

The mound investigations

Westbrough is a prominent mound dominating a narrow neck of land, with a farm on its southern slopes. A 2.8m deep section was created during excavation for a cattle court; 0.48m deeper was investigated by auger. A metre below the modern layers, well-stratified, midden-type material was revealed with high phosphate values, with over a metre of peat-deposits underneath. On the basis of this and two further auger cores, separated by nearly 90m (Fig. 7.38), it was suggested peat must underlie most of the mound. This peat was not an *in situ* natural deposit but included midden-type material and had been 'used for cattle bedding purposes before it was piled up as a *useless* heap at the side of the original farm' (Davidson et al. 1986, 48; my italics). This begs the question of where the "original farm" was located, while tacitly acknowledging the necessary involvement of buildings. Perhaps these peripheral deposits were actually part of middens surrounding a settlement encased within the mound? [67] The two radiocarbon dates from the peat suggested it began to be deposited after the seventh century.

[67] They were also compared to deep top-soils slowly formed and gradually thickened by the addition of bedding turves collected from byres, as was later confirmed, mostly during the later medieval period in Orkney.

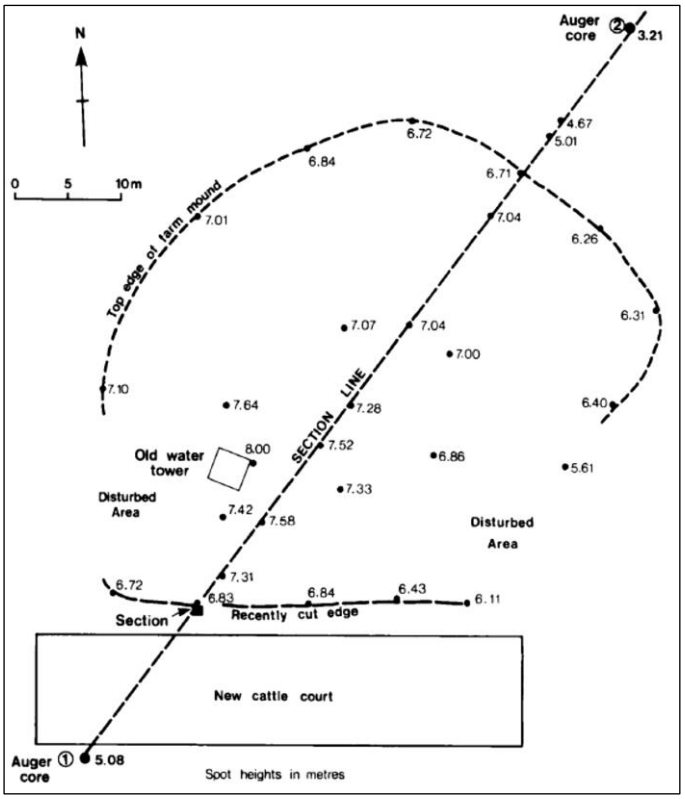

Fig. 7.38: Westbrough from Davidson et al. 1986, 48.

Langskaill was investigated through a long erosion-section (Fig. 7.39); half the site was already lost to sea-erosion. An intricate stratigraphic sequence 4.3m deep had been revealed, notable for high shell content. This time it was acknowledged the described section 'should not be taken as [a] representative' (ibid. 53). A flagstone floor was recorded to the north-east. The phosphate values were more variable but all indicated anthropogenic input. The dating was very problematic. Dates on shell, corrected for the marine reservoir effect, were taken to be the most accurate (ibid. 55); we are not told how samples were taken despite the problems of contamination posed by erosion-sections. Broadly the shell radiocarbon dates ranged from the mid-thirteenth to early-fifteenth centuries; dates taken on 'soil' and charcoal were however eighth to mid/later-twelfth centuries for middle deposits and later-eleventh to later-thirteenth for upper deposits (ibid. 52). Despite the range of dates, it was suggested Langskaill began to be constructed much later than Westbrough in the mid-thirteenth century.

Fig. 7.39: the Langskaill erosion-section looking north-west.

Skelbrae like Westbrough had a farm on the flanks of the mound, but also foundations of older buildings on the summit (not described or dated). The deposits, just over a metre deep, investigated in a test-pit on the summit, were dominated by peat-ash: little is said about these more homogenous contexts. One radiocarbon date from a deeper auger core gave a range in the later-seventh to eighth centuries. [68]

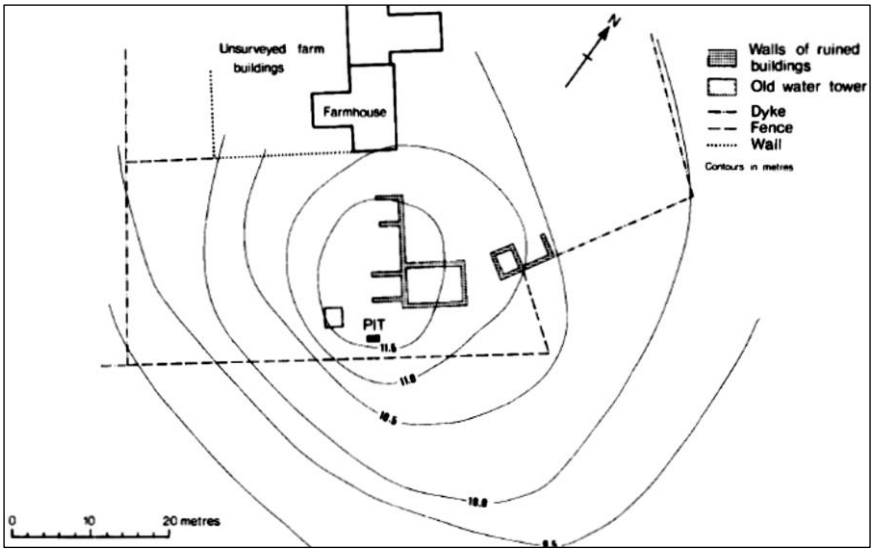

Fig. 7.40: from Davidson et al. 1986, 56: contour plan of Skelbrae mound with test-pit marked.

None of the mounds were conclusively demonstrated to have accumulated substantially in the Viking-Late Norse period. Their formation was summarised as a 'distinct research problem' (ibid. 57). 'In

[68] Skelbrae is an interesting name: from ON *skáli* and Scots *brae* ('slope').

essence the mounds grew as middens with major inputs derived from the byres' (ibid. 58); peat used for bedding was discarded '*on the site*' (ibid. 57; my italics – this begs the question on the site of what). Farmers, it was concluded, were not motivated to improve the fertility of light, well-drained sandy soils. No other explanation for the mounds' accumulation was offered. The limited nature of the study was acknowledged, with no discussion of the broader social or landscape context of the mounds. More intensive investigation, they suggested, was needed, similar to that in progress at Pool (ibid. 59).

Perhaps the most important conclusion was the highlighting of the mound-deposits' 'striking variability' (Davidson et al. 1983, 42) and of the 'long evolution of the farm-mounds with the foci of accumulation moving about over them' (ibid. 43).But this characteristic surely underlined the difficulty of drawing broad conclusions about a poorly defined "class" of monuments on the basis of tiny interventions into three examples. Mounds of such size, argued to be created '*largely* through accumulations of sediments' (1986, 46; my italics), supposed a huge amount of those components, and must have resulted from considerable settlement activity over a lengthy period. All the deposits were produced by animals and people living nearby. Such enormous midden-mounds cannot have developed at any distance from the farm.

St Boniface (Papa Westray) and the farm-mound debate

Raymond Lamb revisited the debate in the 1983 RCAHMS survey of Papa Westray. Lamb explained that in the 1980 Sanday survey he had interpreted the notable mounds there as 'oriental tells' comprising superimposed building remains, but subsequent investigations – Davidson's discussed above – had demonstrated 'their composition characteristically is a fairly uniform organic deposit' (Lamb 1983, 2).[69] Lamb listed several similar "farm-mounds" on Papa Westray, although smaller and less likely to have modern farms on the top.

Christopher Lowe picked up the discussion in his St Boniface (Papa Westray) monograph. He reviewed the two proposed models of formation: mounds were either accumulations of deposits

[69] Lamb acknowledged there were still at this time problems with dating the beginnings of the mounds (1983, 2).

usually dispersed elsewhere; or were formed by the repeated decay and rebuilding of turf-houses, combined with midden-type material (1998, 9 and 197-99). The third model preferred here would combine stone – and turf – architecture and midden-type material. The first model was that initially promulgated in Northern Norway, explained by medieval farmers turning from cultivation to stockfish production for their livelihood. The second model developed as the numerous key-hole investigations of Norwegian farm-mounds demonstrated they were artefacts of their architecture and the use of 'organic building material' (Lowe 1998, 10). Lowe noted that Lamb had originally seen the Sanday mounds as the stone architecture equivalent of the Bertelsen model before Lamb changed his mind, regarding them by 1983 as *in-situ* accumulations of disregarded midden and peat-ash. Writing about St Boniface Lowe therefore presented the "farm-mounds" of Papa Westray as of that class of ash-dominated mounds, and interpreted the ash-midden area only of the huge St Boniface settlement mound as a "farm-mound".

The St Boniface project demonstrated the awkwardness of the midden-deposit-only mound formation model and highlighted the underlying tension in attempting to classify settlement-related mounds in Orkney by comparing them with Norwegian versions. Repeated rebuilding of houses built of organic material inevitably produced organic mounds: the same process of rebuilding *stone* structures in one place produced a mound with sequences of clearly visible building remains.

Acta Archaeologica 1993

In 1989 Bertelsen and Lamb delivered a paper to the eleventh Viking Congress[70] entitled "Settlement Mounds in the North Atlantic" (1993). The debate was reformulated as the authors brought together research in Norway and Orkney, with brief reference to Iceland and Greenland (ibid. 549). Coastal mounds across the North Atlantic were grouped more satisfactorily under the broad umbrella of "settlement mounds", and the perspective widened to take in social and cultural as well as economic and morphological processes.[71] By this time the estimated number of *gårdshauger* in northern Norway

[70] Originating in a discussion with Donald Davidson in 1987 (Bertelsen and Lamb 1993, 553).
[71] See also Urbańczyk 1992, 110-11 for a summary of the various papers.

stood at c. 2000 of which not one had been subjected to a large-scale excavation (ibid. 544). But theories about those mounds had evolved: they were agreed to be constituted of the ruins of wooden and turf (that is organic) farm buildings, middens, and byre waste; the vast majority were coastal and dispersed; in many cases the modern farm stood on the summit and, although some originated in the Iron Age, most began in the later first or early second millennium. The Sanday and North Ronaldsay mounds were now also firmly designated 'settlement-mounds' (sic; ibid. pp. 547-8), although still defined as 'being crowned by still-active farms'.[72] Bertelsen and Lamb reiterated some of the 1986 observations (Davidson et al. 1986): that place-names suggested the mounds 'as a class' existed when the Norse first settled; that the major inputs were turf, peat-ash and byre-waste (the fact that Orcadian structures would be built of stone was left unconsidered); and that farmers' disregard for potential fertiliser was explained by the 'inherent fertility' of the sandy soils (ibid. 548). Debate was still also limited by the conviction that Orcadian farm-mounds occurred only on Sanday, North Ronaldsay and Papa Westray.

One very fundamental observation was made: farm-mounds reflected 'cultural behaviour' as the 'choice between settling on top of your ancestors' yard,' or settling *beside* it, was an important 'cultural statement' (ibid. 547). Were farm-mounds/settlement-mounds (used inter-changeably in the piece) around the North Atlantic therefore all products of similar cultural 'patterns'? The mounds were seen as developing in the context of particular agricultural social structures – and especially – the need to legitimise land-use. Perhaps a farm-mound as a 'manifestation of ancestors' was sufficient proof of continuing land rights. However, repeated re-use of locations might also reflect the limited number of 'optimal sites' for coastal farm settlement (ibid. 551). The hypothesis was that all "settlement-mounds" represented farms. Although the short paper posed many questions, it was especially significant in emphasising that settlement mounds had cultural meanings.

[72] This is surely not a factor that should define a settlement mound but is more to do with the fact that farms in Sanday and North Ronaldsay have far less choice of location than elsewhere and could not so easily move off the sand.

Conclusion

The paper did not stimulate a continuing debate on Orkney settlement mounds. In 1997 John Hunter would summarise farm-mounds in the North Atlantic as initially having been explained by changes in land-use and soil management, but latterly being recognised as a range of types and dates. Research had not really advanced since the 1980s (Hunter in Edwards and Ralston, 254). A year later, in the final report on the Scar (Sanday) boat-grave, Olwyn Owen briefly reviewed the state of farm-mound research. The mounds, she wrote, were 50-250m in diameter, and significantly comprised deposits up to four metres thick of 'continuous *occupation*' (Owen 1999, 11; my italics). It seems the contention that such mounds were piles of organic refuse had lost currency. Owen emphasised the mounds' long evolution, variability, and shifting foci of accumulation and referenced place-names to propose the mounds included 'primary' "Norse" settlement thus linking her analysis straight back to Lamb's original 1980 identification (ibid.12). Adding brief mentions of St Boniface (Lowe 1998) and Bertelsen's Norwegian research Owen concluded: 'Evidently, then there is no one explanation for the development of farm mounds' (ibid.13). This had become the orthodoxy without any further detailed or summative research into the farm-mound/settlement mound phenomenon.

Thus, when Hunter published Pool (Sanday) in 2007, research into Orkney "farm-mounds" had remained in the doldrums. Noting Pool's exclusion from the farm-mound list Hunter remarked: 'It now seems likely that the farm mound definition embraces a number of broad types including those which, in common with Pool, have a structural component' (2007, 11). He continued more significantly to characterise such mounds from the perspective of the Pool site: they 'appear to attest… to settlement continuity and multi-period occupation' (ibid. 11). This idea has not been developed further in research until the current work. Indeed, writing about Icelandic farm-mounds Orri Vésteinsson was even uncertain similar monuments were found in the Northern Isles (2010 13): the 1993 Reidar Bertelsen and Raymond Lamb article was the most recent Orkney-related reference cited in his article. This research is demonstrating that settlement mounds – comprising structures and midden – are widespread, multi-period and variable and do indeed attest to settlement continuity, but

also other shared characteristics including the deliberate and thoughtful use of midden-type material in mound and building architecture.

Area 6: the north-west peninsula: Fig. 7.38

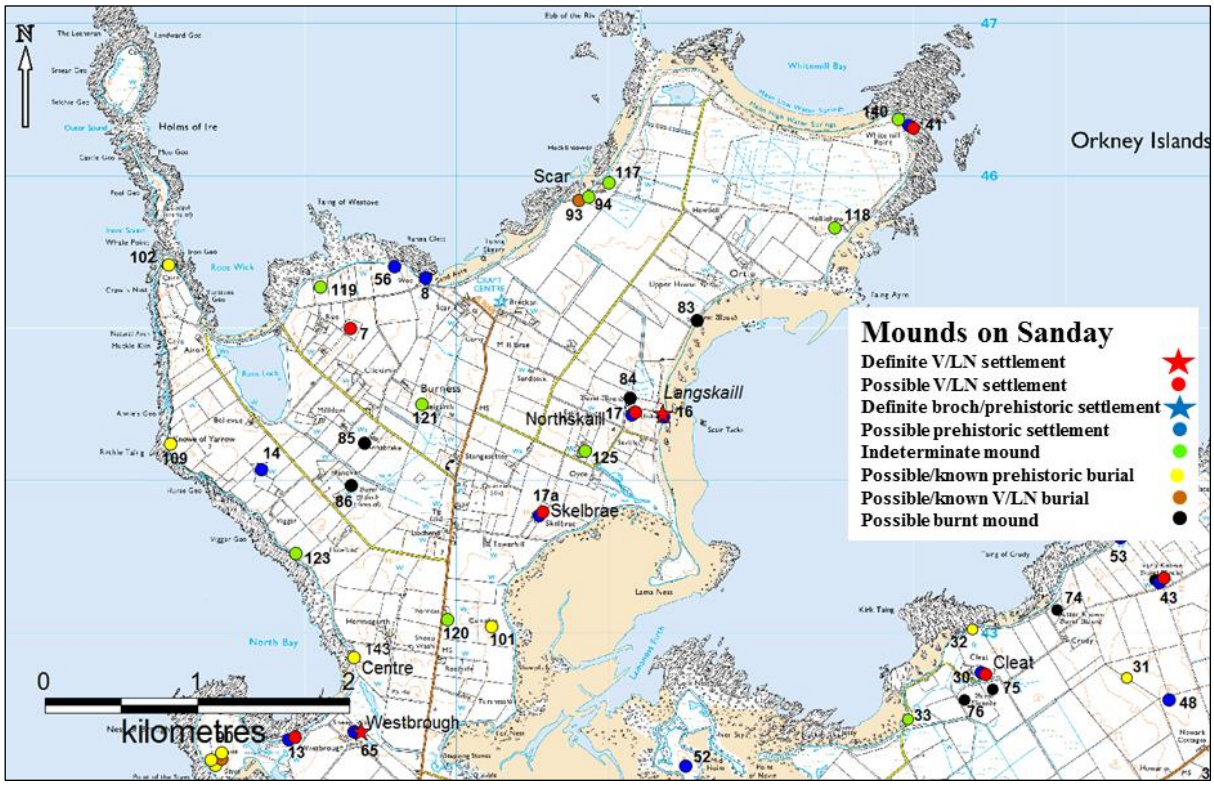

Fig. 7.41: archaeological mounds in the north-west.

The whole area north-east of Scar farm is blanketed in machair and stabilised windblown sand dunes and sand affects the entire peninsula. The east coast is formed by the sands of Otterswick Bay and while the western side up to the Holms of Ire is rocky, the low north-west coast has open sandy beaches and the north is shaped by the wide sweep of Whitemill Bay. The slopes from Hermisgarth (near no. 143) north to the Holms of Ire have a few mound-sites: Prattsfauld (no .14) is possibly a settlement site, but the vertical slabs and disturbed ground are impossible to categorise; the other locations are either burnt mounds in the damp ground south-east of Roos Loch (nos 85-86), or burial cairns (nos 102 and 109). There are three areas which might have been Viking-Late Norse settlement foci. There is a possible cluster of settlement on the peninsula between Ayre Sand and Roos Loch,

close to the later mansion of Scar [73] and the parish church of St Columba of which the burial ground survives (chapel no.28; Fig. 7.42). Mound no.56, with a coastal erosion-section has been tenuously identified as a broch but, like large mound no.8, could be a settlement mound. Mound no. 56 is also linked to a Clett-name ON *klettr* ('rocky hillock'): Runna Clett (see pp. 375-8). On the higher ground behind are two poorly understood possible settlement mounds at Rue (no. 7) and the Braes of Gorn (no. 121). On the eastern arm of Whitemill Bay is a large and prominent mound (no. 41) with structural and midden-type material visible in the coastal-section; this might link with a spread but un-eroded mound just to the north-west associated with two boat nausts (no. 140).

Fig. 7.42: Scar farm, looking north-west.

The area with the greatest potential for significant Viking-Late Norse settlement is on the east coast, where a cluster of substantial settlement mounds (nos 16, 17 and 17a) look across Otterswick Bay to Cleat on the north-east peninsula. The coastal-mound below the now vanished farm at Langskaill (no. 16) is huge and eroding rapidly (Fig.7.39). Few structural remains have been recorded during recent visits, but prehistoric pottery sherds have been recovered, and in 2008 a thirteenth-century composite comb was found one-third of the way up the section (Table 7.01). The mound might be multi-period. As discussed above Langskaill was investigated in the 1980s. The radiocarbon dates on charcoal from middle and upper deposits suggested the mound partly formed over the Viking-Late Norse period; the pottery and shell- and ash-rich lower deposits imply a prehistoric component. Although the dating remains uncertain it is possible this mound settlement constituted one element of a skaill-area.

[73] Scar Mills, eighteenth-nineteenth century: the watermill, part of the steading, is a rectangular rubble-built building with revolving kiln vent; nearby is the stump of a windmill.

150m to the west the modern farm of Northskaill tops a notable mound (no. 17): one of Lamb's original "tells" (Fig.7.43). This mound has not been investigated but its name and proximity to the Langskaill mound are interesting, and Skelbrae (no 17a), less than a kilometre south-west and inter-visible, links another skaill-name to a large mound. There a 1980s test-pit recorded a Pictish date for lower deposits in the mound and there are unrecorded structural remains on the top of the mound (Table 7.01). Both Northskaill and Skelbrae are less than 200m from the shore. These skaill-names and mounds together record a significant skaill-area, possibly associated with those interred in the Scar boat-burial (see below).

Fig. 7.43: Northskaill farm mound: left from the south, right from the north.

The Scar boat-burial

In 1991 the identification of a Norse lead bullion weight, found some years before with human skeletal remains below a fast-eroding coastal cliff on Sanday, initiated the rescue excavation of the island's most evocative Viking-Late Norse site. The site was dropping out of the low north-facing section of a sand-mound one kilometre north-east of the farm of Scar (Fig.7.44). Excavation discovered the surviving half of a boat-burial sheltering the skeletons of three people: a man in his thirties, a child of about ten and an elderly woman in her seventies. Despite work taking place in poor weather, the boat, its occupants and their grave-goods were excavated to high standards with the usual range of modern post-excavation analyses following, including radiocarbon dating of the human bones.[74] Scar was until

[74] This summary has been put together using Owen and Dalland 1999, Owen 2004, OSMR 00259 and Canmore 3494.

very recently the only Orkney boat-burial recorded and published in recent times.[75] The burial was clearly special: some of the grave-goods were exceptional, in particular the whalebone linen smoothing plaque and equal-armed brooch of a type rarely found in Scotland (Owen 2004, 12-13).[76] Despite all this, Scar sheds less light on the Viking-Late Norse period in Sanday than might be hoped: partly because the burial has as yet no immediate settlement context and partly because dating continues 'fraught with difficulties' (Owen 2004, 16).

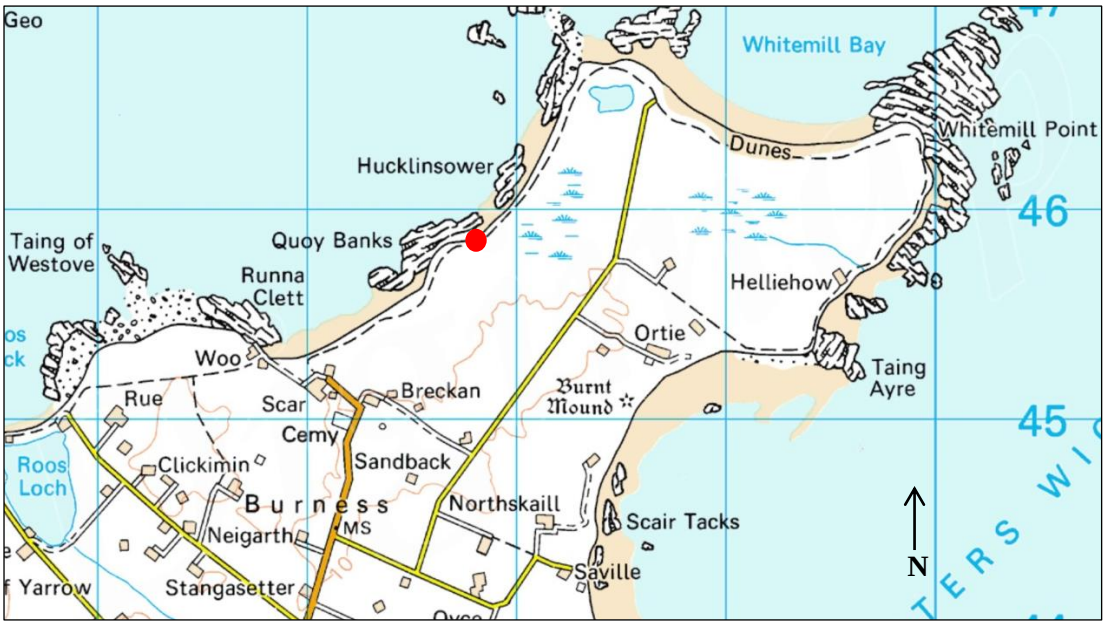

Fig 7.44: location of the boat-burial.

The boat was about seven metres long, within which was constructed a 'makeshift' flagstone grave chamber (Owen 2004, 9). Both the interior and the skeletons had been disturbed by erosion and otter activity. Any grave-goods that might have accompanied the child, laid out north of the woman, were lost, but the rich array of objects arranged on and around the woman and the man indicated these were people of wealth and position (fig 7.45). Their surviving kin had created a public spectacle by staging an exceptional burial.

[75] The discovery in 2015 of a boat burial on Papa Westray has just changed that record: this has not yet been fully published http://www.orkneyjar.com/archaeology/2015/08/27/another-papay-burial-hints-at-possible-viking-cemetery/

[76] These Troms-type brooches were being manufactured in Birka in the ninth century; most of the brooches have been found on the coast of northern Norway (Owen 2004, 12). The plaque may have originated from the Troms area of northern Norway.

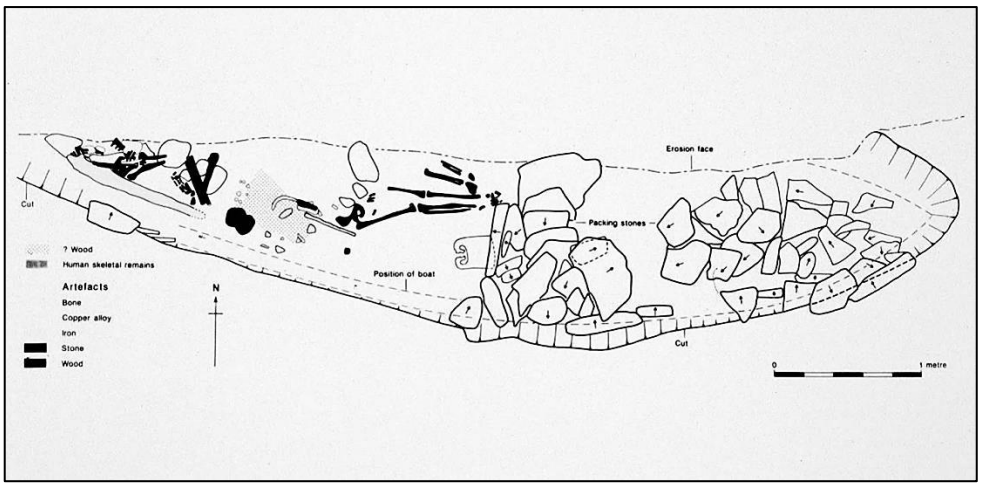

Fig. 7.45: plan of the burials and stone infill of the boat outline: Owen 2004, 8.

The man lay with warrior gear including a sword and a collection of gaming pieces; the elderly woman was accompanied by the plaque, equal-armed brooch and a range of symbolically-charged textile-related equipment. Olwyn Owen suggested the burial's pagan and Scandinavian character might reflect the particular wishes and background of the woman: influential, long-lived and perhaps out-of-step with a culture increasingly responsive to Christian burial customs (2004, 11). The grave-goods were dominated by artefacts of Scandinavian manufacture and of broadly late-eighth- to mid-ninth-century date. The lady might have lived many years in Orkney but her burial and possessions according to Owen evoked ritual and religion of the homelands.[77]

Attempts to understand the cultural and settlement context of the burial are undermined by uncertainty surrounding its dating. The three skeletons returned radiocarbon dates with quite different ranges: a 'surprisingly large variation (Owen and Dalland 1999, 162).[78] The dates were combined to produce a date range AD895-1030 (1999, 162); in a paper from 2000 the range is quoted as AD774-1209 (Barrett et al. 2000b, 6). The brooch and plaque were dated on stylistic grounds to the later-eighth to mid-ninth centuries but also interpreted as curated heirlooms; the combs were both ninth-century. Despite these ninth-century artefacts there was only a 3% probability that the (female) burial was earlier than AD900. The report's authors concluded the date might lie in a potential overlap between

[77] More provocatively the boat-burial may have been a late pagan ceremony staged in defiance of a growing acceptance of Christianity in the tenth century (Owen 2004 13; Lamb 1993, 269).
[78] The calibrated dates on bone from the three individuals were: AD630-1080 (AA-12597); AD820-1220 (AA-12596) and AD905-1335 (AA-12595) (Ashmore 2003, 48-49; Owen and Dalland 1999, 162-4): corrected to AD693-1016; AD889-1157 and AD978-1260 in Barrett et al. 2000, 6.

the scientific and artefactual dates of AD875-950, relying on the objects having been treasured for at least a generation. But in her 2004 article Owen acknowledged: 'At Scar the scientific and artefactual dating do not agree' (p.16). It should be added that both the lack of any control provided by a framework of other stratigraphically secure radiocarbon dates, and the recorded disturbance, mean it is not impossible that the dates were affected by contamination. Patrick Ashmore in 2003 revisited the possibility that the significant difference between the earliest and latest dates for the three burials meant dating was suspect (Owen and Dalland 1999,162-4), but concluded the three dates 'do form a coherent statistical group' (2003, 37-8). Ashmore combined the dates and proposed the burials were most likely to fall in a range from the tenth to early-eleventh centuries (2003, 49). The uncertainty continues.

Can anything be inferred from the burials about Viking-Late Norse settlement in north-west Sanday? Surveys were carried out in the immediate vicinity of the boat-burial (*DES* 1992, 81-2; 1993, 105; Owen and Dalland 1999, 17-21). Topographical survey suggested possible longhouse remains 80m south-west of the boat burial; magnetometry also picked up possible settlement and midden 200m to the south-west, but no anomalies over the longhouse-like feature. It is of course possible that sand – as at the East mound (Sandwick) – obscured any buried settlement, but the surface earthworks must then be unrelated to those buried features. It was impossible to determine without excavation whether there was any other archaeology connected to the boat-burial. Other settlement evidence may yet lie undetected in the immediate vicinity and, as discussed above, archaeology and place-names suggest a skaill-area 1.5 kilometres south-east, and possible Viking-Late Norse settlement at Whitemill Point. Thomson proposed an 'important cohesive estate' centred on Scar mansion with adjacent St Columba's church as the original estate church (Thomson 1999, 9).[79] However, there is no archaeological evidence that the farmstead, although undoubtedly a later principal farm, had roots earlier than seventeenth-century – it may well be the post-twelfth-century focus – with the wider settlement context for Scar remaining to be established. Somewhere in the area, perhaps at

[79] The graveyard only survives (OSMR 00388). The farm complex at Scar mansion was established by the seventeenth century but the remaining buildings are essentially nineteenth-century (Canmore 3487).

Northskaill/Langskaill, was a settlement of sufficient distinction to house the people memorialised in the boat-burial. Those people may have dominated the whole north-west peninsula. The burial itself, whatever its precise date, was certainly resonant of the chieftain culture that sustained skaill-sites, and perhaps also of thriving links with Norway.

Brochs on Sanday

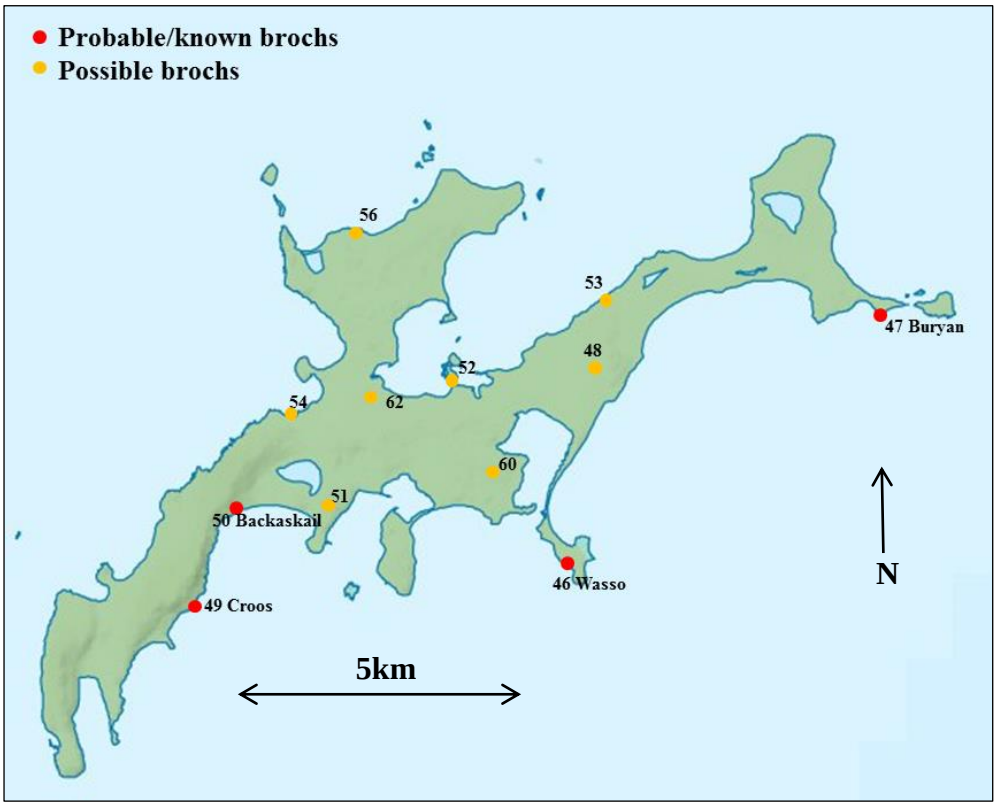

Fig. 7.46: the probable/possible broch sites of Sanday

The *CZA* for Sanday (Moore and Wilson 1999, 15) noted that the island has relatively few broch sites when compared to Westray. As with the chapel-sites, Sanday actually has a fairly long list of possible broch locations, but very few certain brochs. There are four places where a broch has (*almost* definitely) been identified; only one – the Broch of Wasso – has been excavated, and that in 1868; and a further 12 might with varying degrees of certainty, be broch-sites.[80] On the basis of this rather

[80] Broch of Wasso no. 46 was excavated by James Farrer; the remains of Buryan/Buriyan no. 47 (possibly associated with later Iron Age extra-mural settlement like Queena Howe on Westray) are visible in a shore-section; both Croos of Nebister no. 49 and Backaskail no. 50 are visible in eroding sections. A second group have been identified as possible brochs but might be more safely identified as possible prehistoric settlement sites: How no 51, a "tell" site, produced Iron Age finds; the lowest remains at Colliness no. 52 have been recorded as a broch; nos 53 Peterkirk and 54 Marygarth produced midden and finds. Finally, nos. 48, 56, 59, 60,

uncertain collection is there anything to be deduced about the relationship between the brochs and possible Viking-Late Norse settlement? After all, as already noted, it has been asserted on a number of occasions (e.g. Gelling 1984; Buteux 1997; Leonard 2011) that Viking-Late Norse settlement was usually established very close to broch-sites; as was seen in earlier chapters this is not true of other skaill-areas already investigated. Is the position any different on Sanday? The possible broch at Backaskail looking across to the Cross Kirk site certainly occupies the western wing of a bay with probable high-status Viking-Late Norse archaeology (no.1), and later archaeology may yet be discovered nearer to the broch. It is possible Buryan is near later settlement at Park (no. 24); however, the remaining more certainly identified brochs, Croos (no. 49) and Wasso (no. 46), are in areas *not* favoured for Viking-Late Norse settlement: Wasso on Tress Ness: Croos at the base of a steep hillside. Houll (no. 60) on the farm of Skaill may have been part of a site where Viking-Late Norse structures reuse a *non*-broch Iron Age site, but unfortunately no trace remains of the deep structure yielding Iron Age finds noted in the 1946 RCAMS survey. If there is any deliberate relationship between brochs and Viking-Late Norse settlement it seems based on inter-visibility and not on co-location, or even near proximity. However, brochs – and Viking-Late Norse mound settlements – are characteristically highly visible: so any apparent visual linkage might be more to do with that than a deliberate siting decision by later arrivals.

The Skaill-names

The *Original Name-Book* lists four skaill-names for Sanday: the large farm of Northskaill in north-west Sanday; the large farm of Backaskail on the bay of that name and property of the Earl of Zetland; and the more modest farmhouse of Skaill in the centre (Fig. 7.44).[81] The fourth name is of Backaskail Bay.

61, 62, 65 and 66 have only tenuous claims to broch status, are no longer visible or are only alleged; nos 61-62 were listed by Petrie but are now untraceable. No 57 on Lambaness was proved not to be a broch.

[81] Ordnance Survey Name Book list: Orkney Volume 2, Lady, Cross and Burness: www.scotlandsplaces.gov.uk – last accessed 13.12.2014.

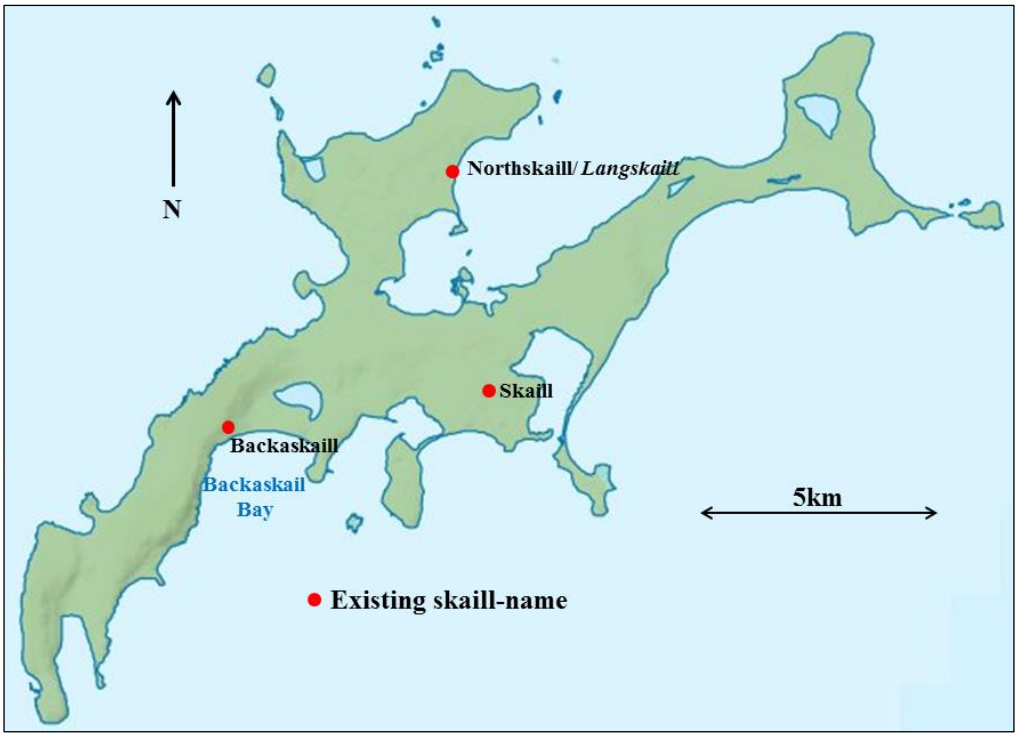

Fig. 7.47: skaill-names in Sanday.

Northskaill (no. 17: south on Fig. 7.45) sits on a large settlement mound; a long coastal erosion-section lies below the now disappeared farm of Langskaill. This latter site appears on Gregor Lamb's map no. 23 (1992) but not on the 1882 map or in the *Original Name-Book* (Fig. 7.48). Lamb also marks another Langskaill on his map 26 as the western portion of a range of buildings called New Ortie in 1882, appearing on the modern map as Upper House. Skelbrae may also indicate a skaill-name in the same area (see fn. 68).

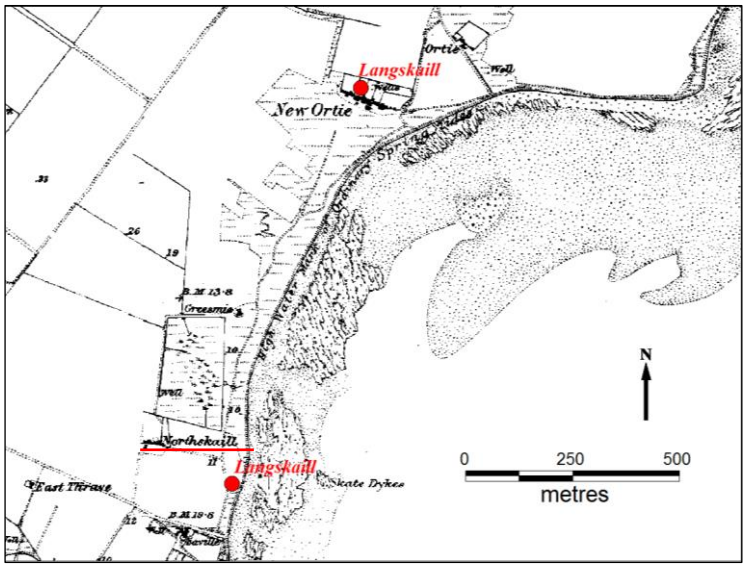

Fig. 7.48: Northskaill on the 1882 map: the two *Langskaills* in red are marked on Gregor Lamb's maps nos 23 and 26 (1992).

Backaskaill appears on the 1882 map as a considerable farm including a corn mill and mill pond to the west. The final Skaill farm is also marked on the 1882 map. There are a few other place-names of interest in the context of this study, including the *bu*-names clustered in the north-east. Despite the range of *bu*-farms recorded in the *Rentals*, only the one near Skaill was listed in the *Original Name-Book* and remains on the modern map.[82] The *stofa*-name in the south-west might suggest a later Norse site in an area known for its prehistoric archaeology and where other structures are reputed to have been lost under the modern farm. There are also two *klettr*-names with interesting archaeological contexts: Cleat (no. 30), a large farm marked on the 1882 map located on a settlement mound surrounded by a range of smaller mounds; and Gleat, a farm also on a settlement mound by North Loch in north-east Sanday.

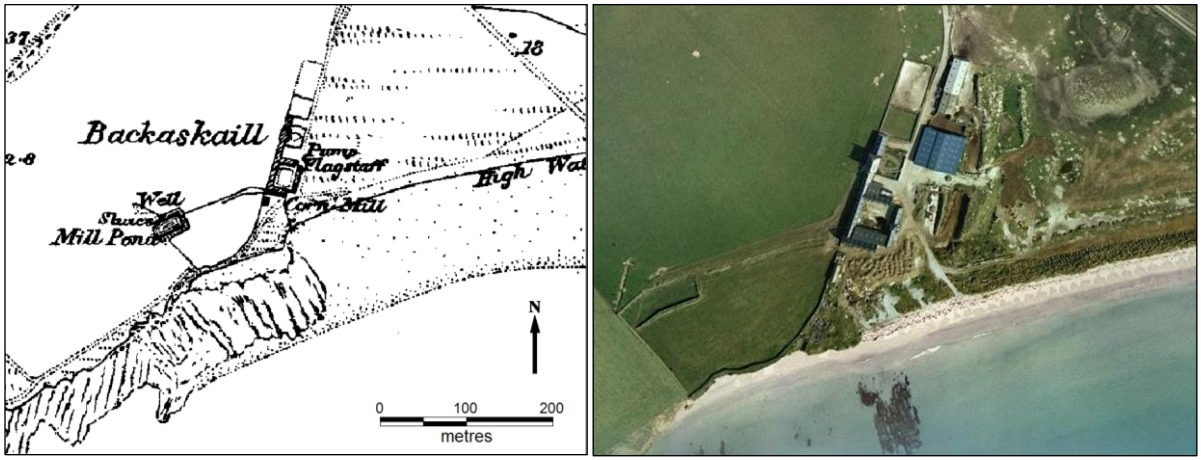

Fig. 7.49: Backaskaill on the 1882 map, the modern farm to the right ©GoogleEarth.

Finally there are a few *bigging*-sites, ON *bygð* (‘dwelling’ ‘settlement’). Newbigging in north-west Sanday appears 500m south-west of the farm of Skelbrae (no. 17a) on the 1882 map, but has now completely disappeared (Fig. 7.50). With the Northskaill/*Langskaill* names less than a kilometre up the coast this area encompasses a considerable number of functional names for significant farms. A Newbiggings is located near to Westbrough (no. 65), and Newbigging and Langbigging (very close to mound no. 141) in north-east Sanday are near the cluster of mounds on Lopness.

[82] The Bus of Walls, Tafts and Lopness in the north-west, the Bu of Tresness and the Bu of Brough are given in the *Rentals*. It is possible that the largest Bu in the north-west – Lopness – was the original farm with the others given the Bu name to designate them as part of the Lopness estate. This gives further support to the argument that Bu of… names are later Scottish-influenced namings (Sandnes 2010).

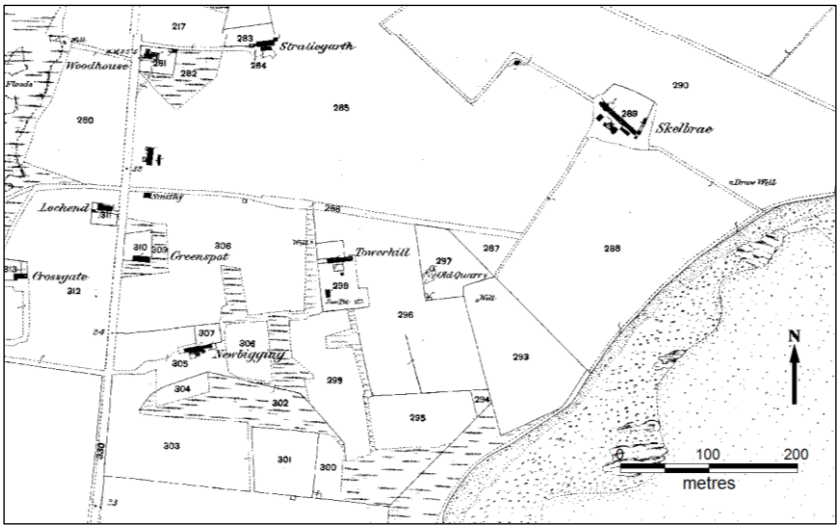

Fig. 7.50: Skelbrae and Newbigging on the 1882 map.

Conclusion

This comprehensive reappraisal of Viking-Late Norse archaeology on Sanday suggests the settlement pattern on Sanday was probably centred on three skaill-areas (Fig. 7.51). The *klettr*-names in north-west and north-east Sanday help fill in apparent gaps in the settlement mound distribution (see Chapter 8). The site of Pool also illustrates the potential variety of settlement on Sanday in this period: places with differently weighted preoccupations operated alongside the skaill "system". There are many areas of Sanday that would benefit from more research – detailed investigation of Area 2 around Skaill would be especially productive – not least to explore further the possibility that the Viking-Late Norse society on Sanday was slightly separate and differently constituted from that of the earldom centre.

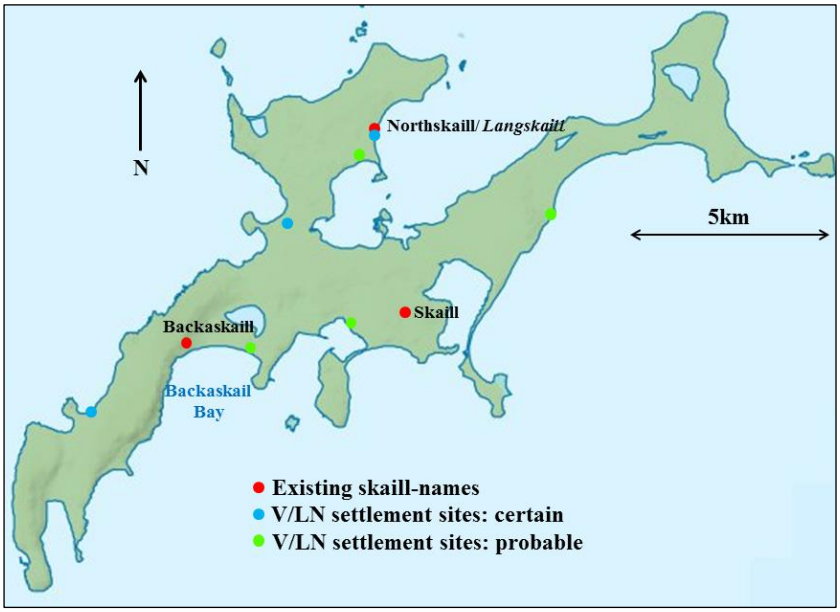

Fig. 7.51: skaill place-names with certain and probable Viking-Late Norse settlement.

Chapter Eight: Skaill place-names in Orkney: landscape and social organisation

Place-names and settlement

Introduction

Place-names are a valuable source of evidence for investigating early medieval settlement landscapes, including those influenced by new arrivals to an area. They supply 'windows into the lives lived by the settlers and their descendants' (Townend 2014, 169). Supplementing often sparse documentary sources they provide another perspective on societies, mediated through people's responses to the realities of their surroundings (Carroll and Parsons 2013; Jesch 2014, 43-47). However, place-names need to be used with caution, especially by non-specialists, drawing on etymologies established by philologists and with an emphasis on general patterns of place-names rather than individual site-names (Abrams and Parsons 2004, 394; Townend 2014, 11). In the past, place-name distribution maps have been used to plot the extent of Scandinavian settlement – the proportion of Norse-derived names roughly equating with the completeness or otherwise of Scandinavian conquest. But in the last twenty years productive collaborations between historians, archaeologists and place-name scholars have applied place-names to wider studies of how people in the past organised and understood their landscapes (Jones 2013).

Two broad categories of place-names are usually presented: topographic, referring to landscape, for example ON *haugr* ('rounded hill', 'burial mound', 'artificial mound'); and habitative, referring to types of dwelling, for example ON *stofa* ('living room'). A third category should be included: functional names reflecting a place's social or economic role (Lamb 1997, 13-16; Thomson 2008b, 15), to which *skáli/langskáli* ('hall'/'long hall') belong.[1]

[1] Place-names are often formed of two elements: in Germanic names a generic element which denotes the type of place comes second with an initial specific, which defines that particular place, thus *langskáli* ('long hall'); Celtic place-names present the opposite order.

Those working with Orkney place-names have benefited greatly from the linguistic interpretations and name collections of scholars of Orkney onomastics, pre-eminently Hugh Marwick, and especially his 1952 book, *Orkney Farm-Names*; but also more recently, amongst others, Berit Sandnes (2010) and Petr Gammeltoft (2001). The first documentary records of Orkney place-names are much later than in England. There is no Scottish *Domesday Book* or collection of pre-twelfth-century charters. Some names are documented in *Orkneyinga saga* (see pp. 11-15 above), but more extensive records only became available in *Lord Henry Sinclair's 1492 Rental of Orkney* (Peterkin 1820).

Place-name evidence and the investigation of Scandinavian settlement

The first step in using place-names must be the linguistic interpretation of a place-name's meaning – its etymology and attestation. Those meanings and place-name distribution patterns can then be studied for what they reveal about the nature of settlement. Distributions of place-names have been applied to three broad areas of questioning: the when and where of settlement; the chronological development of settlement; and finally the character of the settlement.[2] Early researchers focused, amongst other things, on assessing the scale and extent of Scandinavian settlement in the western diaspora as indicated by Scandinavian/Scandinavianised place-names. This approach was pursued especially vigorously in the English Danelaw where the lack of distinctive archaeological evidence made it more difficult to answer questions of how many and where (see e.g. Sawyer 1957 for the debate). Large numbers of Norse and Norse-influenced names were correlated with large numbers of settlers. The strength of this correlation has been much discussed, but most recent scholarship argues that, in the Danelaw, the high proportion and lively variety of Norse-influenced names equated with a substantial and probably 'prolonged' process of Scandinavian settlement with continued contact between homelands and settlements (Hadley 1997 and 2002; Jesch 2015, 44; Townend 2014, 96). Similarly, although absence of Norse place-names does not necessarily indicate lack of settlers, the distribution of such place-names continues to be linked broadly with settlement extent. In Orkney by contrast the takeover was such that naming-patterns came to be shaped exclusively by the impact of

[2] A fourth strand assesses the fate of the previous population: rendered impossible when virtually all previous place-names have been replaced.

newly dominant Norse. Hugh Marwick calculated that 'probably 99 percent of Orkney [farm] names were of Norse origin' (1952, 227).[3] There could be no doubt of the Scandinavian dominance – linguistic and otherwise – of the entire archipelago, and the use of place-names to assess the reach of settlement was redundant.

Attempts have also been made to use place-name evidence to determine a chronological sequence of settlement. This approach has been more forcefully criticised. Dawn Hadley noted recently: '… few would now attempt to use place-name evidence to establish a chronology of settlement' (2000, 21; Abrams and Parsons 2004); Berit Sandnes, a scholar of Orkney onomastics, agreed (2010, 35). In the mid-twentieth century Hugh Marwick proposed a sequential model of settlement development in Viking-Late Norse Orkney, on the basis of his extensive etymological research and intimate knowledge of the landscape. The oldest and most important farms were on fertile coastal sites, the younger and secondary settlements on the higher less productive land.[4] However, Marwick always emphasised this was just one hypothesis, which should be re-examined by future researchers. Later scholars – in particular William Thomson – have indeed unpicked the chronological aspects of Marwick's model while drawing extensively on his etymological work. Thomson noted: 'names primarily describe the nature of the farm, and it is only by inference that these characteristics can be transferred into chronology' (1995, 50); and suggested 'most generics [in Marwick's plan] were active simultaneously rather than consecutively' (2008b, 7). The farms Marwick discussed as settled in sequence Thomson saw as a hierarchy bound together in 'a single social unit' (1995, 50). The emphasis had moved decisively to investigating the character and relative status of settlements, their interaction and landscape location.

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[3] Marwick made his calculation on the basis of farm-names in the *Rentals*: there remains much onomastic work to be done on field- and other names in Orkney (Sandnes 2010).

[4] This model proposed that the *býr* names denoted primary and foremost settlements; *skáli* and *staðir* were interpreted as new names for previously established farms, but also as belonging in that earliest date range, with later and secondary settlements including *kví* and *setr* place-name elements (Marwick 1952; Thomson 2008b, 6-8). Marwick also suggested the first farms, including *skális,* were established before AD900, the date he believed Harald Finehair introduced the formal skat/tax-paying system. This dating has been challenged since and especially the attribution of the introduction of the assessed skat-paying to as early as AD900 and by Harald Finehair. Furthermore the fifteenth-century *Rentals* are no longer mined to postulate Norse settlement patterns – this makes too many assumptions about lack of change in land arrangements and use – as Sarah Jane Grieve noted: 'this is considered to be a misapplication of rental information' (Grieve 2005, 115).

This has developed as a fruitful application of place-name evidence, extended in recent years to consider how place-names reflect the ways people exploited and thought about their landscape. Place-names are increasingly investigated in context, in their landscapes and in relation to any relevant archaeology and documents (Higham and Ryan 2010; Gelling 1984). This approach is of course particularly congenial to archaeologists and especially helpful in studying diaspora settlement. Studied in their setting, place-names provide clues to the character of societies emerging in areas targeted by settlers. Incoming people inevitably provoked change in already inhabited areas like Orkney – in land organisation, in social structure and in agricultural practice. One of the concomitants of this process was new place-names. Those names, therefore, at least partly reflected the social and economic role of settlements in developing social systems and 'revealed human interactions with their environments' (Jesch 2015, 43). More recent research in Orkney has aimed at elucidating the social and economic organisation captured in the web of naming across the islands (Lamb 1995; Stylegar 2004; Thomson 1995 and 2008b). This chapter also focuses on the landscape context of the skaill place-names, but introduces that discussion by looking at the challenges posed by place-names, before discussing the meaning of the Orkney skaill-names alongside a brief history of place-name research in Orkney.

Using place-names to characterise settlement: the Orkney perspective

The difficulties in working with place-names are many, and constrain the conclusions that can be drawn. Naming is a complex process and its 'problematic nature' means there is potential for a plethora of interpretations of both etymology and place-name patterns (Abrams and Parsons 2004, 381). However, much detailed linguistic work has been accomplished and certain fundamental principles govern the use of place-names, ensuring their application in research is not a free-for-all (Townend 2014, 11). Firstly, the interpretation of meaning is accepted in the awareness that the initial recording of a place-name is almost certainly some – often considerable – time after its first coining. There are several problems attendant on that time lag, summarised as 'the complexities of transmission' (Abrams and Parsons 2004, 393). These are especially relevant to Orkney, where most names are only attested in the late-fifteenth century. Beyond the reach of the oldest available documentary sources for Orkney, *Orkneyinga saga* and the 1492 and following *Rentals*, the histories

of place-names are lost. We cannot be certain of the precise context for the names' first application and acceptance. Some names have survived to be recorded, but others have not: of those that survive some have changed or lost meaning, or moved location. Topographical and water names tend to persist, but settlement names are much more liable to change (Sandnes 2010, 343). A building or collection of buildings may have been named for one function, only for that character to change: perhaps from high to low status; or from a home to a complex of work-buildings. Names might also shift to follow function. It is argued here that skaill-names in Orkney originally denoted a high-status dwelling (see below), and some may subsequently have moved with the family whose power dignified the name. For example in the Bay of Skaill, a skaill-name was given later, or had been shifted, to the seventeenth-century Skaill House. Thus, some place-names might be informative while others, with a change in meaning or in the role of the settlement, have become 'merely a label' (Jesch 2015, 43).[5]

Secondly, different things can happen when place-name elements are transferred from homelands to new settlements. Names might be transferred directly; new names might be coined, but following the homeland system; or new place-names given within a new naming pattern rooted in the homeland culture, but bred in a different landscape and social context (Carroll 2013; Sandnes 2010). The transfer of place-name elements from Norway, west across the sea was by no means always straightforward. The names of Viking-Age Norway are the basis for the linguistic interpretation of the place-names of Orkney (Brink 2008; Olsen 1928; Rygh 1924). The research of Norwegian scholars, especially Oluf Rygh and Magnus Olsen, an early onomastic researcher who worked with Rygh on his seminal *Norske Gaardnavne* (Norwegian Farm Names), underpinned the work of Hugh Marwick and his successors (Marwick 1952; Sandnes 2010, 33). However, a naming system with different emphases clearly developed, following the Scandinavian settlement, to meet the needs of Orcadian Norse society. As a result some place-name generics were more common in Orkney than in Norway and others took on a different meaning. Berit Sandnes noted that 'quoy' ON *kví*, ('animal fold'), the most frequent generic in Orkney, is very rare as a place-name element in Norway. Similarly *skáli* is a familiar farm-name

[5] Naming can also be a continuous process with some place-name elements being actively used for long periods. For this reason alone trying to use place-names to establish a relative chronological sequence of settlement spread is problematic.

generic in Orkney: in Norway it rarely appears and never in simplex form (Sandnes 2010, 89fn). Magnus Olsen noted that Rygh's list of compound elements for farm/dwelling did not include -*skáli* (Olsen 1928, 22). Some place-names also developed a different nuance of meaning in Orkney and again *skáli* is one such (discussed below pp. 364-7; Sandnes 2010, 288). As place-names are so grounded in their surroundings, it hardly surprising that meanings should vary between areas. No one meaning for any place-name element should be assumed for the whole of England, let alone the Danelaw and Orkney, or Norway and Orkney. This is why context is so important: 'what prevents anarchy in place-name study is context' (Abrams and Parsons 2004, 394 and 422). Focusing on groups of place-names and comparing their landscape context, topography, archaeology and any documentary references, provides a restraint on possible interpretations.

Apart from the general change in landscape and cultural context, two further factors were probably significant in the emergence of an Orkney-specific naming pattern. The first was that Orkney was already inhabited, so the role and status of settlements within new arrangements needed to be made clear: settlement functions familiar in the homelands needed to be more emphatically stated in a new cultural context. The second was perhaps even more fundamental. In the Danelaw, Scandinavian settlers encountered locals speaking Old English. At the very least for pragmatic purposes Old English and Old Norse were mutually intelligible, more like different dialects of the same language (Townend 2002 and 2014). Presumably place-names were also understandable, and might remain if the role of the settlement continued relatively unchanged. In Orkney things were quite different: the indigenous language used by the Picts was, it is assumed, not as easily understood. Inevitably even place-names for still-active settlements taken over by incomers would have been changed.[6] Studying groups of place-names in context thus becomes more critical and this study has, as Abrams and Parsons suggested, drilled down to 'a closely local context' (2004, 422).

The study of place-names in the Western Isles has focused more on the issue of native survival and the relative relationship of different languages: here researchers have detected two zones of place-names

[6] This must also have underlain the completeness of the Norse renaming of Orkney settlement.

with a different mix of Gaelic and Old Norse place-names reflecting local differences in the development of Scandinavian settlement (Jennings and Kruse 2009).

The meaning of the place-name *skáli* in Orkney

Dictionaries of Old Norse are not unanimous on the meanings of ON *skáli*. Most often two meanings are cited: it refers either to the main building on the farm, (even specifically 'drinking/feasting hall'); or to a 'primitive building for temporary use', 'shed/hut' (Sandnes 2010, 89). In some only the latter definition is given. Both interpretations 'applied to a specific building' (Marwick 1952; Thomson 2008, 7), and at least partially explained its function, but with a perplexing contrast in meaning. The 'hut' interpretation was apparently the only one considered for settlement in the Danelaw (Ekwall 1936, 403ff; Fellows-Jensen 1985, 50), while the former applied almost exclusively in Orkney. As Sandnes noted, the high-status 'usage of skaill…is particular to Orkney' (2010, 90; Lamb 1997). This conflict may be partly explained by the much more mixed linguistic influences within the Danelaw – although possibly strongly influenced by Danish naming patterns – as compared with the more exclusively Norwegian emphasis in Orkney. However, Sandnes' research underlined that, although most Old Norse place-name elements were common to Orkney and Norway, a number of generic place-names found frequently in Orkney were rare in Norway, including *skáli* (with the meaning 'hall') (2010, 76-8).[7] This attests to the development of an active Orcadian naming tradition beginning in the Viking-Late Norse period. If it is also remembered that many place-names are polysemic – elastic in meaning – it becomes more comprehensible that words incorporating shades of meaning could, in different contexts, lose or gain meaning. Eilert Ekwall with his emphasis on the English context included only the 'hut'/'temporary building' definition in the much-reprinted 1936 *Concise Oxford Dictionary of English Place-Names*, thus perhaps informing the scepticism of later scholars, and in particular Gillian Fellows-Jensen, about the 'hall' meaning, even in Orkney.[8] Gillian Fellows-Jensen remarked that the *skáli*-name 'has always seemed problematical to me' (2000, 137): it should

[7] The longhouse – as found on the western coast of Norway – corresponds to, according to Magnus Olsen, what the Eddic poems call a *salr* (1928, 9). The term *skáli* is not used in skaldic verse.
[8] There is a major place-name and landscape archaeology investigation still to be done exploring the locations and context of the English skaill-names: after detailed investigation their low status and marginality might not appear as convincing. A brief study by the author suggested some are in locally good agricultural locations.

be underlined however that Fellows-Jensen – certainly in that essay – was not looking at the landscape context of the names or considering archaeological evidence. Her explanation for the undoubted location of Orkney *skáli*-names on prime sites was to propose that some of the most beneficially placed 'shieling-huts' (*skálar*) had subsequently developed into power-centres (ibid.).[9] It is difficult to understand why a shieling in Orkney would ever have been located amidst prime agricultural land, near the coast. The distances within the Orkney landscape are also so short as to render a full shieling system unnecessary. Indeed, the archaeology suggests rather the opposite with originally high-status skaill-sites losing their leading role in the twelfth century (see pp. 28-9).

It is clear from the landscape location and documentary use of the *skáli* place-names in Orkney that the hall-related meaning is more apposite. A succession of northern-focused onomastic and historical researchers over at least two centuries have accepted that skaill-names signified a high-status building, despite assertions from the English perspective.[10] Those familiar with the Orkney agricultural landscape recognised the skaill-sites' advantageous locations on 'good, old, fertile land' and were further confirmed in their adherence to the 'hall' meaning by *skáli* references in *Orkneyinga saga* (Lamb 1997, 15; Marwick 1952, 237-40; Thomson 2008b, 15-17). Marwick was definite that 'in Orkney Skaill indicated a dwelling-place of real dignity' (1952, 239). J. Storer Clouston had gone further, designating the Skaills as the 'chief homes' of each tunship (1932, 14). In *Orkneyinga saga*, *skáli* is used as a common noun for a prestigious feasting-hall, and applied to the earls' residence at Orphir, to the hall on Damsay, Svein Asleifsson's drinking hall on Gairsay, Sigurd of Westness' hall, and *Hlaupandanes* that may be Skaill (Deerness). Langskaill as a habitation name is used for Svein's Gairsay hall in Chapter 108 of *Orkneyinga saga*.[11] These hall-sites are also associated in *Orkneyinga saga* with the *veizla* system: the network of places required to host the peripatetic earls and bishops and thus linked with travel, feasting, gathering of renders, gifts and transactions, and local prominence

[9] Professor Heather O'Donoghue has suggested that the plural *skálar* (perhaps denoting several small buildings) is more usual in sagas other than *Orkneyinga saga*, making its singular use, *skáli*, in the latter saga distinctive, and perhaps indicating a different meaning more suggestive of a principal 'hall' building (personal comment 4.2015).
[10] And indeed seems to be reflected in the *OSA* and *NSA*, informed by the saga references.
[11] Frans-Arne Stylegar noted that in sagas the more common term used to denote the most important dwelling-space was *skáli*; in the older skaldic poetry terms like *salr* and *hǫll* were used (2004).

– literally and in terms of power.[12] Magnus Olsen stressed that names signifying dwelling-places, and often referring to their role, were especially valuable in historical (and archaeological) research (1928, 68).[13] Viking-Late Norse Orcadian society needed names to denote 'important meeting hall'– the skaill-names – which tells us something about its organising features.

Hugh Marwick concluded that skaill-names in the Viking-Late Norse period denoted 'new buildings [on an already significant site] of some distinction', erected after the initial burst of land-taking (1952, 239). This is plausible as the name seems to reflect a more established social system. That interpretation of the status of skaill-sites has not been challenged by later researchers also familiar with the Orkney landscape. W. F. H. Nicolaisen concurred that skaill-names were associated with high-status sites (1976); and although William Thomson challenged Marwick's chronological framework, suggesting the range of habitation names within which *skáli* sat indicated a settlement hierarchy rather than the development of settlement, he agreed with much of Marwick's analysis of the role of the *skáli* (1995). Thomson, reflecting on Marwick's case study of the bay carrying Marwick's own name, suggested that *skáli* was probably 'a new name developing in a central place replacing the original [head] farm', in this case the farm of "Marwick" (2008, 8-9). Raymond Lamb stressed the linkage of skaill-sites to the *veizla* system (1997), and Frans-Arne Stylegar included skaill-sites in a study of central places in Orkney (2004).

There might be a way of establishing some correspondence between the two meanings by emphasising the *temporary* aspect of the skaill-names. Marwick quoted Oluf Rygh as defining *skáli* in three ways: sometimes as a hall; sometimes a detached building alongside the dwelling-house used for diverse purposes; and sometimes a house for temporary occupation some distance from the farm (1952, 239). Neither of the latter two definitions necessarily insists the buildings' purpose be low-status. But the

[12] The references to hall/*skáli* are in Chapters 33, 54, 56, 65, 66, 70, 74 and 76. See Taylor 1938: pp. 191, 215, 217, 237, 241, 250, 254, 255 and 258-60.

[13] In his *Farms and Fanes of Ancient Norway* Olsen stresses that *skáli* is a naming term for a particular building and thus useful in historical investigation, although it is clear from his researches that the name is not widely used in Norway, in particular in its simplex form (1928, 68 and 146). However he records an (undated) Norwegian *gildaskáli* form, meaning banqueting hall for 'organised convivial assembly' (ibid. 251).

common denominator between those definitions is an element of flexibility and temporariness. When an earl or leading person was visiting the *veizla* system probably required that buildings were drafted into different and short-term purposes to house the entourage, shelter horses, and store collected renders and provisions. The usual human and animal inhabitants of some buildings were displaced; perhaps temporary structures had to be erected, expanding the *skáli*-site to accommodate the peripatetic group. There is a defining element of "passing through", of movement and temporariness.

In this thesis the *skáli*-name was taken, therefore, to signpost socially important, central halls with particular functions: probably a flexible space adaptable to the demands of feasts and ceremonies and the practicalities of feeding and sheltering everyone. This purpose is of a piece with the tenor of Viking-Late Norse society in Orkney up to around AD1200. Architecturally, skaill-halls needed like other open domestic spaces to be 'dynamic envelopes' (Barber 2003, 229), potentially 'multi-functional' with strong social and likely symbolic roles (Stoklund 1984, 98). In the wider context the place-name serves as an indicator of an area of cultural landscape organised around the local *skáli* power centre: what Stylegar terms an "aristocratic landscape" (2004). In this study the skaill-names were used to help locate and consider the archaeology of areas where Viking-Late Norse society was organised around a local "central place". Combined with archaeology, landscape and sometimes with other names, skaill-centres can help characterise Viking-Late Norse local political organisation and attitudes to place. The intention is not to identify saga sites, or to link single farms to individual names so as to derive specific assumptions about particular locations, but to consider the wider aspects.

Skaill-sites: the Orkney Context

This section unlocks the potential of *skáli* place-name patterns by investigating their landscape context: their location and the features of the surrounding land. William Thomson explored groups of Orkney place-name generics by examining some measurable characteristics of 1000 place-name

elements, including 42 skaill-sites (Thomson 1995, 55-6).[14] Aside from pennyland values and sizes, and numbers of whole urislands for each category of name,[15] he recorded average height above sea level and median distances from the sea and moorland. For the *skáli*-names Thomson's figures were: average height OD 55 feet (17m) and median distances from the sea and moorland 300 yards (274m) and 700 yards (640m) respectively (2008, 10). Table 8.01 looks at a greater range of archaeological and landscape characteristics for each skaill place-name site including: proximity to the sea, to early chapels, to burns/lochs; their height above sea-level; whether the sites are on a mound; their visibility; the underlying drift geology; surrounding place-names of interest such as Bigging(s), Howes and Cleats (see discussion below); and the presence of earlier occupation than Viking-Late Norse and modern buildings. These are all characteristics that contribute to understanding the nature of the sites.

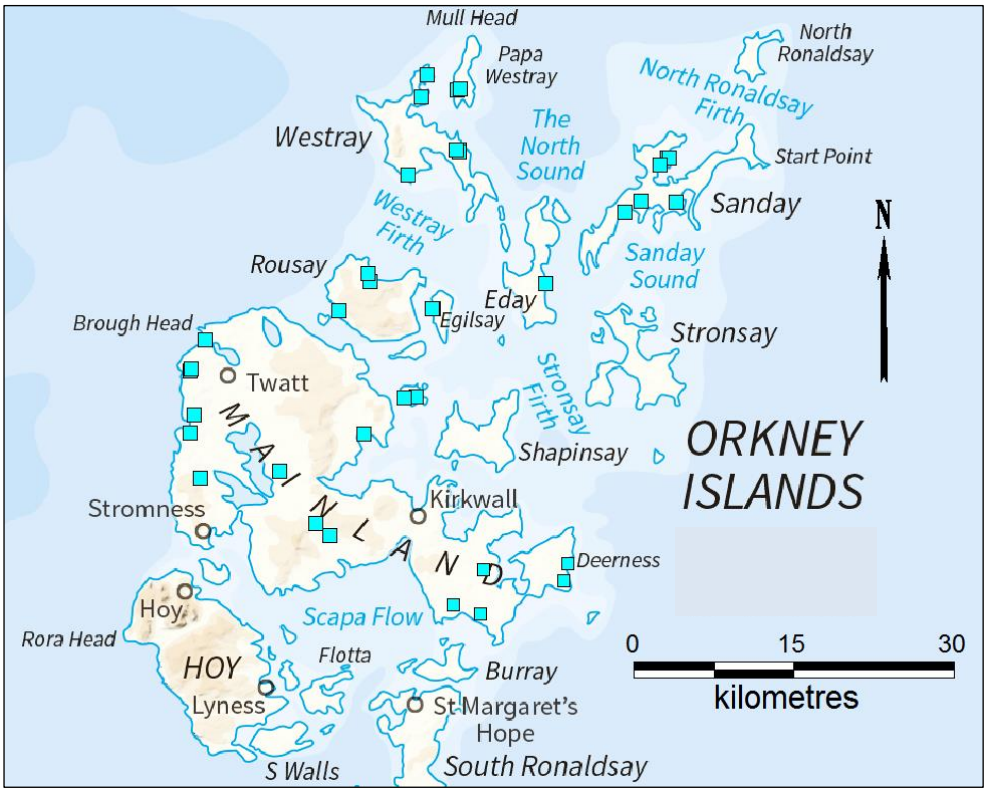

Fig. 8.01: blue squares mark skaill place-name sites; note their absence on the southern islands, Shapinsay, Stronsay and North Ronaldsay.

[14] These are not listed and the author can only discover 38 skaill-sites: it is possible Thomson included some of the very few Skaill names now applied to skerries, bays and other topographical features.
[15] The implications of pennyland and skat values are not going to be considered here: if the premise is that settlement pattern as relevant to skaill-sites changed radically in the twelfth century then, in anything other than broad outline, the records of the *Rentals* can only elucidate the later pattern, from after around AD1200.

The skaill-names (38 of them) present a manageable number to investigate in some detail. They are also notable for a generally well-spread distribution (Fig. 8.01). Their landscape characteristics concur with the high-status designation. The majority of skaill place-name sites are in 'prime' locations on the most productive agricultural areas;[16] most usually on coastal sites, with access to fresh water and a range of grazing and common land; easily accessible by either sea or land; prominent and visible, with coast-edge sites especially dominant from the sea-approach; and often found near possible early chapel-sites. Other skaill-areas were almost certainly strategic, commanding important sea-routes or sweeping views of important locations – such as Langskaill (Gairsay) and Skaill (Rousay). Only two, possibly three, sites currently with skaill-names have been excavated – Langskaill (Westray), Skaill (Deerness) and Skaill (Sandwick) – minor explorations of others, or of erosion-sections, have revealed their probable status as multi-period settlement mounds.[17] Nothing in the archaeology undermines the Orcadian interpretation of the place-name.

While investigating the place-name sites as locations, however, the assumption is being made that any existing building may not necessarily be the exact location of the original skaill-settlement, rather that the immediately surrounding area is one within which, in the Viking-Late Norse period, it was important to have a settlement which carried *skáli* functions. There were no villages in Orkney, as understood in early medieval England (but see pp. 370-1), so the place-name might be taken to have relevance not to a group of farmsteads and cottages, but to an area topographically related to and visible from around the probable location of a *skáli* place-name.

The characteristics of all the skaill place-name sites as a group: Table 8.01[18]

As a group the sites are usually near the sea – 81% are within one kilometre, and 64% less then 500m from the sea – most of those are on sandy bays (mean distance from the sea 334m, excluding the seven

[16] The best arable areas for early medieval farmers were on Sanday, Papa Westray, West and East Mainland and the fringes of Rousay.
[17] Northskaill, Langskaill and Skelbrae, Sanday.
[18] In some cases it was not possible to be certain without excavation whether sites were definitely on windblown sand or next to burns, so all the percentages are indications rather than precise figures. Details of all the sites can be found in the relevant area chapters and in Descriptive Catalogue 1.

sites more than one kilometre from the coast).[19] Those not close to the sea are mostly near lochs (six out of seven sites). 80% of all sites are next to burns, and the remainder almost certainly were before drainage systems were constructed. The very few skaill place-name sites not next to lochs or the sea may be on significant land routes, for example Skaill (Orphir; no. 11, Table 8.01) overlooking the route from the Earl's Bu area through to the lochs of Stenness and Harray. The overwhelming majority of skaill-sites are close to a purportedly early chapel: 69% close to a certain/probable chapel location, with a further 21% near possible chapel-sites (some are very close to the chapel, like Skaill [Sanday; no. 34], 39% are within a kilometre, the furthest distance being 1.7km). The chapels were almost certainly established after the skaill-sites, so while they are indicators of the importance of the area when the chapels were constructed they cannot be included as a pull-factor influencing the location of the skaill-sites (see Gibbon 2007 on the establishment of early chapels). Just short of 50% are sited in established areas of windblown sand like Skaill (Westray; no. 26), with 19% more on major sand-drifts. 22% appear to be associated with deep top-soils like Langskaill (Marwick; no. 4) meaning over 90% were amidst the best arable land. Their mean height above sea-level remains the same as Thomson calculated, at 17m or around 55 feet. Not surprisingly, as these are the names that have survived, 89% of them are connected to modern buildings. Whether these denote the exact original locations of the skaill place-name sites is of course not certain. Langskaill (Westray; no. 21) is a good example of this. The current farm is called Langskaill but the excavated Viking-Late Norse site, while extending beneath the modern farmyard, had its focus just to the north.

All are extremely well-placed to be visible in the surrounding landscape, on a mound or crest, and they are often in strategic locations in relation to sea-routes, such as sites along the coast of West Mainland, and Skaill (Rousay; no 27). Just under 90% of the sites are mound-located to overlook a wide area, often on a mound also on a crest or small ridge, like Langskaill (Westray; no 26). These mound-locations suggest that many of the currently skaill-named sites could be built over archaeological remains. Some, as far as can be established without further excavation, are built directly over

[19] As so little is known about the long-vanished Langskaill in Scarwell, Sandwick, it is not included in the calculations, leaving 36 sites (see Table 8.01: all numbers with sites in the text refer to Table 8.01).

prehistoric settlement, although sometimes after a hiatus in use (see Table 1.01). Using convincing/ plausible archaeological data, only eight sites or 22% fall into this category – three certainly/probably: Skelbrae (Sanday; no. 35); Langskaill (Westray; no 26); and Skaill (Deerness; no 14); and five possibly: Saviskaill (Rousay; no 28); Nether and Mid Skaill (Egilsay; nos 30-1); Backaskaill and Langskaill (Sanday; nos 33 and 37). Building over prehistoric settlement does not, on this evidence, seem to be a decisive factor in locating settlement, but rather a coincidence created by other drivers (contra Leonard 2011). The majority of the excavated mound-sites, 71%, such as Skaill (Deerness; Table 1.01) were, however, rebuilt incorporating earlier Viking-Late Norse structures. All of the sites, except possibly Skaill (Sanday; no. 34), are within landscapes punctuated by prehistoric burial mounds: for example around Skaill (Deerness; no. 14) and Skaill (Rendall; no. 8).

Thus, the most significant elements in deciding location seemed to have been: ensuring visibility (from and to, and across sea as much as land), specifically by building on a conspicuous mound; proximity to the sea and/or fresh water; good communications; soils and landscape resources. The proximity of prominent small (usually burial) mounds may have been relevant, but the visibility of those other mounds is of course linked to the skaill-sites' location – they were points from which the landscape could be surveyed as well as locations to be looked at. Otherwise the sites are rather distinguished by a preference for rebuilding Viking-Late Norse structures incorporating preceding ones of the same period, than for targeting prehistoric structures to build over. It is, however, noticeable that there seems to be more of a tendency to build over settlement sites from the immediately preceding *non*-Viking period in especially significant political areas such as Birsay Bay and perhaps Skaill (Deerness).

Comparing the Skaill and Langskaill place-name sites: Tables 8.02 and 8.03

Fig. 8.02: red squares mark Skaill place-name sites, well-distributed through the islands; pink squares are sites that may originally have been a single Skaill site or skaill-grouping.

The skaill-areas can also be examined as groups of Skaill and Langskaill sites. There are 10 Skaill place-names, including the less convincing *Skaills* site in Holm (no. 6, Table 8.02; Fig 8.02), with a further four, not included, which might represent a subdivided original Skaill or Langskaill site, some perhaps relatively recently so (i.e. Westray: West and South Langskaill; Marwick: Netherskaill and Langskaill; Papa Westray: Breckiskaill and Backaskaill; Egilsay: Mid and Nether Skaill). The 10 simplex Skaill sites are especially well-placed and evenly distributed: closer to the sea (170m, excluding the two Mainland "inland" sites); situated on major sandy bays, or in one case an important land route; and near a range of land including good arable soil.

Hugh Marwick proposed and William Thomson agreed that skaill-sites in close proximity, such as Langskaill and Netherskaill in Marwick, represented a larger original Skaill (or, I would add, Langskaill) site, subsequently subdivided – one or two perhaps in quite recent times. With the archaeological evidence now available it appears that *skáli*-sites may often have embraced a collection of buildings spread over more than one mound, such as at Skaill (Deerness) or Skaill (Sandwick).

Thus some of these closely located sites may not have been later divisions, but reflect an original loose grouping of, possibly contemporary, structures within a *skáli*-area.

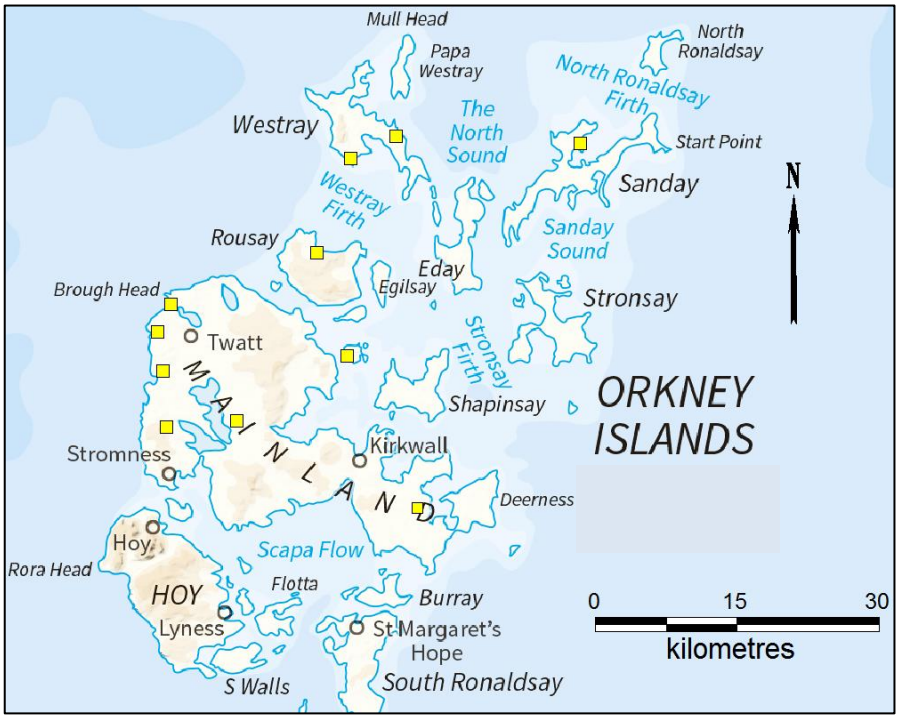

Fig. 8.03: yellow squares mark Langskaill place-name sites.

The Langskaill place-name sites are less evenly-distributed (Table 8.03; Fig. 8.03). There are 13 altogether, but that number includes the elusive one in Scarwell, Sandwick (West Mainland) and three in Skel Wick (Westray; nos 9-11) that may perhaps be one original Langskaill site divided or grouped sites. Interestingly Skaill and Langskaill place-names tend not to be found close to one another: they have geographically different distributions with similar, but not identical, landscape characteristics. The majority of Langskaills are further from the sea than the Skaill sites – around 375m mean distance – and there are three "inland" Langskaills. They are similarly surrounded by probable burial mounds and in visible locations, but in general a little less prominent in their landscapes. Not as often on windblown sand soils, they are also less well-placed in relation to arable soils. Some of the Langskaills are sited on less significant bays.

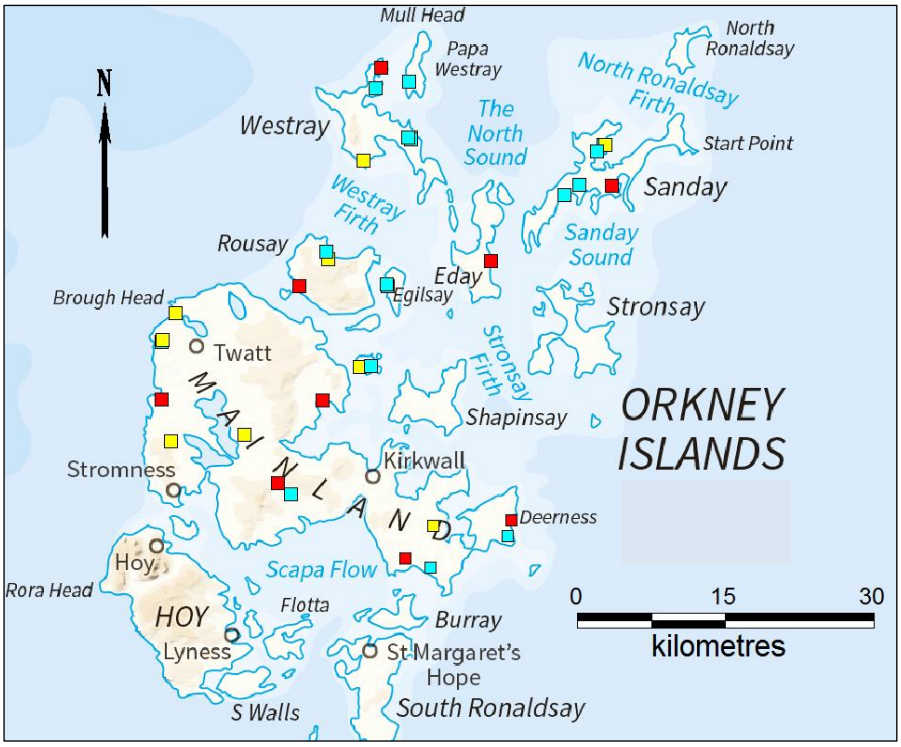

Fig. 8.04: red squares mark Skaill place-name sites, yellow Langskaill sites and blue other skaill place-names.

The remaining 16 skaill place-name sites have a similar geographic distribution to the Langskaills, but are slightly closer to the sea (mean distance 292m; Fig 8.04). The elements joined with *skáli* are: nether ON *neðar* ('lower'); bister ON *bólstaðr* ('farm'); savi ON *sævar* ('sea'); aiker ON *akr* ('field/acres'); backa/backi/ brecki/ brecka ON *brekka* ('slope'); and directional names: mid, west, south and north. These are significantly less likely to be on windblown sand (except for the three on Sanday), and are in less dominant locations. Skelbrae, Skelbister, Aikerskaill and Skelbist may be later namings (Skelbist on Gairsay definitely is, perhaps reflecting the Langskaill name on the estate). Some of the sites may be later sub-divisions, or parts of a *skáli* or *langskáli* site. The Backaskaill and Breckiskaill on Papa Westray, and Mid and Nether Skaills on Egilsay may reflect an original, later-divided Skaill site; the South and West Langskaill in Westray, Saviskaill on Rousay and Northskaill on Sanday, parts of an original Langskaill site.

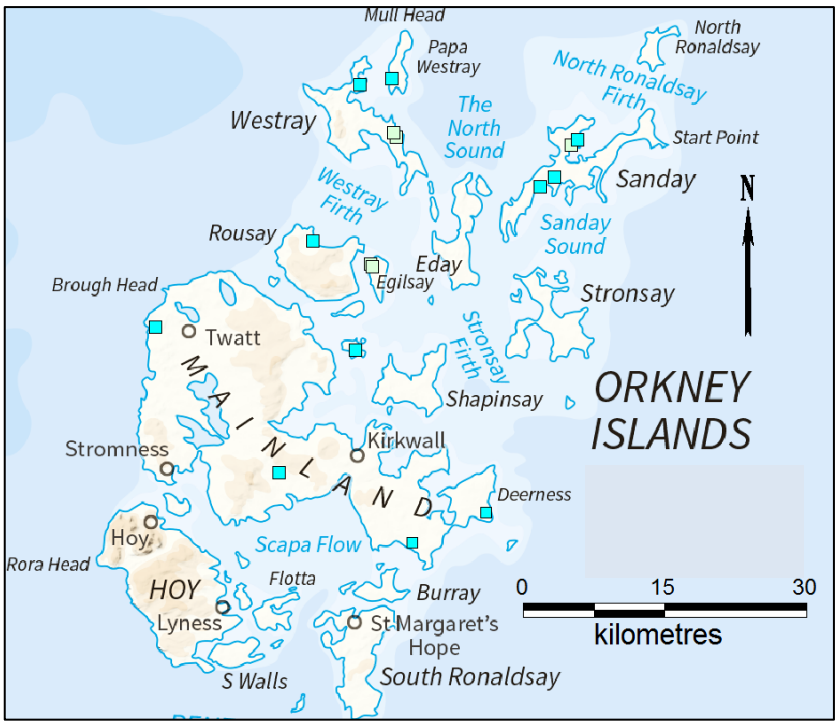

Fig. 8.05: blue squares mark other skaill place-names excluding Skaill and Langskaill sites.

Another grouping might be suggested, distinguishing Mainland, where most Skaill sites (five), and the only inland, loch-side skaill-sites are situated, from the other major islands – Sanday, Westray and Rousay – and the smaller islands – Egilsay, Papa Westray and Gairsay.[20] Mainland was perhaps where earls were most influential, and exercised control within the more formal structure of the earldom. The other major islands have one Skaill and one Langskaill site each (Rousay, Sanday and Westray), and were perhaps more influenced by powerful chieftains based there; while the smaller islands might represent the fiefdoms of more independently-minded individuals like Svein Asleifsson. There are hints perhaps of an organisational hierarchy, or at least distinction, in the roles of Skaills and Langskaills.

Islands and areas without skaill-names

One very interesting group of mound-linked sites may possibly help account for the lack of skaill place-names on Stronsay and South Ronaldsay, and fill in some of the gaps in an otherwise reasonably even distribution on prime agricultural coastal areas on other islands (Table 8.05; Fig. 8.06). These are

[20] North Ronaldsay interestingly has a number of un-investigated Sanday-style settlement mounds but no skaill-names.

the Cleat-sites: Cleat/Clett ON *klettr* (‘rocky eminence, isolated hillock, hill-nab’). Referring to the *klettr*-site on Sanday, classified by Raymond Lamb as a major farm-mound, it was noted the name ‘signifies the prominence of the mound’ (Davidson et al. 1983, 40). The farms with this mound-linked topographical place-name were not investigated as a group by William Thomson or Hugh Marwick. In Norway the settlement place-names with a topographical element, such as *vík*, *ness* or *dalr*, are argued to be the oldest, richest and more prestigious in the Viking-Late Norse period (Jennings and Kruse 2009). Whether that is the case or not, the *klettr*/Cleat topographical place-name is particularly interesting in the context of this study as denoting a form of prominent mound. None of the *klettr* place-name sites in Orkney actually sits on anything that could be described as a *rocky* eminence; the name Klettar in Papa Westray for a stretch of low, rocky coast is the nearest to fulfilling the ‘rocky outcrop’ description (Table 8.05, no.6). So we are left with the isolated and prominent hillock meaning. Putting Klettar to one side four of the six *klettr*-name settlements are large, old farms on settlement mounds (on St. Ola, Mainland; Westray, Sanday and Stronsay; nos 1 and 3-5, Table 8.05), all four are also close to reputedly old chapels, or reported to have such chapels in adjacent enclosures, and either coast-edge sites or within a few hundred metres of the coast. The settlement mound at Cleat (Westray; no. 5) was investigated with a small test-pit and produced Viking-Late Norse finds and a radiocarbon date of AD870-1280 (TO-6344) (Maleszka 2003). The settlement mound at Cleat (Stronsay) has reportedly produced building stone and limpet shells (no. 3, Table 8.05).

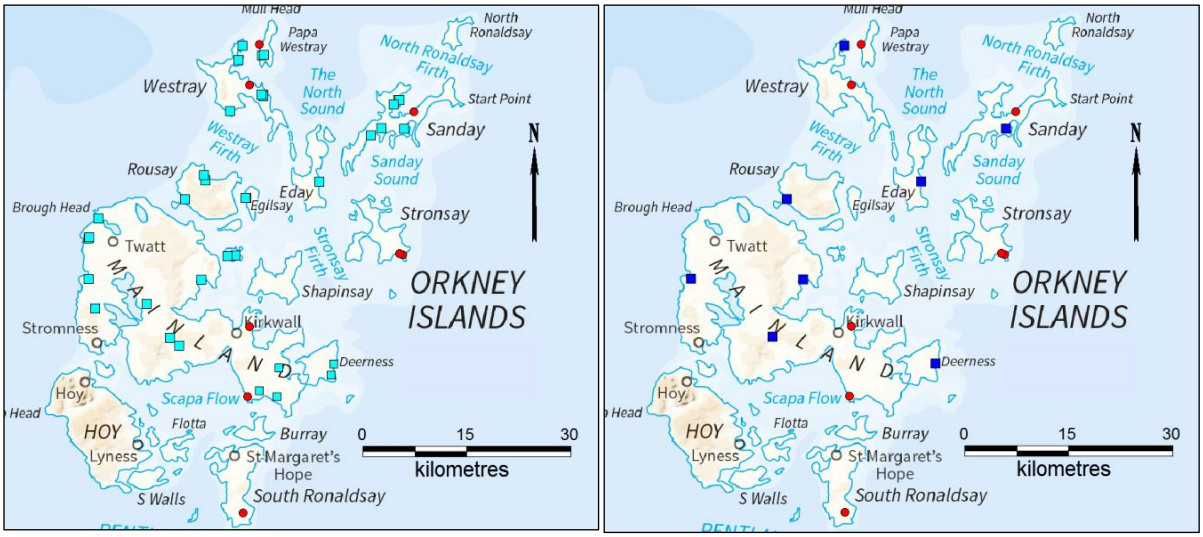

Fig. 8.06: the left-hand map shows all *skáli* place-names in light blue and *klettr*-names in red; the right-hand map *klettr*-names with Skaill place-names in dark blue.

The *klettr*-site, Cleat, at Holm (Mainland; no. 2) is less obviously on a mound and in general the coastal archaeology of the area is dominated and perhaps disrupted by twentieth-century war-time remains. The *klettr*-name on South Ronaldsay has applied to a group of farms since at least the First Edition 1982 Ordnance Survey map, and they are arranged on a prominent ridge close to the coast with the reputedly early chapel-site of St Colm not much more than a kilometre to the west (no. 7, Table 8.05). There was not time to investigate these sites in detail for this study, but they would certainly repay archaeological investigation in the future, combining as they do a mound-related name with prominent near-coastal sites in good agricultural locations.

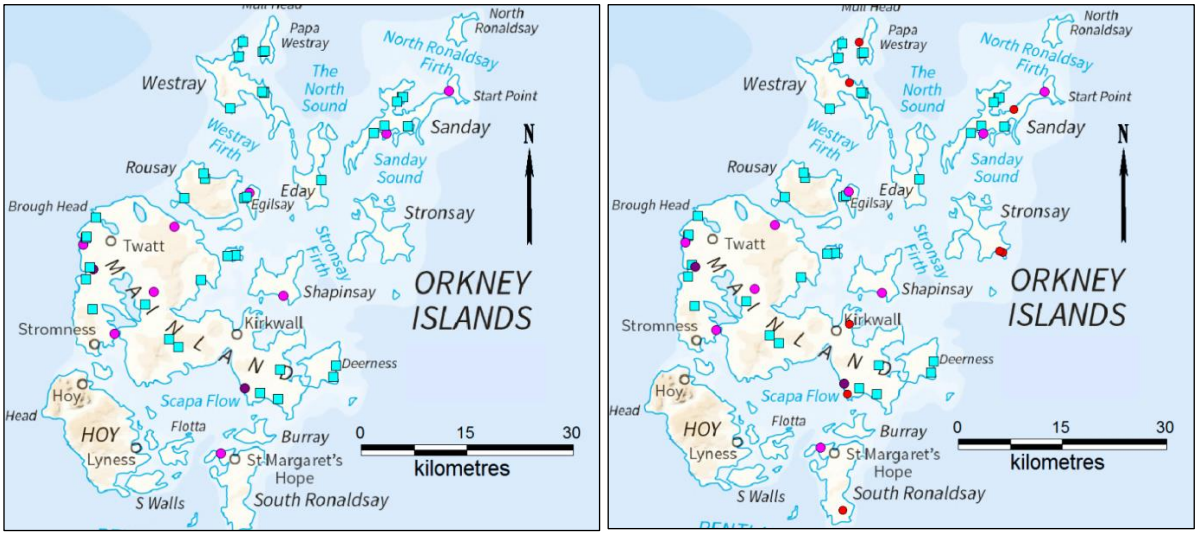

Fig 8.07: the left-hand map shows all *skáli* place-names in light blue squares and *haugr* ones in pink circles (the two purple circles are sites of uncertain location); the right-hand map adds *klettr*-names in red circles.

The other topographical place-name related to mounds is of course Howe ON *haugr* ('mound'). There are dozens of *haugr*-names that refer to brochs (such as Queena Howe on Westray and the Howe of Langskaill), to prehistoric barrows or burial cairns such as Maes Howe; but Hugh Marwick listed thirteen Howe *farm* place-names in *Orkney Farm-names* (Fig. 8.07).[21] Of those that could be mapped with confidence Howe (Marwick Bay) sits on a major settlement mound (pp. 102-3 above); Howe (Evie, Mainland) may also be on a settlement mound, and the remaining are prominently placed and

[21] Of those thirteen Rental farms recorded by Marwick the ones on Flotta and Westray can no longer be identified with any certainty and Holm (Rendall) was already disappeared. Howe in Sandwick is also listed as gone by Marwick but he describes it as in Housegarth tunship (1952, 152) which is just north-east of the excavated Skaill (Sandwick) settlement mounds. The remaining nine Howe-sites recorded are: two on Sanday; one each on Shapinsay, Egilsay, and South Ronaldsay; and on Mainland Orkney in the parishes of Holm, Evie, Harray and Birsay (Marwick 1952).

all coastal except for the Howe in Harray (Mainland). There is more near-correspondence in location between the *haugr*-names and *skáli*-names (Fig. 8.07), but the distribution of the former provides the first site on Shapinsay. (The lack of skaill-sites and Viking-Late Norse archaeology generally on Shapinsay may be partly a question of survival, as the island was one of the most radically affected by agricultural improvement in the nineteenth century.) With the addition of mound-related topographical place-names to the skaill place-name distribution Hoy is the only larger island without one of these sites. To Marwick's catalogue should also be added Sævar Howe on Birsay Bay (Mainland), a coastal settlement mound with Viking-Late Norse archaeology (see pp. 156-61 above). There may be others like this but again researching these in detail is beyond the scope of this present study. These *haugr* place-names hint at the possible locations of as yet un-investigated elements of the Viking-Late Norse settlement pattern.

Conclusion

The skaill-areas cannot be dismissed as locations defined by a "hut". The landscape contexts of the skaill place-name areas support their proposed role in the Viking-Late Norse period as central places in a *veizla* network: contexts appropriate for a feasting-hall and its associated buildings, rather than a minor temporary structure. Skaill-sites should rather be interpreted as indicating focal areas within a cultural framework, providing a suitably located space for meetings and exchanges. In siting a *skáli* it seemed building on top of, or close to, *pre*-Viking-Late Norse structures was not necessarily a fundamental pull-factor, but the inevitable result of choosing prominent mound locations in prime agricultural areas. However, re-building over previous Viking-Late Norse structures was more of a deliberate statement, advertising continuity and emphasising dominance and control over the local sea- and land-scape and community. The presence of prehistoric burial mounds in the surrounding area was probably evocative: bringing to mind the landscapes of the homelands.

Some of the skaill-areas have linked inland and coast-edge Viking-Late Norse mound-sites, for example: Tuquoy with Langskaill (Westray); Viking Houses with Langskaill (Marwick Bay); coastal-

sites on the Bay of Skaill with Skaill (Sandwick); and probably coastal-sites on Birsay Bay with Langskaill (Birsay), and the coastal-site in Skel Wick Bay (Westray) with a slightly inland site. These settlements may have been closely connected – in effect a dispersed village – the coastal-sites looking towards the sea, its resources and sailing-routes, and the inland site more concentrated on land-resources and networks, but both necessary to the full exercising of the *skáli*-role. These paired sites are all inter-visible and share a topographical and viewed area of exploitation. There may also have been some difference in the role of Skaills and Langskaills: Skaills more tightly bound into earldom arrangements; Langskaills, the 'long halls,' a little more independent and prioritising their local position and communal, including perhaps feasting, events. The distribution might also originally have been supplemented, and later blurred, by the remaining skaill place-names. In summary, Skaills and Langskaills were original (if not necessarily initial) and important settlements: slightly different in focus but connected. The other skaill-names were either linked parts of, or additions to, these core sites (hence the directional/referential names), or later divisions and namings.

A chronology for these sites cannot be established using place-names. Naming patterns also probably developed in slightly different ways and times in the various islands, and in any case those patterns must have consolidated alongside the emerging settlement arrangements. However, some names most probably did stop being produced after a certain date, including Langskaill and Skaill names as they appertained particularly to the chieftain-earldom lifestyle of mostly pre-twelfth-century Viking-Late Norse Orkney. Thomson proposed *skáli* did not survive the twelfth century as a meaningful, active element in the naming system as 'changing social conditions no longer required open halls and the feasting of military retinues' (2008b, 17).

Chapter Nine: The Scandinavian Settlement landscape: Halls, Mounds and Central Places

Introduction

The previous chapters have examined in detail the landscape location, architecture and place-name context of settlement mounds in the Viking-Late Norse landscapes of Orkney. Scandinavian groups arrived to settle those areas with ideas of how they wanted to inhabit the land and of the symbolism of mounds in the landscape: ideas generated in their places of origin, and possibly influenced by places visited on previous journeys. This chapter will consider the Scandinavian "homelands" from which the vast majority of settlers of Orkney probably came – perhaps over a relatively extended period – to help understand the ways in which they thought about the landscapes they were colonising. The aim is not to provide a comprehensive review of settlement in Scandinavia, but to emphasise evidence pertinent to an analysis of settlement mounds and the landscape messages conveyed by mounds in general. It will outline the character of settlement and focus on evidence for the nature, symbolism and role of mounds – and in particular settlement mounds – in the landscape from c. AD550 into the Viking Age.[1]

The exact places of origin of Scandinavian settlers of Orkney are unknown but proximity and the logic of sea-routes might suggest many originated from the northern and western coasts of Norway: Shetland and Orkney are the most likely first landfall for those setting sail from those areas (Fig. 9.01). Several strands of evidence support links with Norway. Artefacts imported from Norway such as steatite objects and whetstones are consistently found in the earlier phases of Viking-Late Norse settlements in Orkney (e.g. Hunter et al. 2007; Graham Campbell and Batey 1998, 25-36). *Orkneyinga saga* describes the Scandinavian take-over of Orkney as driven by the ambition of Norwegian king Haraldr *hárfagri* ('fine-hair'), and the earldom's relations with Norway run through the narrative (Pálsson and Edwards 1978). Inferences made from recent scientific analyses of the genetic make-up of the modern population of the Northern Isles do not contradict the contention that a good proportion

[1] The following period divisions will be used in discussing Scandinavian evidence: the Early Iron Age including the Migration Period c. AD 350-550; the Later Iron Age AD 550-1050, which includes the Merovingian c. AD550-800, and Viking Ages c. AD800-1050; and the Medieval Period c. AD1050 -1350.

of Viking Age incomers were from Norway (e.g. Goodacre et al. 2005). However, the detailed import of genetic studies of modern populations as proxies for historical ones remains extremely difficult to interpret (Jesch 2015, 34-5). “Danish” elements in the gene-pool are indistinguishable from “Anglo-Saxon” types, and the impact of subsequent immigration is as yet unquantifiable. Advances in the study of *historical* DNA may offer more clarity: one recent investigation of Norwegian samples revealed that, despite the already varied genetics of the Late Iron Age population, ‘Norse [Norwegian] women were important agents in the overseas expansion and settlement of the Vikings’ (Krzewińska et al. 2015, 1). To propose a Norwegian coastal origin for many of the settlers is therefore reasonable and this chapter will explore a range of mental templates that might have influenced their thinking about mounds in new settlement landscapes.

Focusing on the settlement mounds at the heart of this study inevitably brings to the fore the parallels that have been drawn between north Norwegian “farm-mounds” and settlement mounds in Orkney (Bertelsen 1979 etc.; see pp. 335-47 above). There are broad commonalities – overwhelmingly coastal, dispersed settlement in challenging environments, with sea-linked and broad-based economies – but this applies equally to western and north-western Norwegian coasts. Any correspondences between settlement mounds in Orkney and Norway cannot be explained by replicated environmental context: Orkney is more suited to arable farming, with a more temperate climate. Indeed, both the coastal landscapes of Norway and those of Orkney were regionally and locally varied (Crawford 1995b; Jones and Olwig 2008). This environmental variety, which provided different ranges of resources, is part of the explanation for the ways settlement mounds varied geographically during the Viking Age, with turf the main building material in northern Norway and stone dominating in Orkney. This chapter will also demonstrate that practices intrinsic to settlement mound construction and living were *not* limited to the “farm-mound” area. Evidence from Norwegian coastal areas will be highlighted, but mound-linked settlement themes from across the Scandinavian regions will be explored to illustrate a wider, shared cultural perspective on landscape and settlement, and obviate the need to pinpoint places of origin for the arrivals in Orkney. That perspective encompassed a suite of mound-linked approaches to representing power and social structure in landscape, including: visually-dominant halls associated

with physical expressions of status; principal longhouses remaining in precisely fixed locations despite frequent reconstruction; earlier monuments – in particular burial mounds – and features being widely referenced in mound landscapes; and an emphasis on superimposition and the symbolism of organic material.

Fig. 9.01: map showing routes of Viking expansion after Krzewińska et al. 2015, 2.The additional red arrow suggests another likely route.

The literature on settlement in Scandinavia

There are difficulties with the settlement evidence in Scandinavia for the crucial period – the eighth-tenth centuries – during which the settlement of the Northern Isles was accomplished. Compared with the preceding and following periods relatively few settlement sites in north, west and south-west Norway have been investigated, many excavations are not recent and/or of small areas (Magnus 2002; Myhre 2003; Urbańczyk 1992). Bjørn Myhre noted as a major problem that so few important farms or farms generally had been found from the Viking Age (1998). Only in Denmark have extensive excavations been conducted of villages and rural settlement, and these have focused on settlement form and building typology (Hamerow 2002; Sawyer and Sawyer 1993). However, as will be demonstrated, there is some evidence from those larger-scale excavations, and from more recently-

investigated sites beyond Denmark, which illuminates the wide-spread persistence of certain ways of constructing mound-related power in the landscape.

The general approach to, and character of, much of the archaeology in the area for the whole period c. AD550-1050 has compounded the problem of lack of evidence for the Viking Age, especially for an researcher hoping to link micro- to macro-evidence by relating detailed stratigraphical analysis to landscape-wide contextual study. Very few settlements have been excavated in the context of a landscape investigation, or have included middens *and* phases of building (Hamerow 2002; Urbańczyk 1992). However, recently published excavations with detailed reports on the stratigraphy of settlement and other mounds, and/or setting sites within their cultural landscapes, give sufficient new material to suggest the rich potential for future comparison, and provide enough evidence to take the argument of this thesis forward.[2] There are sufficient general studies providing a broad picture of Norwegian Late Iron Age settlement to support this growing corpus of new or recently-published sites.[3]

Despite regional variety and changes over time in the higher-status elements of the Scandinavian Iron Age outlined below, farmsteads remained the essential constituent of the settlement landscape (Fallgren 2008, 2), and each farm was constructed around a longhouse (Magnus 2002). The longhouse form, varying in its detail, was found across Scandinavia and the Viking diaspora: this widespread template only emphasising that some shared cultural ideas underpinned the way buildings were constructed (Herschend 1993; Roesdahl 2009). All longhouses included a relatively open hall element suitable for gathering; some comprised just the hall-chamber, while others included a hall, byre and other annexes (Stoklund 1984). The significance of the hall is discussed below.

[2] For example the monographs on: Kaupang and its associated settlement and funerary landscape (Skre 2007); on the *tunanlegg* (Grimm 2010); on Gudme-Lundeborg in Funen (Hedeager 2015); Uppåkra in Skåne (Larsson 2007) and Borg in Lofoten (Munch 2003).
[3] Helena Hamerow provides a useful overview of settlement evidence, and in so doing underlines how much more evidence there is for Denmark (2002), and Urbańczyk has reviewed the evidence for northern Norway (1992). See also Poulsen and Sindbæk (2011a) for more recent studies.

The coastal settlement of western and northern Norway in the Late Iron Age was dominated by dispersed farmsteads. These might comprise a single main longhouse and associated out-buildings, boundaries, paths, fields and burial mounds, or a similar landscape created by two or three loosely clustered farmsteads, such as Lurekalven in Nordhordland, western Norway (Magnus 2002, 21). In southern Scandinavia and in particular Denmark there is more evidence for tighter grouping of buildings to create hamlets or even villages, for example Forsand in south-west Norway (Grimm 2010). The large-area strip-excavations in Denmark revealed bigger, more structured villages. The classic site is Vorbasse, one of the so-called *Wandersiedlungen* or wandering settlements, which shifted slowly in the landscape as many, but not all, of the buildings were rebuilt in *new* locations – each shift perhaps marking the passing of a generation (Hamerow 2002). While southern Scandinavia was, from AD800, increasingly structured around proto-urban trading and production centres like Birka, Hedeby, Kaupang and Ribe, change happened more slowly in the north. There the nature of settlement remained fairly constant, dominated by single farmsteads distributed along the narrow coastal terraces of the islands in particular. However, at all levels of society there were larger farms, or principal buildings associated with higher-status artefacts: such buildings seemed to have been a '*normal* ingredient of both [socially] prominent places and ordinary settlements in the Viking period' (Poulsen and Sindbæk, 2011b, 28). This settlement pattern expressed local and regional hierarchies.

Older and contemporary burial mounds were integral to these landscapes and until the 1960s archaeological attention in Scandinavia was very much focused on burials, producing a great quantity of evidence. This ranges from large cemeteries such as Kaupang and Børre, and incredibly well-furnished ship and mound burials especially in the south, alongside more modestly equipped interments and cremations (Price 2010). The rich variety of burial tradition also suggests that, until the more wide-spread development of royal power into the eleventh century, northern and western Norway in particular was dominated by localised petty chiefdoms (Hedeager 2011). Burial evidence thus demonstrated several important things about the nature of society: emphasising the coastal distribution of settlement; the extent of trade and exchange links; and the hierarchical and regionalised nature of society. Burial *mounds* are also relevant as revealing the rich vein of potential symbolism

linked to people-created – manufactured – mounds. Work focused on the relationship between burial mounds and settlement organisation has argued that Late Iron Age burial mounds marked farmstead boundaries, creating a link with ancestors and signalling the family right to exploit the associated land (Myhre 2000; Skre 2001, 10). Other more recent research has explored the symbolic potency of burial mounds further, with interesting results, in particular: Eva Thäte's monograph on the re-use of mounds and monuments for burial (2007), Terje Gansum and Terje Oestigaard's work on the mounds at Tønsberg (2004), and Neil Price's re-analysis of Scandinavian burial evidence (2010; see below). In a hierarchical society such symbols were important, even more so when competition for position and status intensified.

Late Iron Age Scandinavia, the Social Context: competition and power in the landscape

In Late Iron Age Scandinavia and Orkney power was exercised, with local variations, within a broadly similar social structure. That structure was hierarchical and magnate-led, characterised by shifting personal relations reliant on the support of retinues (Storli 2010, 140). Political power was constructed around ties of kinship, honour and reciprocal obligation, negotiated and affirmed during public assemblies (Price 2000, 39; Poulsen and Sindbæk 2011a) These personal power networks were also potentially unstable creating a constant need to 'mark and legitimise power and status' (Jørgensen 2000, 75; Skre 2011). Expressions of status needed to be rendered visible and physical: conveyed through generous gifts, the display of elite goods, and large feasting-halls, but also sign-posted in the landscape. Late Iron Age leaders at all levels needed to 'organise and dominate the landscape so their settlements and burial mounds expressed legitimacy, hierarchy and power' (Magnus 2002, 6). Lotte Hedeager argued that such landscapes, often described as "Central Place" complexes and discussed further below, were intrinsically symbolic, referencing a potent 'cosmological structure' (2011, 150). As will be seen, mounds were built into these complexes in a range of ways.

This social framework was also under pressure. The previous Migration Period in Scandinavia (c. AD350–550) had seen the gradual consolidation of power into fewer hands, perhaps especially in the

more fertile south and the far northern, resource-rich Lofoten Islands. In southern Sweden (Skåne and the Mälaren region) and southern Scandinavia more generally, major, strategic Central Place complexes had been founded, such as the site of Gudme in Funen, including a conspicuously-sited large hall, with nearby coastal trading and production site (Lundeborg), and Tissø in Zealand also featuring a visually-dominant, prestigious hall notable for imports and precious metal finds (Magnus 2002; Jørgensen 2003, 2008). In south-western and northern Norway "Courtyard" or *tunanlegg* sites developed as assembly sites, located at communication nodes for the surrounding area (Grimm 2010: Storli 2006, 2010). As Viking-Late Norse raiders and traders expanded their sphere of operations, trade increased, along with influences from outside Scandinavia, creating more potential for change. The period from c. AD800 seems to have been marked by fiercer competition for power and more dynamic hierarchies. In this more volatile environment in Viking Age Norway the rise in numbers of burial mounds used to mark land boundaries appeared symptomatic of increased vying for status and resources (Jørgensen 2000, 79; Skre 2001). In southern Scandinavia royal power became more closely bound to emerging trade and production sites such as Birka, Hedeby and Kaupang, while high-status, hall-focused settlements continued (Skre 2011). Enormous burial mounds were constructed including the 'colossal landscape sculptures' at Jelling in Denmark (Sawyer 2003, 145). In northern Norway more large, visually-dominant magnate-farms such as Borg in Lofoten were constructed (Munch et al. 2003). Leaders jostling for status in Late Iron Age Scandinavia were under pressure to keep affirming their hold over people and resources, much as Viking-Late Norse settlers arriving in Orkney would need symbolically to demonstrate their control of land. In both circumstances an appropriate public meeting place in a suitable setting was essential. Such assembly sites might be indoors in halls/ longhouses, or outdoors at *tunanlegg* or *thing* sites. The idea of these locations as Central Places incorporates both the meeting place and the surrounding cultural landscape.

Central Places

The idea of centrality has informed the discussion of a great number of Scandinavian sites and landscapes. It is a slippery concept precisely because it has come to embrace composite and multi-

functional sites within cultural landscapes.[4] Central Place theory in the context of Late Iron Age Scandinavia has broken out of the Christaller archetype to become more dynamic and subtle (Grimm 2010, 14-27; see p. 42-3 above). Thus Early-Late Iron Age sites interpreted as Central Places are broadly sites somehow dominant, linked with locally, or more widely, powerful people and notable for some or all of the following aspects: large or unusual structures, especially halls; highly-visible and strategic locations; high-status artefact content and association with hoards, burial mounds, *thing* sites, and place-names suggesting sacred locations in the surrounding landscape (Hedeager 2011; Skre 2011). These sites might fulfil social, economic, political or ritual/cultic functions for the community inhabiting that landscape (Fabech and Ringtved 1999; Grimm 2010). The central buildings were central*ising*, bringing together people to exercise or submit to authority, as well as focal spaces physically suited to juridical, decision-making and social events (Herschend 1993). The idea of a composite Central Place area which linked landscape and central buildings is especially relevant to this thesis (Hedeager 2011, 148-63). Also important is the emphasis on a *hierarchy* of central places from a huge site such as Gudme-Lundeborg with a regional pull, through to the principal farm in a cluster of farmsteads as at Vorbasse (Brink 1996). Not every place necessarily covered all the possible functions and indeed the significance of a site could wax and wane with the comings-and-goings of peripatetic magnates, local leaders and their retinues.

The Hall

The longhouse/hall was the crucial element in many Central Places: the 'importance of the hall for meetings…cannot be over-estimated' (Grimm 2010, 27). The Viking Age hall was 'splendidly suited to formal performances', a place of drama, poetry, judgement and feasting (Roesdahl 2009, 272). 'The structure of local power was related physically to the great halls as the locus where patrons feasted their clients' (Poulsen and Sindbæk 2011b, 27). They were spaces appropriate to public decision-making and the enactment of social power, 'rife with manifestations of hierarchy' (Herschend 1993; Sørensen 2003; Zori et al 2013, 152). Bjarne Stoklund described the halls as presented in the sagas as

[4] For more about Central Place theory see Fabech and Ringtved 1999; Grimm 2010, and Hedeager 2011.

‘permeated by cultural significance’: revealed as flexible spaces, but spaces governed by rules according to each purpose served (1984, 100-1).

Interestingly, Lotte Hedeager interpreted the hall-building as a symbol of ‘stability as well as leadership’ (2011, 147). As will be seen, any stability represented by the physicality and scale of the actual building was emphasised by the repeated, effort-full rebuilding of such longhouses/halls in precisely the same, typically elevated, location. However, there is a conundrum linked to the hall-name which echoes the problems with the *skáli*-name. Given the prominence of the hall in Old Norse literature, ideology and settlement ‘it is remarkable that the word “hall” [*hǫll*] hardly ever occurs’ in Scandinavian place-names’ (Brink 2007 and 2008; Hedeager 2011, 147). Stefan Brink, who has investigated place-names associated with hall Central Place complexes, argued the -*sal* element was used instead in Scandinavia. This element is understood as meaning feasting-hall – as found for example in *Skiringssal* and Uppsala (Brink 2008). But what is especially interesting about this is that, as with *skáli* (the Old West Norse equivalent), -*sal* was earlier interpreted as meaning a much lower order of building or shieling (ibid.). This is perhaps further indication of the changes that might be wrought in social practice, including naming-practices, as context altered.

Examples of a range of settlement-related Central Places will now be examined to consider whether practices encountered in Orcadian settlement mounds were drawing on ideas from the “homelands”. *Tunanlegg* sites and halls in prominent locations will be surveyed. Burial mounds and – briefly – thing-sites will then be considered as components of a mound-rich Central Place landscape and as further examples of the potency of mounds as landscape symbols.

Tunanlegg Sites

The *tunanlegg* sites of south-west and northern Norway, of which 25 are known, were gathering places at their peak in the period around AD500 (Grimm 2010; Fig. 9.02). In south-west Norway most were in use during the first half of the first-millennium, while those in the west and north continued

into the middle centuries of the millennium (Storli 2010). They were built as clusters of temporary housing for groups of people, accessibly-located often near significant magnate-farms, high-status burial mounds and, especially in northern Norway, close to boat houses designed for larger ships suited to raiding, trading and settling (Berglund 1997; Storli 2006: Fig 9.03).[5] Several have been excavated, and the second largest island in the Lofoten Islands, Vestvagøy, with three *tunanlegg*, has been investigated thoroughly as a landscape (Munch et al. 2003; Storli 2010). Two of the Vestvagøy *tunanlegg* were associated with the chieftain-farms of Borg and Bøstad; all three sites were also at strategic locations near passages through islands, near burial mound cemeteries and large boat nausts.

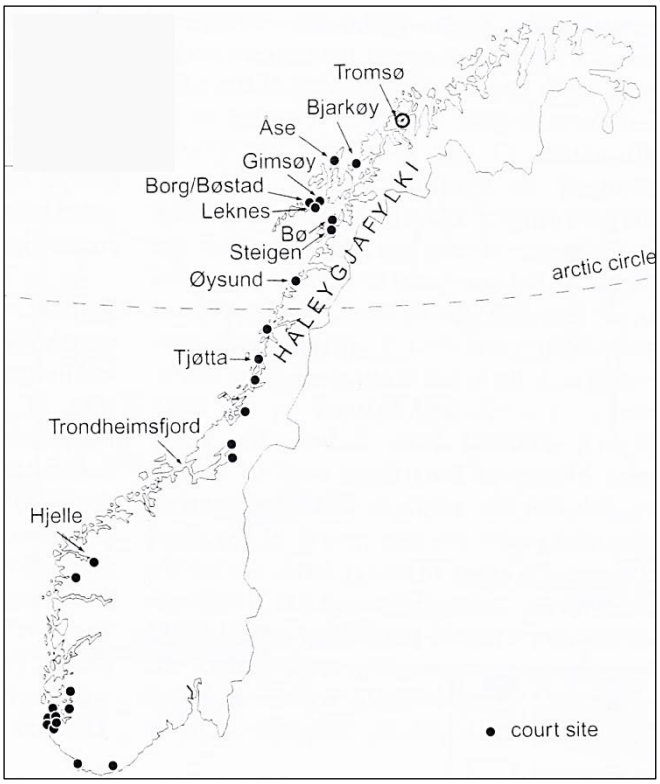

Fig. 9.02: the location of *tunanlegg* sites in Norway, from Storli 2010, 130.

Tunanlegg were regionally, even chronologically, variable but those that have been more closely studied share some interesting characteristics. Oliver Grimm focused on the *tunanlegg* of south-west Norway (in Jæren south of Stavanger), observing that the sites were not permanently occupied, so the houses were regularly rebuilt, and always in the same location, creating strata of turf walls and deeply-layered organic floors, rich in domestic midden-type material (2010, 31-7). Small mounds were also

[5] The element of temporary housing is an interesting parallel to the argument of this thesis that the meaning of *skáli* in Orkney may be linked to an idea of providing such accommodation.

incorporated into the layout, often in the centre of the arrangement of buildings and/or built over earlier features. Some of the mounds pre-existed the sites, while others – notably the central mounds – appeared to have been raised during their active use. None of those "new" mounds contained burials. The central mound at Klauhauane was built over the remains of a small square building, and other mounds contained debris from hearths and food preparation – in other words midden-type material (Grimm 2010, ch. 4). The sites have been interpreted as places where a local chief might meet, entertain and house visiting leaders and their entourages. The nature of those meetings has been much debated: were they of men of similar status – precursors of the *thing* assemblies, as Storli has suggested for the northern sites (2006 and 2010), or assemblies under the control of local elites and thus arenas for publically demonstrating rather than debating authority (Grimm 2010)? There was a decline in numbers after around AD600 but Inger Storli notes that the northern *tunanlegg* sites, persisting into the beginnings of the Viking period, were those that held particularly dominant landscape positions. She suggests in the context of intensifying power struggles this may have been, 'a way of drawing attention to an emerging elite and giving it legitimacy' (Storli 2010, 138–9).

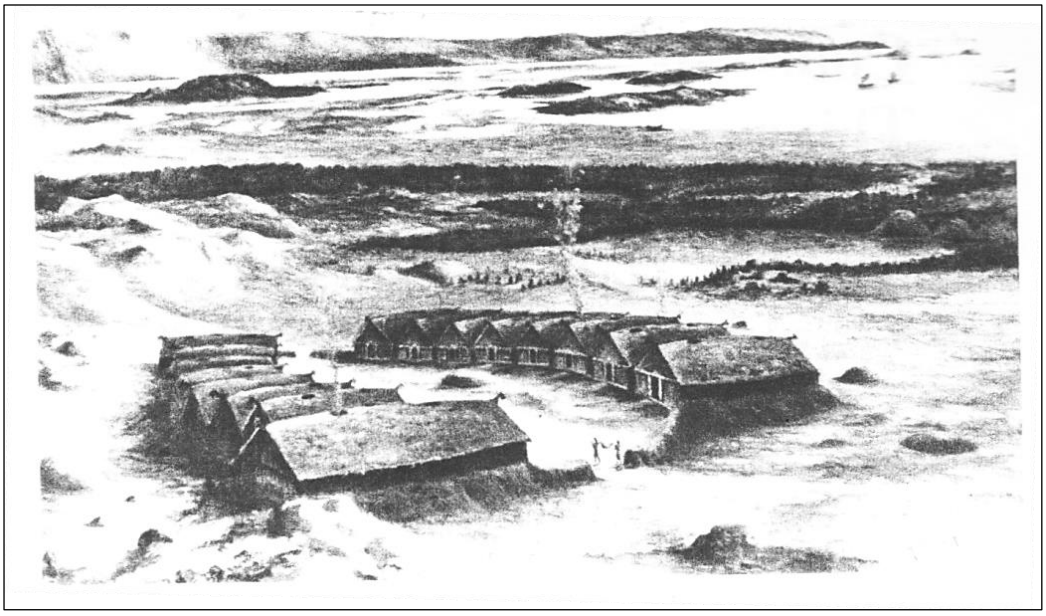

Fig. 9.03: artist's impression of the *tunanlegg* site at Steigen (A. Reinert), from Storli 2010, 129.

The *tunanlegg* thus present interesting characteristics. They were prominent, strategic meeting-places fulfilling Central Place and hospitality functions, referencing earlier mounds and incorporating new

mounds, with houses were rebuilt in the same location and deliberate use made of midden-type material in constructing the buildings and mounds.

Central Place high-status halls

Central Places like Gudme-Lundeborg on Funen, built on an eminence and constructed around a great feasting-hall, were long-lived features in the Scandinavian landscape. The most splendid were in southern Scandinavia and notably enduring. Power centres like Gudme-Lundeborg, Lejre and Tissø in Sjæland, and Uppåkra in Skåne were exceptionally large, rich in exotic artefacts and/or spanned centuries: Uppåkra for example was in use for the whole first-millennium (Nielsen et al. 1994; Larsson 2002; Jørgensen 2003).

Gudme has often been cited as the Central Place *par excellence* with its 50m-long hall and quantity of gold finds and jewellery (Jørgensen 1994; Hedeager 2011). The surrounding landscape produced an exceptional number of gold-containing hoards and a number of place-names with sacred connotations. However, other sites – less exceptional perhaps – display characteristics more relevant to this study. At Lejre in Sjæland the visually-dominant, central longhouse, with a large hall-room, in use from c. AD600-1000, had been 'rebuilt and rebuilt on the same spot over centuries' (Poulsen and Sindbæk 2011b, 8). The same occurred at Uppåkra in Skåne (second-tenth centuries), where the hall interpreted as a "cult building" was not only located at the highest part of the ridge on which the complex was constructed, but was also rebuilt several times in exactly the same place and so was 'especially stable' (Larsson 2007, 22). This building was also associated with flattened burial mounds and ritual deposits.

The locational stability of the most significant building in a settlement, achieved by rebuilding on exactly the same spot and incorporating parts of the preceding building into its successor, was a very important aspect of these sites. This theme played down the social scale. The tendency to rebuild in the same place – "localisation" – was discovered at sites like Nørre Snede in Jutland, and Stauran in Troms in the north (Urbańczyk 1992). Although the characteristic settlement shift of villages of

Southern Scandinavia was noted above, there were interesting exceptions to this "wandering". Frans Herschend wrote of principal buildings in farmsteads and villages in the Late Iron Age Mällar Valley, Sweden that: '*stability* and status seem to have been interdependent' (1993, 186; my italics). Similarly in the archetypal wandering village – Vorbasse – the largest and highest-status longhouse among the farms unlike its neighbours 'rested in more or less the same location through ten generations' (Magnus 2002, 12). The long 'chieftain' farmhouse in Forsand south-east of Stavanger was rebuilt in the same location and dominated a village of 12-16 contemporary dwellings, whose arrangement was more shifting (Grimm 2010, 27).

The major components of the landscape of power associated with the proto-urban trading and craft site of Kaupang in Vestfold (developed in the late-eighth century), included extensive cemeteries, a high-status hall on a hillock (*Skiringssal*) one kilometre north of Kaupang, and close to the site of the later church,[6] a *thing* site, and a hill and lake with sacred place-names (Skre 2007, 14). The hall (eighth-tenth centuries), perched on a natural rocky hillock, was built over flattened earlier Iron Age barrows. In order to positon the hall securely on the prominent summit a substantial soil and stone building platform had been constructed: the excavators calculated the platform would have required 300 man-days to assemble (Skre 2007, 228). These foundations ensured the hall dominated the surrounding landscape, but at the expense of considerable effort. Several halls at Uppåkra in Skåne also relied on stone house-platforms to secure their prominent ridge-top location (ibid. 230; Larsson 2007). These characteristics have been discovered at other less high-status Central Places: minor magnate farms providing some central function for, or exercising some authority over, surrounding communities. An otherwise unexceptional building in Alby, interpreted as a venue for feasting, was raised on a considerable stone terrace to ensure its visual dominance (Hjulström et al. 2008). A substantial row of stones was built 'to keep the layers in place at the point where the slope was steepest' (ibid. 63).

[6] The *Skiringssal* site was in the Medieval period called Huseby (a farm acting as an administrative centre): the original *-sal* name had by then become the region's name.

The huge superimposed halls of Borg in Lofoten were found with exotic artefacts, including tiny gold foils, glass and imported pottery suggesting a place of considerable local status. The first hall at Borg, 64 m long, was built in the sixth century over two early Iron Age burials (Munch et al. 2003). That hall was then substantially integrated into an exceptionally long hall built in the eighth century. The builders clearly set out to overlay the centre of the new 84m-long building exactly on the centre of the preceding building, both emphasising the elevated position and retaining precisely the same location. Once again this demanded extra investment of effort as a considerable rubble platform was laid to keep the heart of the longer building over that of the preceding hall (ibid. 47-53; Fig. 9.04). Meulengracht Sørensen described hall-buildings as manifestations of time and lineage, illustrated at Borg 'where building strata continuously replace one another on the same site' (2003, 273).

Fig. 9.04: the stone building platform for the hall at Borg, from Munch et al. 2003, 49.

The principal halls in Central Place complexes were visually dominant – built on large hillocks or on the high point of ridges – but also rebuilt several times in the same location, even if that complicated the construction process. In some cases the first hall in a sequence may also have been purposefully built over older significant features – usually burial mounds. Locational stability seems to have applied to central longhouses throughout the settlement hierarchy. The higher-status Central Place complexes also encompassed ritual deposition and may have referenced existing mounds in the landscape.

Burial Mounds

Burial mounds monumentalised important ancestors and have therefore been interpreted as acting as a physical legitimation of either land rights or social power (McLeod 2015; Myhre 2000). They made visible a farmer's right to the surrounding land's resources, and were also evident symbols of belonging and social status. Viking burial mounds on the Isle of Man have been described as the 'land charters of illiterate men' (Fletcher and Reilly 1988, 97). It is not surprising that in the landscapes of Central Places, the locations of principal halls often seemed to reference burial mounds.[7]

However, the symbolism associated with burial mounds may have been more complex and dynamic, bound up with *process* in a way that parallels the narrative of construction forming Orcadian settlement mounds. The trading and craft site of Kaupang, mentioned above, was associated with extensive cemeteries and Neil Price re-examined evidence from the burials to investigate the process of interring the dead (2010). He argued that elaborate, often lengthy mortuary ritual played out over several "acts" wove strong links between ancestors' lives and mounds raised in the cemetery landscape. The mortuary narrative was a process – a 'materialised narrative' – often brought to completion with the raising of the mound as a physical reminder and encapsulation of all the activities and people involved (ibid. 147). Furthermore, Price highlighted several burials in which later graves were positioned – clearly deliberately – directly over earlier inhumations. This positioning – deliberate superimposition – physically reiterated links with significant predecessors and was perhaps intended to symbolise the inheritance of social position. Direct physical association, the creation of chronological depth and re-use – as with rebuilt houses – reinforced the continued holding of status, permanence of place and generational succession.

Eva Thäte studied the frequent re-use of burial mounds from earlier periods for additional burials in Viking Age Scandinavia, suggesting the practice legitimated land-holding through association with the significant dead (Thäte 2007). The majority of this re-use was to insert new male burials into existing

[7] It is possible that in Orkney the burial mounds in the landscape surrounding skaill-sites were incorporated in the settlers' landscape organisation by being used as markers of fields and grazing areas.

mounds. Thäte, briefly reviewing the small burial sample from Orkney, noted that, in a variation on the idiom, re-use of existing constructions for burial took on a different guise there. Viking-Late Norse groups would "re-use", not existing burial mounds, but earlier and abandoned *settlement* or midden mounds, occasionally even burying into still-accumulating midden-heaps (Thäte 2007, 120–127; see pp. 40 and 150 above).[8] There is the same creation of physical association and continuity but the emphasis is different. This establishes a thought-provoking link between the symbolism of re-use/ referencing in burial practice, and the re-use/re-building integral to settlement mound creation. Legitimation in the Orkney context was focused on the use of abandoned/active *settlement*-sites for both burial and building (Harrison 2007).

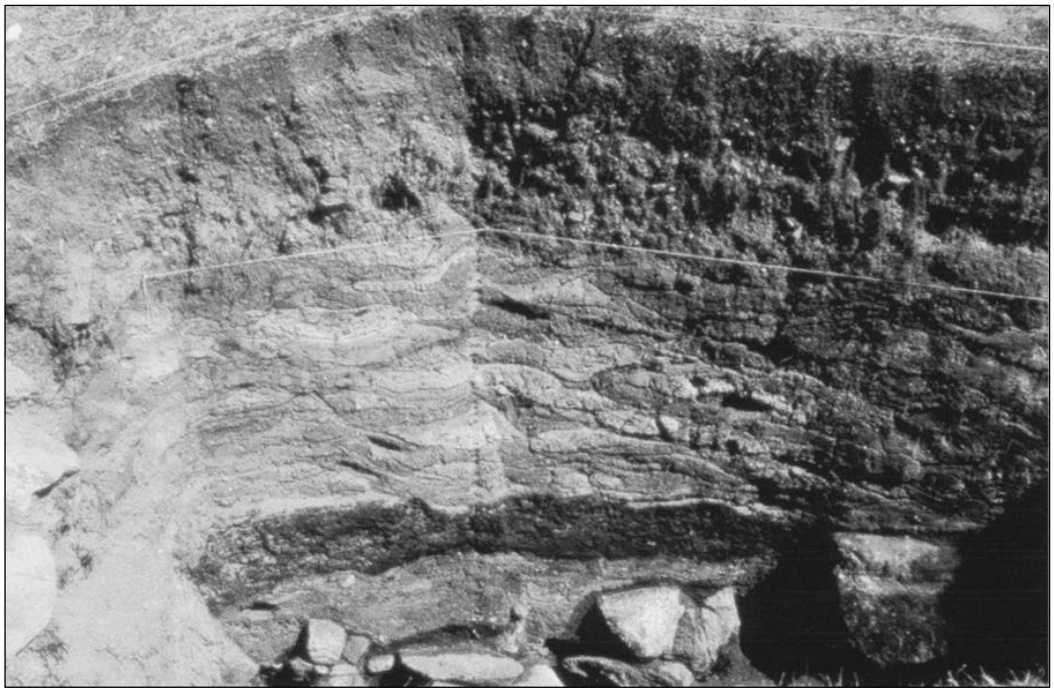

Fig. 9.05: turf and charcoal layers in one of the Tønsberg mounds, from Gansum and Oestigaard 2004, 67.

The significance of the *process* of building mounds, and of the everyday materials used in making them, was demonstrated at a site in Norway, where excavation detailed the deep stratigraphy and composition of purported burial mounds. Terje Gansum and Terje Oestigaard studied two supposed burial mounds at Haugar in Tønsberg (2004; Fig 9.05). The thirteenth-century historian Snorri

[8] For example in abandoned settlement on mounds at Buckquoy, Sævar Howe and Oxtro Broch; and in midden, probably also part of a settlement mound, at Brough Road and the Bay of Skaill (Harrison 2007; Hedges 1983; McLeod 2015; Morris 1989, 1996; Ritchie 1977).

Sturluson had claimed the huge mounds as the burial places of the sons of Harald 'Finehair' (c. AD860-940), the king especially important in Scandinavian tradition as the first to claim authority over "all" Norway. The mounds, so prominent that Snorri had felt justified in linking them to Harald, were discovered to be huge cenotaphs: their heaped bulk alone had been sufficient for them to acquire consequence as status-symbols. However, the mounds' size was found to be only part of their significance. Examination of complex layers within the mounds revealed that their construction in the ninth century had involved the manufacture, transportation and spreading of vast quantities of charcoal supplemented by soil and turf. All the organic material had been brought to the mounds from *different* parts of Tønsberg. Considerable organisational authority must have been exercised to co-ordinate people from across the surrounding area in contributing to that construction process. The soil and turf may have represented the bringing together under one leader of the various groups whose land was indicated by the material, and the charcoal the fires of hospitality and feasting. In this instance the significance of the *process* of building and the reliance on, and symbolism of, organic material in everyday use closely echoes the construction of settlement mounds in Orkney.

Thing-mounds

Mounds have been most obviously associated with formal law-giving and administrative assemblies at *thing*-sites, where they marked the physical gathering-point (Semple and Sanmark 2010 and 2013). *thing*-sites could be elements in extensive Central Place landscapes, as at Kaupang, but in the later Viking Age they were not necessarily tied to individual focal settlements. However, *thing*-mounds further underline the powerful resonance of the mound-shape in signalling important meeting places. Alexandra Sanmark and Sarah Semple conducted new fieldwork in Sweden and England which indicated that while assembly sites often '"re-used" locations marked by 'palimpsests of ancient remains', including burial mounds, meeting-places were also 'newly monumentalised' by constructing *new* mounds and standing stones (2008, 245). A 'created past' (ibid. 256) was being manufactured and the people-built, mound-shape was evocative of appropriate messages whether or not it contained past buildings or burials.

Orkney has only two *thing*-sites as indicated by place-names – Dingieshowe (East Mainland) and Tingwall (West Mainland) – both also marked by mounds. Some *thing* place-names may have been lost, but the lack of other names suggests that other places had taken on *thing*-site functions in Orkney.

Farm-mounds

Although it is apparent that locational stability – rebuilding on the same spot – was characteristic of principal buildings across settlement types in the Scandinavian Late Iron Age, the most complete examples of this were perhaps the "farm-mounds" of northern Norway. They are also the settlement form that has been regarded as most closely analogous to the Orkney settlement mounds, with their "tell-like" layering of turf building material and superimposition of accumulated midden-type material to create the mound (Bertelsen 1979; Holm-Olsen 1980; Urbánczyk 1992, 105-121).

As discussed (pp. 335 ff. above) no convincing *practical* argument has been offered for why these building practices were followed in northern Norway, and not enough have been excavated extensively enough to present a satisfactory range of explanations.[9] Although dating the mounds is problematic, a proportion of them actually appear to originate after the Viking Age, around AD1100. At that time churches were taking over the representation of religious authority, and power over land was increasingly exercised in more administrative ways. Mounds originating in this later period may therefore have been created as landscape features to mark a very local and non-religious or ritual authority (Berglund 1997, 2002). A powerful local farmer was using established idioms – visibility, locational stability and superimposition, as well as re-use of organic materials – to emphasise a family's control of the immediately surrounding area and the chronological depth of those rights.

In fact the few mounds that have been dated indicate this was a very long-lived phenomenon, with some mounds clearly multi-period and beginning as early as 900BC, and others continuing to form into the nineteenth century (Bertlesen 1979). There was a long-established tendency in these coastal

[9] Mook and Bertelsen did suggest that living on mounds rich in gradually decaying material helped raise the temperature inside the farm (2007).

areas ‘to live in the same place for a long time’ (Berglund 1997, 141).Very few Iron Age farms have been found in northern Norway and it has been argued that some of these elusive farmsteads are encompassed within – perhaps form the foundations of – several of the 60-plus farm-mounds recorded there (Holm-Olsen 1988, 68; Fig. 9.06). What this indicates, for the purposes of this research, is that Viking-Late Norse settlers from these areas were familiar with the idea of mounded settlement, and especially with the use of organic material in constructing them.

Fig. 9.06: the farm-mound at Kvaløya, Northern Norway.

Conclusion

This review has demonstrated how mound-linked settlement practices were powerful, physical expressions of social structure and standing. Most interestingly there is evidence of the particular importance of locational stability, and therefore complex layering and superimposition, and of the use and symbolism of organic material. People-built mounds – or features perceived as such – were significant; and the fact and process of their building, and the midden-type material used in construction, could be as evocative as links with burials, objects and structures. Much more work could be done to explore these themes in Scandinavian archaeology, but that is beyond the scope of this study.

Chapter Ten: Settlement mounds in the Viking Diaspora

Did the mound-focused settlement and mound-related building techniques with roots in Scandinavia and elaborated in Orkney translate into other areas of the North Atlantic Viking diaspora settlement? A detailed mound landscape analysis of the whole region is far beyond the scope of this present research, but this chapter will look for initial answers to the following questions. Are the culturally-charged practices like those recorded here for Orkney, including the repeated rebuilding of structures in a highly-visible location, the referencing of previous buildings and extensive use of midden-type material, demonstrated elsewhere? Is there evidence to indicate if, and how, settlement mounds varied in character across the Viking diaspora? The information available inevitably depends partly on the history of archaeological investigation and the directions of research enquiry in each country, and while some interim conclusions can be suggested, more detailed work could profitably be done on comparing settlement mounds across the wider North Atlantic.[1]

Shetland

Introduction

This section will focus on the relevant aspects of the relatively few excavated Viking-Late Norse sites in Shetland to discover how mound-related settlement practices were followed there.

Shetland, its southern point about 80km north-east of North Ronaldsay, has a different geology and topography to Orkney and a slightly cooler climate. The geology is complex and the coastline more rugged and incised. Much of the bedrock is metamorphic, granitic or igneous except for small areas of sandstone, concentrated in south Mainland with an outcropping of Old Red Sandstone familiar from Orkney characterising the far south. The islands are notable for serpentinite rock from which steatite is quarried. There are fewer areas of windblown sand, but erosion-liable sand beaches with sand-dune links are a feature of southern Mainland and southern Unst in particular. Shetland was a maritime

[1] Orri Vésteinsson noted in passing when discussing farm-mounds in Iceland that as regards farm-mounds there 'is still scope, and great need, for a systematic comparison and debate between the different regions of the North Atlantic' (2010, 14). Having established a detailed basis for Orkney this chapter begins that comparison.

cross-road in ‘diasporic networks’, a short voyage from the coast of Norway and relatively removed from the heartland of the earldom of Orkney (Jesch 2015, 168). The archipelago appears only occasionally in more than passing in *Orkneyinga saga*: for example as a storm-refugee for Earl Rognvald (Pálsson and Edwards 1978, ch. 85; see also. ch. 93).

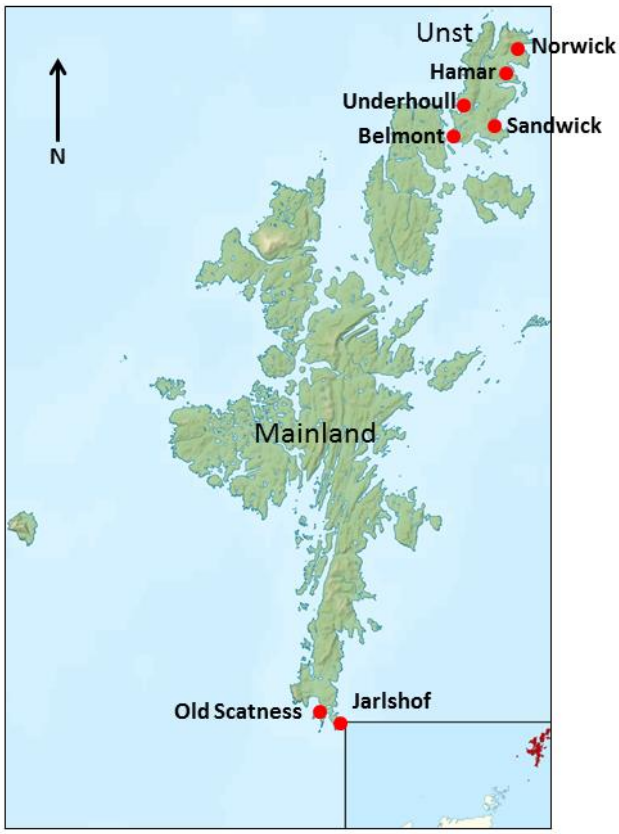

Fig. 10.01: sites in Shetland discussed in the text.

Despite few sites having been excavated, it is clear Shetland has an equally varied, if differently accented, Viking-Late Norse settlement pattern as Orkney. The investigated sites comprise two major multi-period settlement mound sites in areas of windblown sand drift geology in south Mainland: Jarlshof and Old Scatness (Hamilton 1956; Dockrill et al. 2010), and another possible one at Norwick, Unst (Ballin Smith 2013); coastal-sites on sandy bays at Sandwick and Lower Underhoull, Unst (Bigelow 1985; Small 1966); and higher, hill-side sites including Belmont, Hamar and Upper Underhoull, all also on Unst (Bond 2013; Larsen 2013; Fig. 10.01). The sites at Sandwick and Underhoull will be discussed briefly in the context of a wider sand-bay archaeological landscape. The emphasis will be on observing locational stability, superimposition and use of midden-type material.

In the past Jarlshof (Mainland) has been referenced as the type-site for the development of Northern Isles longhouse settlements (e.g. Stummann Hansen 2000), but the recently completed Viking Unst Project – including survey and excavation – has emphasised the variety of settlement on Shetland, with 'no blueprint' for a longhouse site (Turner et al. 2013, 235). The project, by initiating new and reporting old research, has subjected the most northerly island, Unst, to more investigation than any other part of Shetland, apart from the neighbouring sites of Old Scatness and Jarlshof in the far south. For example, an Unst-wide survey identified over 60 potential Viking-Late Norse longhouse sites, a remarkable number for an island at most 20 by 11 kilometres, even if it is acknowledged that only half were confident identifications (Dyer et al. 2013; Fig 10.07). The majority were discovered on hill-sides above 30mOD, usually with extensive views. Even if that result is biased by the unrecorded loss of coastal-sites, and the high visibility and good survival of longhouse foundations in rough grassland above areas of later intensive cultivation, this distribution is completely different from anywhere in Orkney. This will be discussed further in the conclusion of this section.

Jarlshof (Mainland)

The settlement mound of Jarlshof, excavated between 1934 and 1949, sits on the coast-edge of the southern arm of the sandy bay of West Voe, overlooking the approach to the beach (Hamilton 1956). Extensive and complex sequences of Viking-Late Norse longhouses, ancillary buildings, yards, middens and enclosures were discovered in the huge multi-period mound, which originated in the Neolithic. Seven phases of Viking-Late Norse settlement were identified and some building foundations remain consolidated amidst the surviving tangle of earlier and later settlement. This was an attractive sandy bay site for settlers, as the excavator explained: 'Here excellent harbourage could be obtained while the fertile soils above the dunes on the lower slopes of the sandstone headland offered good arable land… A constant supply of fresh water was also assured by the small springs issuing from the base of the headland …' (Hamilton 1956, 1). Sailing from the south, the cliffs of Sumburgh Head were a welcome guide for approaching craft (Fig. 10.02).

Fig. 10.02: Sumburgh Head looking south from Jarlshof.

This is a crucially important site and perhaps inevitably the methodology and publication of the much-scrutinised excavation have been lamented as lacking in detail and scientific rigour. The absence of stratigraphic detail does mean the accuracy of the phasing and complexity of relationships between longhouses, ancillary buildings and associated middens is difficult to verify.[2] However, elegantly-written descriptions of spreads of occupation-deposits and midden-type material in relation to phases of building create a vivid picture of the development of the mound and the constructional history of the settlement (Harrison 2007).

The excavation was extensive, including buildings *and* surrounding areas. Hamilton recorded how buildings were reconfigured over midden spreads and midden-infilled structures, and new ancillary buildings sited over structured middens peripheral to earlier concentrations of activity (Figs 10.03-4). Hamilton described occupation layers of dark sand and domestic refuse and distinguished these midden-*influenced* layers from other more organic midden deposits. He established three classes of the latter: 'house middens ' – short-term, focused deposition – with a 'direct relationship' to an adjacent building;[3] 'occupational scatters' creating effective surfaces around houses and paved areas; and finally the long-term, large 'communal peat ash middens ' shaping the bulk of the mound (ibid. 97-8).

[2] There are also no individual context descriptions in the publication so it is impossible to track down detail on for example wall-fill or the finer distinctions between types of midden.
[3] It is, however, difficult to understand exactly how the excavators linked separate structural phases directly to those apparently discrete, more modest but highly organic and artefact-rich midden heaps in such a complex stratigraphical environment.

Within the deliberate infill of earlier buildings he noted distinct layers of red peat-ash; grey-black wood ash; black, greasy byre waste; yellow silty ash and organically-darkened windblown sand. Hamilton noted how midden-type scatters stabilised the sand around the yards (ibid. 112). He painted a rich picture of the build-up of the mound through superimposition, the extensive use of midden-type material, and the interaction between sand and organic deposits. The differentiated midden layers were also used to establish the relative chronology of buildings (Fig. 10.03).

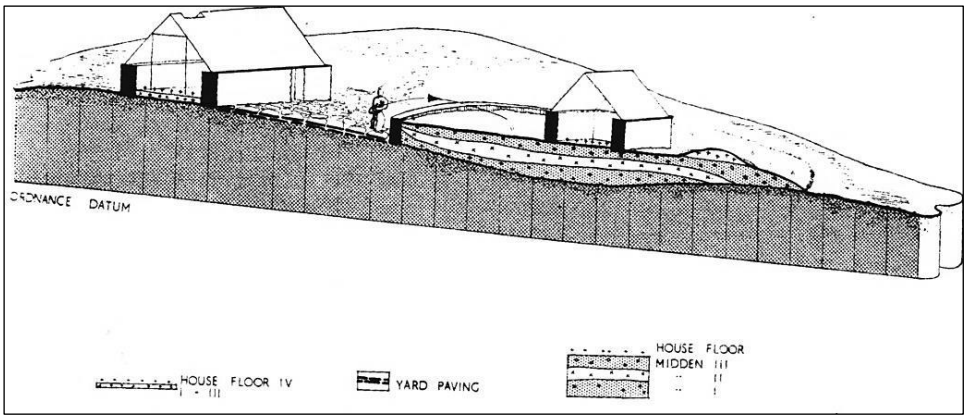

Fig. 10.03: schematic depiction of the deposition of house floors, yards and middens, from Hamilton 1956, 97.

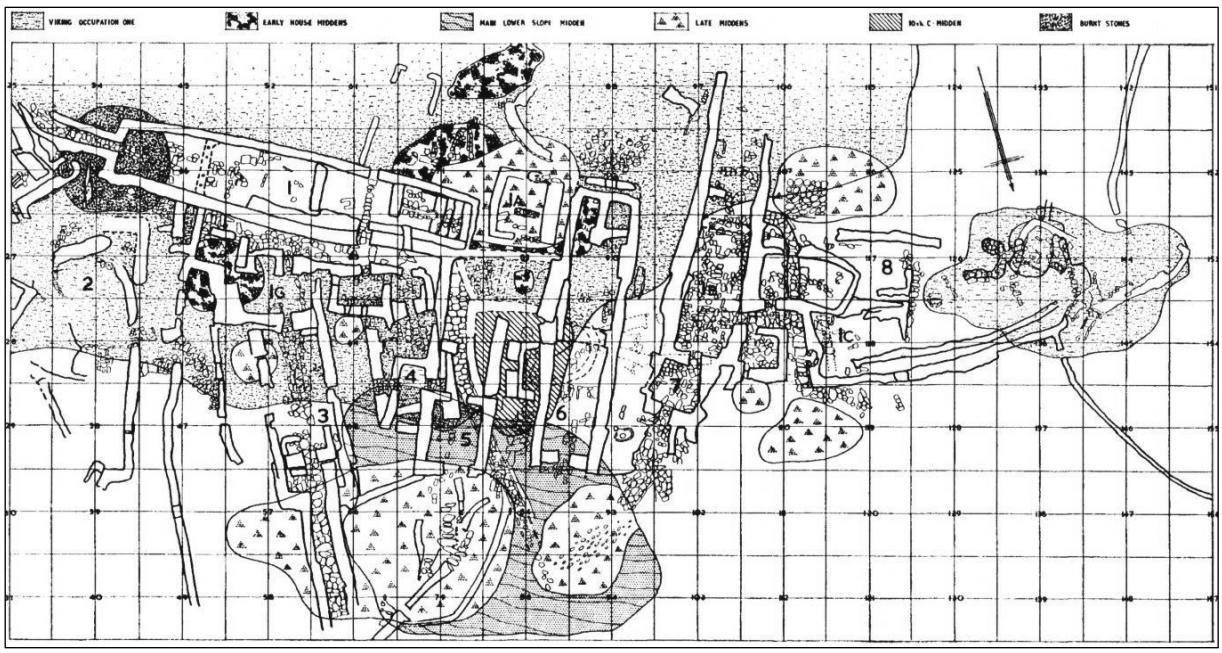

Fig. 10.04: Viking-Late Norse settlement at Jarlshof, showing the pattern of different midden deposits: each square is 10 feet^2, from Hamilton 1956, 101.

There were repeated examples of superimposition, infill and partial re-use as the settlement developed. The first longhouse, "parent building" House 1, was built into and onto the infilled remains of earlier

settlement outside the broch walls, partly re-using an old enclosure for its own yard (ibid. 94; Fig. 10.05); the floor was laid directly over the last hearth in "Hut 2" (ibid. 129). House 1 remained in use throughout the settlement's occupation, shifting in size and internal arrangements but retaining the same dominant mound-shoulder location. Buildings were frequently restructured and extended or shortened, often re-using wall-stretches and foundation courses of previous structures. For example, Hamilton noted that one of the later (Phase 7) farmsteads, House 7, was erected re-using parts of earlier out-houses: 'the new [wall] alignment shows a constriction in the walling where it was wedded to the old' (ibid. 169; also e.g. 94-5). Smaller farmhouses and ancillary structures were also erected over accumulated midden deposits, the settlement expanded over the "communal peat ash midden". Buildings were partially dismantled and infilled with midden-material: House 2 was selectively dismantled and incorporated into new enclosure walls (ibid. 158). The early, purported bath-house was subsumed in peat-ash midden before being built over (ibid. 110; 132 and 154-6 for other examples). Later buildings constructed downslope on the expanding mound 'overlay deposits and structures … of the Viking period' (ibid. 97).

Fig 10.05: the consolidated remains of House 1, Jarlshof looking north-east.

Hamilton presented long outline sections through the mound, middens and structures illustrating the mound's dynamic development: he stressed each phase was an 'integral part of a continuous process' of change (ibid. 102). Jarlshof remains the most complete excavation of multi-phase Viking-Late

Norse settlement, yards *and* middens; further useful work on analysing the use of organic material within the mound and structures might be achieved by returning to the original records.

Old Scatness (Mainland)

The multi-period settlement mound of Old Scatness, with an Iron Age broch and settlement at its core, was excavated from 1995 (Dockrill et al. 2010; Fig. 10.06). It sits a kilometre north-west of Jarlshof across the bay and facing the ocean, but shares the same sand geology;[4] the two sites may possibly have been inter-visible when the brochs were standing but are not now. Old Scatness broch looked across the Pool of Virkie to Brough Head broch (Canmore ID 918), one kilometre to the north-east. Sumburgh Airport now intervenes. The construction of the airport road cut through the northern edge of the mound probably destroying other Viking-Late Norse houses associated with Old Scatness; a furnished Viking grave was also uncovered in the airport area (Canmore ID 552).[5]

Fig 10.6: consolidated Iron Age archaeology at Old Scatness looking north-west.

Coherent Viking-Late Norse structures were not discovered at Old Scatness as the mound was heavily truncated, but there was some settlement evidence from that period – mainly paving and stretches of

[4] Raymond Lamb noted that the windblown sand at Jarlshof is shell sand while that encountered when the airport was laid out was more dominated by quartz sand, demonstrating how windblown sands can vary in composition over quite small areas (1985).
[5] Much of the recorded archaeology on Sumburgh Head and Scat Ness related to World War Two defences and camps but there were some probable Iron Age sites and earthworks, cairns and enclosures listed.

walling – built onto and into 'artificially levelled Late Iron Age midden and rubble' (Dockrill et al. 2010, 78).[6] A phase of structural reorganisation was associated with Viking-Late Norse 'cultural attributes' and the partial re-use and deliberate infilling of Pictish buildings (ibid. 79).

Pictish Structure 5 had been infilled so the surviving wall-height was level with the surrounding contemporary ground-surface. The infill contained "native" pottery, steatite artefacts and smithing debris and returned ninth-century radiocarbon dates (ibid. 79-80). This midden-type infill with residual artefacts must surely have come from midden accumulations associated with other Viking-Late Norse buildings close-by, but not found. Then, also in the earlier Viking-Late Norse period, a small wheelhouse, Structure 6, was re-used as a smoke-house and/or storage area, and part of another wheelhouse modified around a hearth, before being rapidly infilled with rubble and midden (ibid. 81-3). Over this infilling more extensive Viking-Late Norse settlement was indicated by sheet/spread midden and the ephemeral remains of two buildings (ibid. 86-9). No walls could be established for one of those, Structure 34, which was represented by a hearth constructed over levelled-off midden. The second building, Structure 4, was a fragmentary longhouse, surviving only as traces of paving and walls. The rest of the Viking-Late Norse archaeology is lost.

The excavators noted – comparing Old Scatness to Jarlshof and Pool – that the 'appropriation by the Vikings of existing settlement sites seems to have been the norm not the exception' (ibid. 97). Certainly, on this relatively fertile, sandy southern tip of Shetland, the existing evidence does show high-status, and – unusually – broch-related, rather than non-broch linked, Pictish settlements were being targeted, arguably by 'elite' incomers (ibid. 361).[7] The conclusion to this research will argue that across the North Atlantic such arrogation was *one* of the approaches to establishing settlement, and not the norm. It was perhaps the approach most often followed in acquiring areas *already* acknowledged as high-status, across the Northern Isles.

[6] The investigation of midden (dated to the thirteenth-fourteenth centuries) north-east of the main site and the structures reported during the building of the airport road also hint at a more extensive Viking-Late Norse settlement element (Dockrill et al. 2010, 78; Lamb 1985).

[7] The excavators of Old Scatness argue for an extended chronological model of settlement (ibid. 368-9). Both there and at Jarlshof the argument is that the previous population were in evidence and absorbed in a gradual settlement process.

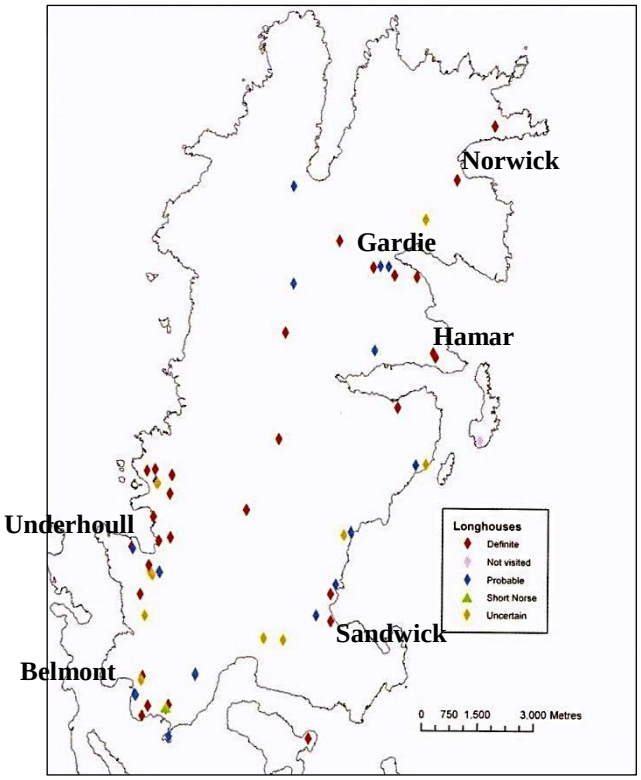

Fig. 10.07: Viking Longhouses on Unst, after Turner et al. 2013, 109.

Unst

Following a pattern familiar from Orkney, each of the sandy bays and major inlets on the east coast of the island of Unst has known/suspected Viking-Late Norse archaeology. Moving south the main areas are: Norwick; Gardie at Haroldswick (Dyer et al. 2013, 111); Hamar on Balta Sound (a shingle-beached inlet); and Sandwick on Sand Wick.

Norwick

Norwick lies on a wide sandy bay on the upper north-east coast. When the graveyard in the centre of Norwick village was extended in 2003 ‘tantalising’ Viking-Late Norse archaeology was recovered during a salvage excavation (Ballin Smith 2013, 232). The graveyard is located on a decided mound, overlooking the beach 200m north-east. The nature of the recovery excavation means the results must be treated with caution, in particular the very early radiocarbon dates (seventh-ninth century) associated with the first phase of fragmentary Viking-Late Norse archaeology. Early Iron Age settlement was also revealed and separated – at least in that part of the mound – from overlying Viking-Late Norse remains by a thick layer of windblown sand (ibid. 231). Two distinct phases of

Viking-Late Norse activity were detected: areas of paving, 'charcoal-ash and midden material'; a sequence of hearths, and in one area a drain overlain by midden into which stone wall-foundations had been cut (ibid. 219). Norwick is probably a major, multi-period, sandy bay settlement mound.

Sandwick

Fig. 10.08: Sand Wick Bay looking north with the remains of the southern longhouse in the foreground. Framgord chapel and longhouse are on the arm of the bay mid-right.

Sand Wick is a wide, sandy-beached bay on the lower south-east coast, open to the north-east (Fig. 10.08). On its northern arm lie the unexcavated turf-covered foundations of a probable longhouse (Dyer et al. 2013, 110) just north-west of the early chapel of Framgord (Canmore ID131; Fig. 10.09).

Fig. 10.09: Sand Wick Bay looking near east with Framgord chapel in the background and probable longhouse earthworks running west-east on the mound in the foreground.

In the 1930s several archaeological foci comprising midden with Viking-Late Norse finds were noted in the eroding edge of the bay's dune-system (Stummann Hansen 2000, 95). The remains of a heavily damaged coast-edge site in the north were excavated in 1995 and three phases of Viking-Late Norse activity were identified (Canmore ID126). In the south a badly-damaged mound – dominated by Iron Age remains – was excavated recently (Canmore ID 274117); an adjacent Viking-Late Norse site had been investigated in the late-1970s, with an emphasis on environmental sampling (Bigelow 1985). On that site three phases of a very truncated, but clearly much-remodelled longhouse, were identified, interpreted by the excavator as originating in the twelfth century. The longhouse was partly constructed over a Late Iron Age cist cemetery and – on the basis of the plans available – it seems possible that earlier Viking-Late Norse phases were simply unidentifiable, or not reached.

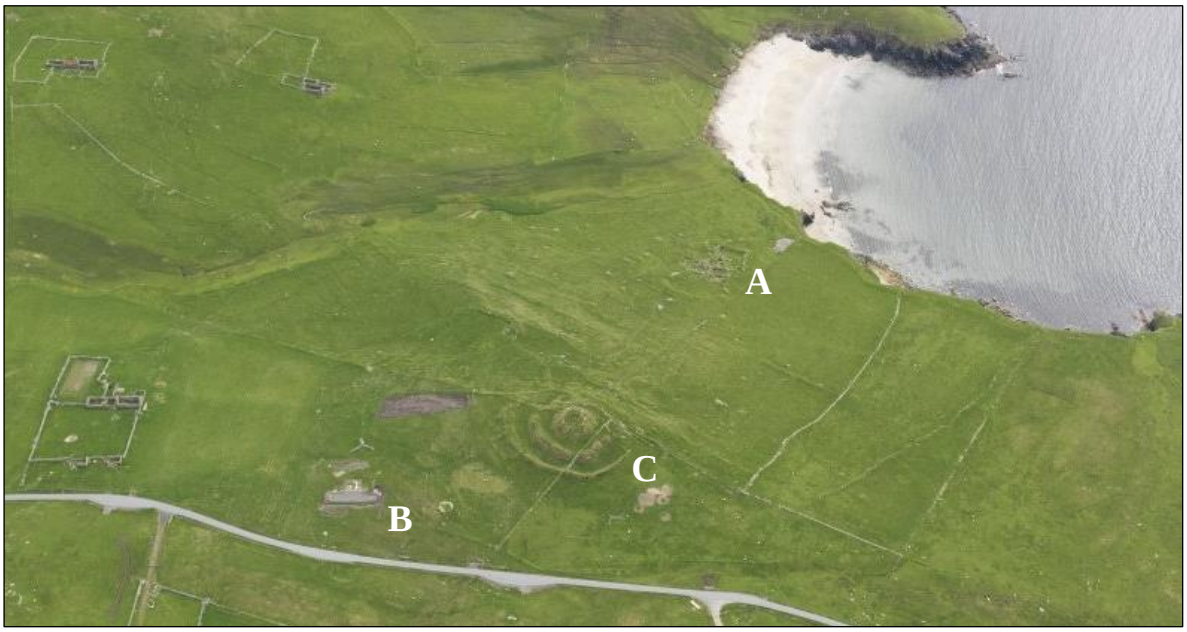

Fig: 10.10: showing Lower (A) and Upper (B) Underhoull and the Broch (C) © Canmore DP00082013.

Underhoull

As well as the concentrations of Viking-Late Norse settlement around east-coast bays there are others in south-west Unst, a sheltered area with the most fertile soils on the island (Fig 10.07). The cluster of settlement on the northern side of the sandy bay of Lunda Wick seems to combine similarities with the broch-related, multi-period mounds in southern Mainland, and Sandwick to the south-east. The Viking-Late Norse farmstead of Lower Underhoull, lying along a break of slope 70m from the beach-

cliff, was investigated in the 1960s (Small 1966); the foundations of an unexcavated broch lie above, just over 100m north-east (Canmore ID 31); and the recently excavated Viking-Late Norse site of Upper Underhoull is situated less than 100m above the broch with commanding views (Bond 2013, 156-79; Fig 10.10). Dry-stone walls and bone-rich midden containing steatite have been recorded eroding from the northern beach-cliff of Vestrick Ness in the centre of the bay (Canmore ID 39; Fig. 10.11). The chapel at Lund on the southern arm of the bay is twelfth-century, while another possible longhouse complex sits on a spread mound 400m above the southern loop of beach (Dyer et al. 2013, 112).

Fig. 10.11: looking west across Lunda Wick's sandy beaches from Lower Underhoull. Lund chapel is above the end of the further beach. The group is examining an area of midden eroding from the cliff.

Lower Underhoull: Alan Small interpreted Lower Underhoull as a three-period site, spanning an Early Iron Age dwelling and souterrain, a broch-period 'workshop' and Viking-Late Norse longhouse complex 'established on the deserted ruins' of the previous settlements (1966, 227; Fig. 10.12). Nearly 200mm of colluvium separated the Iron Age occupation from longhouse floors, suggesting to Small the site had been deserted before Viking-Late Norse re-occupation. Underlying structures were partially dismantled down to the new ground level and 'careful site preparation' undertaken to

accommodate the larger Viking-Late Norse building *directly* over earlier remains: at one end the bedrock was quarried into, in the south ground was built up, thus creating a level terrace (ibid. 237).

There were definite signs of locationally-stable, structural complexity in both the longhouse and annexes, including wall reconstruction, several modifications of the layout and door-blocking; the rounded west gable-end of the main building incorporated Iron Age walling (ibid. 238-9; 245-6; Fig. 10.12). Unfortunately most of the surrounding midden was lost to later truncation, and the little that survived not reported in any detail. The site is argued to be eleventh- to twelfth-century but there are no radiocarbon dates (Bigelow1985).

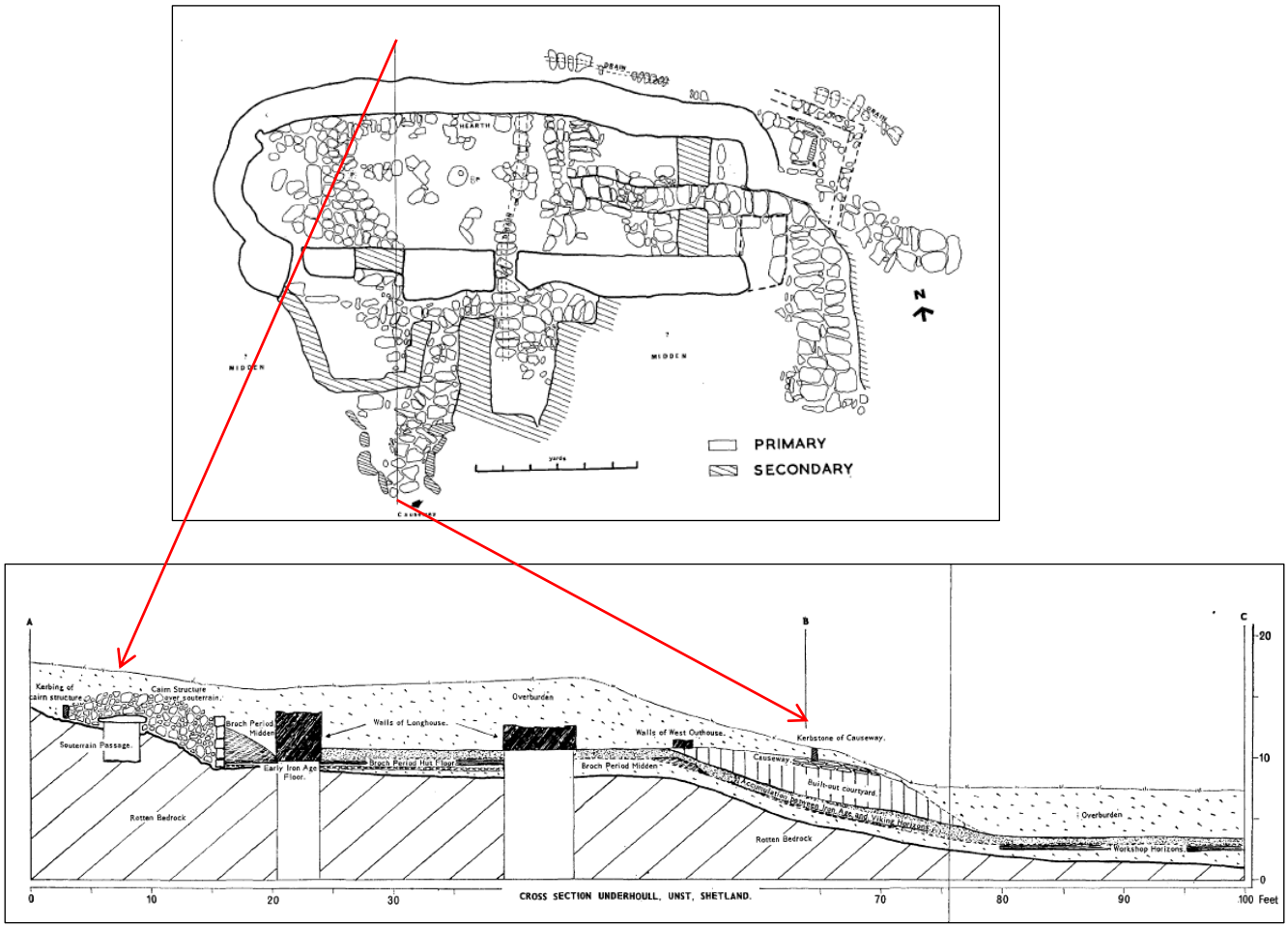

Fig. 10.12: the west-east longhouse above and, below, the N-S cross-section through the site, adapted from Small 1966, 226 and 236.

Upper Underhoull:[8] The longhouse complex of Upper Underhoull (c.19.5m by 5m internally) had three "zones", including a central domestic area with a sprung timber floor, and two annexes (Bond 2013, 156-79; Fig 10.13). The site had been badly truncated, but layered floor deposits survived in the upper zone of the longhouse, as well as evidence for midden-infill of the annexes. The site has excellent views over the bay. It is impossible to determine whether Viking-Late Norse occupation of the Upper and Lower sites overlapped, although it is likely. Rectangular earthworks within the broch complex may also be indicative of Viking-Late Norse re-use of the broch (Turner et al. 2013, 235).

Fig. 10.13: the consolidated foundations of Upper Underhoull, looking south-east.

Hamar and Belmont

Unst also has the striking distribution of longhouses on higher slopes (Fig 10.07). Two were investigated by the Viking Unst Project:

Hamar: The longhouse excavated at Hamar (c. 24m by 6m internally) commands extensive views across Balta Sound and was apparently paired with a (briefly investigated) longhouse just up-slope (Bond 2013; 124-156, 178-9). Excavation revealed that only shallow deposits had survived as the area had been scalped for turf and extremely disturbed by rabbit burrowing; no midden was found (ibid. 126-7). Here, as at both Underhoull sites, the bedrock had been quarried into to create a building-

[8] The reports on the Hamar, Underhoull and Belmont excavations in the Viking Unst volume are detailed interim ones: more information will be forthcoming on for example dating, surviving floor sequences and environmental sampling (Turner et al. 2013).

platform for the longhouse. Despite the truncation, several phases of activity were represented. The earliest phase was an unusual and late pit-house (probably eleventh-century), which had been carefully in-filled with 'ash-rich layers' so the longhouse could be erected directly over it (ibid. 129). This, the excavators noted, 'suggests that this *particular* position is of itself important' (ibid. 178; my italics). Earlier phases were difficult to characterise but the longhouse was progressively shortened and finally a small room built inside the upper part.

Belmont: Three large, multi-phase Viking-Late Norse farmsteads were reported around the Wick of Belmont in the survey of longhouses. One on the rugged hillside in the east of the bay, with excellent views to south and west, was excavated (Larsen 2013, 181-216). Five Viking-Late Norse phases were identified, during which the longhouse was extended, annexes added and, finally, the dwelling shortened. Midden-type material was used as levelling layers, but no piled/spread middens were located (ibid. 186 and 215). Both iron-smithing and the working of steatite were undertaken on site and the excavators argued that the farmstead's economy was supported by trade in steatite artefacts.

Summary

Shetland settlement probably developed within a slightly different political context to Orkney, less structured by earldom events, and in differently-varied landscapes with an economic environment influenced by the steatite trade. The social structure was similar, organised under "chieftains", but leaders perhaps less constrained by kings and earls. A complex and distinct settlement pattern is emerging. There are similar aspects: both have multi-period settlement mounds dominating coastal sandy landscapes, and the settlement pattern at Sandwick and Underhoull (Unst) is potentially as complex as the Bay of Skaill (Mainland) Orkney. Shetland may also have sites linked in dispersed "villages", for example at Underhoull, and such loose clustering may partly explain the distinctive, higher-placed longhouse distribution, for example at Belmont. Similar sites may exist under contemporary housing on Orkney, where unlike on Unst the higher ground has continued to be attractive for housing and agriculture.

In Orkney there are no certain examples of Viking-Late Norse *settlement* built into broch-mounds.[9] This seems to be more a Shetland phenomenon, seen at Jarlshof, Old Scatness and possibly Underhoull broch. (Lower Underhoull and Sandwick (south) also directly reference other Iron Age non-broch features, in a way familiar from, for example, Birsay Bay). The Old Scatness excavators argued that the broch-site adoptions signalled the takeover of rich Pictish estates by incoming elites (Dockrill et al. 2010, 95). This may be the case, but the landscape in Shetland is also less mound-rich and the choice of manufactured/people-built mounds to build on in areas attractive for settlement more limited. The relationship between incomers and indigenous groups may also have developed differently, with more of a pattern direct acquisition of active estates.

However, many mound-related building practices have been evidenced within this settlement pattern, especially at Jarlshof. As well as selecting dominant locations with wide views, the locational stability of rebuilt longhouses, structural re-use, midden-infilling, and targeted use of selected midden-type material were recorded at many sites. There is no space here to analyse place-names, although around 15 *skáli*-names are recorded on Shetland (Jakobsen 1936, 96 and 129; Stewart 1961). No relationship could easily be established between those names and known Viking-Late Norse archaeology.

Caithness, northern Scotland

Caithness was an integral part of the Orkney earldom. *Orkneyinga saga* mentions estates held in Caithness, for example at Freswick, but the extent and degree of earldom control over the area varied (Pálsson and Edwards 1978, chs 92-3; Thomson 2008a). Only one Viking-Late Norse settlement site has been investigated to any extent – Freswick Links – and only two others are confirmed: Robert's Haven and Huna, two kilometres apart on the northern coast (Fig. 10.14). There is slight evidence for

[9] The evidence at the Broch of Gurness (Rendall, Mainland) is equivocal (Canmore ID 220). There was undoubtedly a Late-Norse Viking (possibly tenth-century) female grave inserted into a wall of the outer courtyard and some of the uppermost fragmentary building remains detected in a poorly recorded excavation may have been early Viking-Late Norse.

possible re-use of broch-mounds, with Viking-Late Norse artefacts or rectangular earthworks found at Freswick Sands, Birkle Hills and Tulloch brochs (Batey 1984, 23).[10]

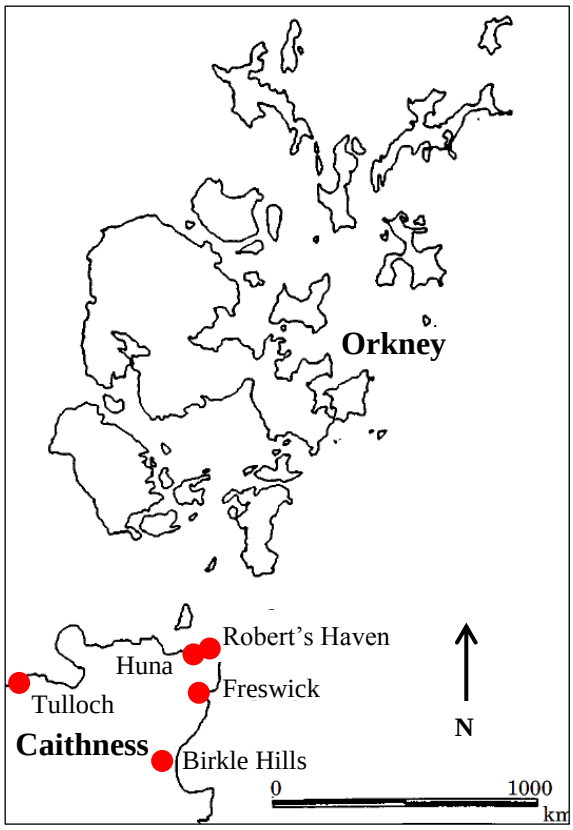

Fig 10.14: sites in Caithness mentioned in the text.

At Robert's Haven, a sheltered bay with a sand-beach and links, sand-quarrying revealed stone-built structures and middens just inland of where wall-lengths, and midden containing Viking-Late Norse artefacts, had been recorded eroding from a coast-edge mound (Batey 1984). The site clearly extended several hundred metres along the coast and well inland (Simpson and Barrett 1996). Huna, just to the west along the coast, is a natural harbour, also with sandy beaches and links. A complex structural sequence, probably Viking-Late Norse, once visible in a coastal-mound was removed by modern construction (Graham-Campbell and Batey 1998, 201).

Freswick Links

Freswick Links is an extensive Viking-Late Norse site at least 800m north-south and running 100m inland, located in shifting sand-dunes with a long eroding coastal-section. It was investigated first in

[10] This evidence could also be the result of a combination of Viking-Late Norse burial and post-Norse re-use.

1937-8 and 1941 (Curle 1939; Childe 1943), and finally in the early 1980s (Batey 1987; Morris et al. 1995). Childe uncovered a sequence of 'great structural complexity' in a small cliff-edge excavation, including a much remodelled longhouse raised over, and partly re-using, earlier buildings (Graham-Campbell and Batey 1998, 199-200).[11] The later work focused on environmental sampling of extensive coast-edge middens, mostly dominated by fish-bone (Morris et al. 1995, 273). A range of midden-type material was distinguished including shell- and ash-rich layers, organically influenced 'discoloured sand' and humic sands with domestic debris. One midden area was defined by stone-edging. These deposits were inter-leaved, variable in content and composition, and processes of accumulation (ibid. 36, 258-9, 264; Harrison 2007). Some structural elements were discovered, but because excavations were either vertical cliff-edge or very limited in area, it was impossible to discern coherent buildings. The cliff areas could not be linked stratigraphically to the building-focus slightly inland to the west.

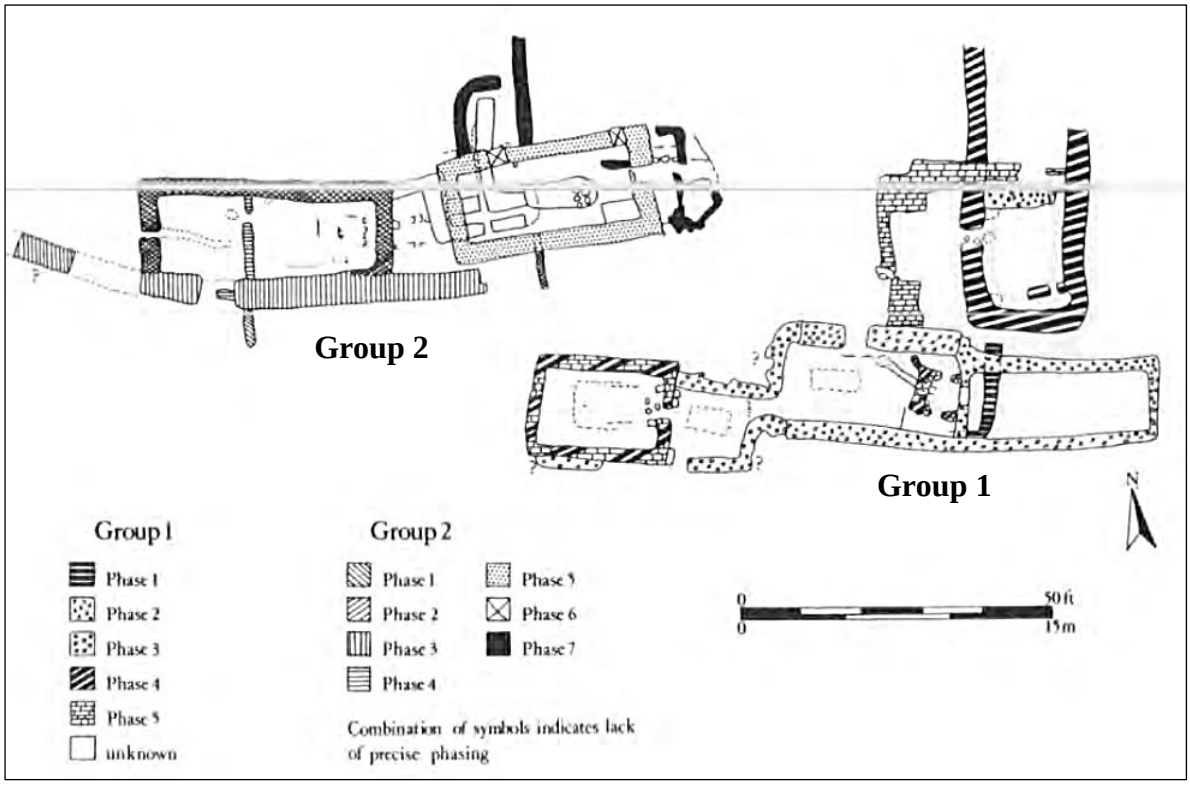

Fig. 10.15: revised plans and phasing of buildings at Freswick, after Batey 1987, 417 (marked/ unclear original).

[11] Absolute dating has been difficult because of the nature of the investigations but the identified structures may be from later in the period, c. AD1100 onwards. The middens were interpreted as the remains of Late Norse fishing activity on a scale sufficient for trade.

The main settlement area, excavated in three groups by Curle, lies within mounds in the centre of the links.[12] Curle did not report on midden-deposits in any detail, but it is obvious from Colleen Batey's re-analysis of Curle's work that construction approaches familiar from Orkney mound-sites were used (1987; Fig. 10.15). Several buildings were superimposed; wall-stretches partially demolished, re-used, and remodelled; structures built over midden and also infilled with midden-type deposits to allow new elements to be constructed above. Batey marvelled at 'the complexities of rebuilding on the same site' (ibid. 87). The earliest buildings were clearly not reached in all areas. Further work is needed to understand this settlement-complex fully and recover details of the mounds and building processes. More broadly the pattern and detail of Scandinavian settlement in Caithness needs further research.

The Western Isles

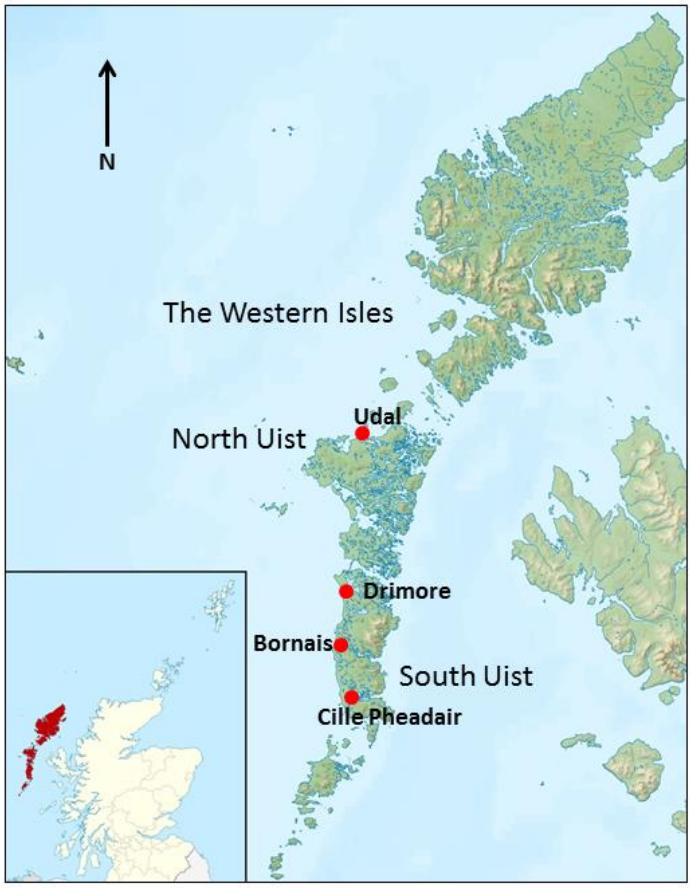

Fig. 10.16: sites in the Western Isles mentioned in the text.

[12] The relationship of fish-bone dominated cliff-edge middens to a complex of buildings behind is reminiscent of Quoygrew, pp. 259-64.

The first recorded Scandinavian raid on the west coast of Scotland occurred in AD795 and settlement of the strategic Western Isles may have begun during the ninth century, although as elsewhere the earliest phase remains difficult to date (Sharples and Symonds 2004, 129). Debate continues over the process of settlement: recently Niall Sharples proposed a compromise, arguing for the continued influence of a small population of pre-Viking inhabitants, despite increasing evidence for settlement dislocation alongside cultural change (Sharples et al. 2016; cf. Jennings and Kruse 2005). There is recent archaeological evidence, on South Uist if nowhere else, for the nature of the extensive Viking-Late Norse settlement of the Western Isles. That settlement is found exclusively on open, exposed western sand-machair coasts, focused on clusters of settlement mounds (Sharples 2005; Fig. 10.16-17). By the fourteenth century most settlement had moved east, away from the sandy coast and onto the peaty "blacklands". Recent work on South Uist has provided excellent case studies for this thesis.

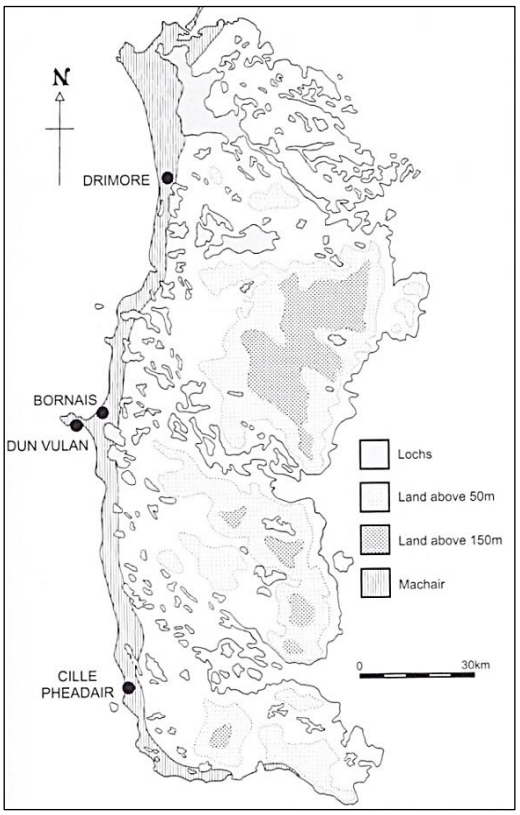

Fig. 10.17: South Uist, topography and principal sites, after Sharples 2005, 3.

South Uist

South Uist has been the subject of a major landscape research project, in particular around Bornais, where many sites have been excavated, surveyed or evaluated with test-pits (Sharples 2005 and 2012;

Fig. 10.17). Around Bornais – the main focus of excavation – five clusters of sand settlement mounds were identified. Three of these groups had definite/probable evidence for Viking-Late Norse re-use of *Middle* Iron Age settlement; but Sligeanach, comprising Bronze Age to Middle Iron Age elements, and notably the broch site of Dun Vulan, were not reused in the Viking-Late Norse period (Fig. 10.18).

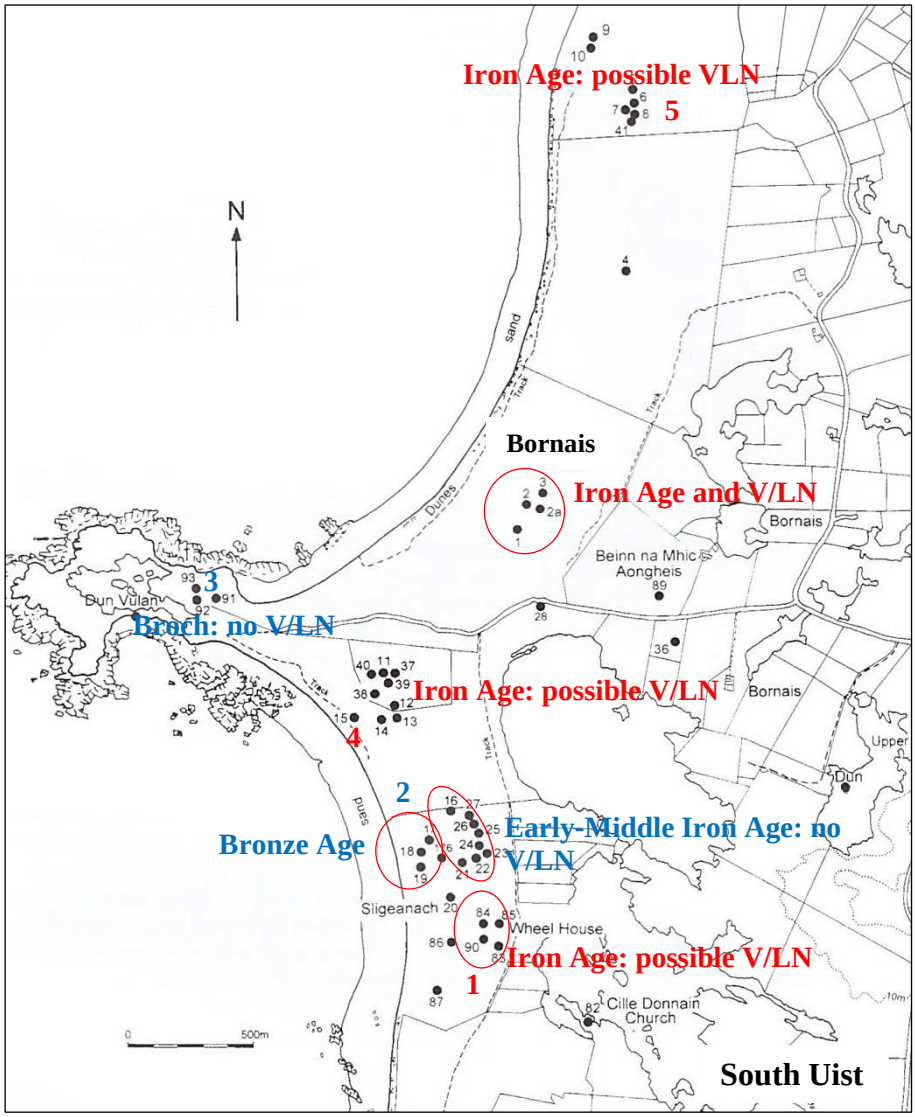

Fig. 10.18: clusters of settlement mounds on the machair plain around Bornais, adapted from Sharples 2012, 24.

Bornais

At Bornais three settlement mounds have been partially excavated indicating occupation and activity from the Middle Iron Age into the fourteenth century (Fig. 10.19). The monograph for Mound 2-2A, the heart of the Viking-Late Norse settlement, is soon to be published, but plenty of evidence is

already available to demonstrate how mound-related construction practices were applied on the mounds (Sharples 2005, 2012 and Sharples et al. 2016).

The main phase of occupation discovered on Mound 1 was a wheelhouse occupied in the fifth-sixth centuries.[13] A scatter of Viking-Late Norse pits and hearths was discovered cut into the infill of a systematically dismantled Late Iron Age structure.[14] A small trench towards the margin of the mound revealed a rectangular, semi-sunken Viking-Late Norse house dug into the organically-influenced sands which had accumulated around the wheelhouse (Sharples 2012, 137-72). This building had been infilled with rich Viking-Late Norse midden in the twelfth-thirteenth centuries, suggesting other contemporary activity elsewhere on the mound.[15]

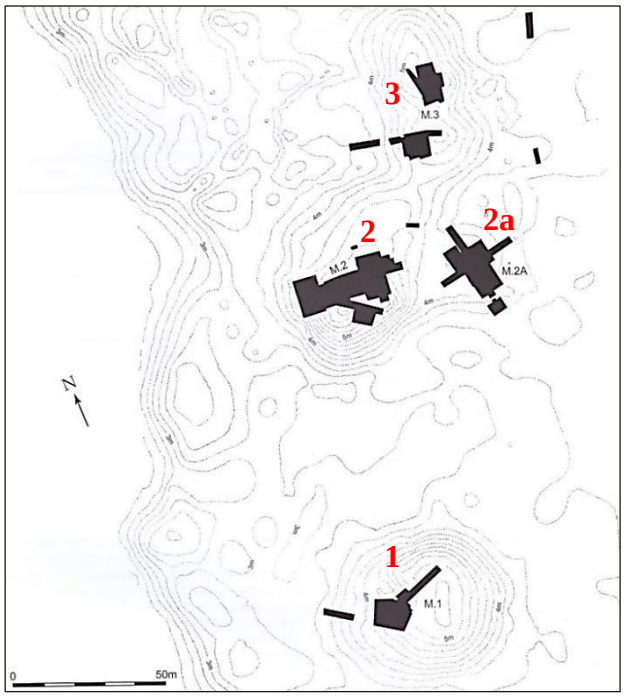

Fig. 10.19: excavations on the three Bornais mounds, after Sharples 2012, 2.

Excavations on Mound 2 produced excellent evidence for Pictish occupation but were dominated by a sequence of Viking-Late Norse buildings (Sharples et al. 2016; Fig 10.20). The artefact assemblage

[13] Wheelhouses were monumental stone-built dwellings characteristic of the Late Iron Age in parts of Atlantic Scotland.
[14] These features were from a disturbed and eroded area of the mound but returned radiocarbon dates (subjected to Bayesian analysis) of AD760–890 (68% probability) (Sharples et al. 2016, 255).
[15] Excavations on Mound 3 suggested a complex structural sequence but were limited to the investigation of the remains of a later Norse turf-and-timber building and associated barn with corn-drying kiln (Sharples 2005). Work focused on investigating patterns of domestic activity revealed by deposition on the house floors (e.g. ibid. 185-7).

suggested the first two buildings in particular were of some status. The earliest, House 1 was dug into the truncated floors and structural remains of the previous, abandoned settlement and then overlain by House 2 such that only the western end of the earlier building could be examined. There, by the surviving end of a central hearth, one of a group of pits contained a 'placed animal bone deposit' with a steatite bead and iron ringed-pin (ibid. 251).

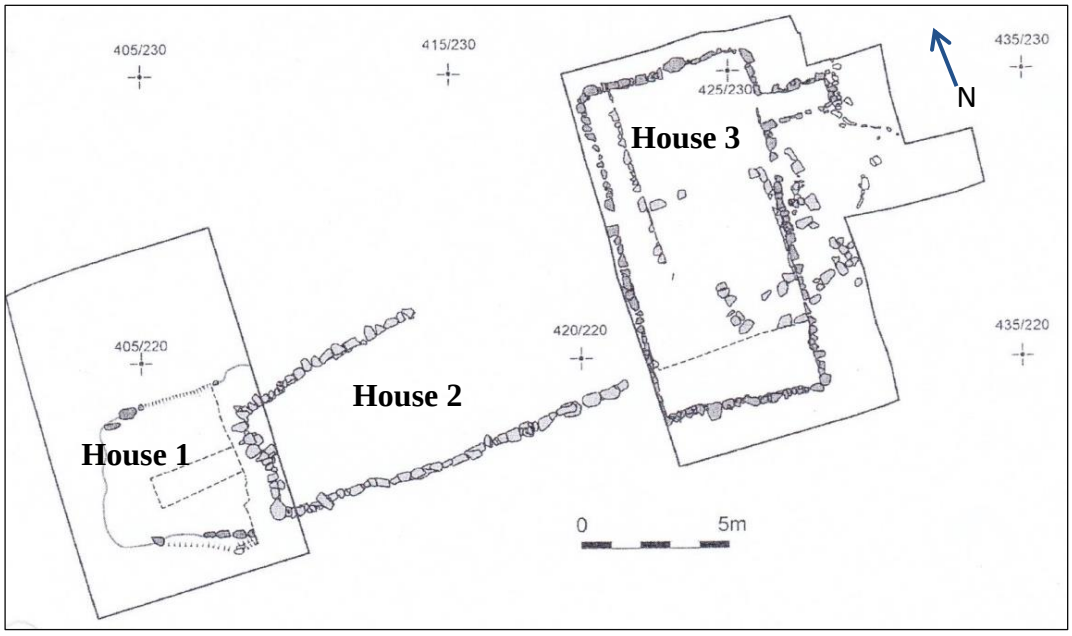

Fig. 10.20: the sequence of structures on Mound 2, after Sharples and Symonds 2004, 135.

House 2 was a stone-built, bow-sided hall; the final building a "Hebridean-style" rectangular building of the twelfth-thirteenth centuries (ibid. 249; Fig. 10.20).[16] The excavators observed that two large stones, originally marking the northern long side of House 1, were left *in situ*, protruding into House 2, reminding occupants of the presence of the underlying building.[17] They concluded the stones were 'deliberately left in place by the builders of House 2. The survival and re-use of odd remnants of earlier structures is a recurrent feature of Norse house sequences in the Hebrides' (ibid. 251). Generally at Bornais, where earlier wall elements were re-used, whether pre- or earlier Viking-Late

[16] A sequence of 35 radiocarbon dates was obtained for Mound 2 and good stratigraphical relationships allowed for Bayesian modelling. House 1 started being used from about AD920-980 (68% probability), House 2 was used from about AD1030-75 (68% probability) and all activity, including in the building ancillary to House 3, probably ended during the fourteenth-century (Sharples et al. 2016, 251, 253-4).
[17] This is mirrored at Skaill (Sandwick) Orkney where a corner stone from the original longhouse was left protruding out into the subsequent building.

Norse, no attempt seemed to be made to integrate the building styles – rather the reverse (Niall Sharples personal comment).

Mound 2A excavations concentrated on ancillary buildings associated with a possibly lower-status cluster of Viking-Late Norse buildings, at least partly contemporary to those on Mound 2. Most of the structures in the sequence could not be explored in detail, but included kilns, and the expanded periphery of the mound was created from a 'sequence of midden layers' (Sharples et al. 2016, 255).

Drimore and Cille Pheadair

Two other settlements have been excavated on South Uist. Cille Pheadair, dating from about AD1050-1350, was also excavated from a sand settlement mound (Sharples 2005, 182). A sequence of Viking-Late Norse structures was discovered, beginning with a timber building, and followed by four stone-built longhouses. These were not built over Iron Age structures. However, in the same way as at Bornais, each Viking-Late Norse 'rebuilt house was carefully positioned to overlap but not completely cover the previous house and, wherever possible, the later house incorporated part of the original house' (ibid.).[18] Drimore was partially excavated under difficult circumstances, but was notable for varied styles of wall construction, indicating the amalgamation of several building phases (ibid. 131).

Fig. 10.21: view of South Uist's machair north-west of Cille Pheadair, looking north © GoogleEarth.

[18] Interestingly at Cille Pheadair 'closing deposits' of a bone comb and pin were found in the abandonment layers of the second longhouse (Sharples and Symonds 2004, 141). This echoes the possible closing deposits found at Skaill (Sandwick) Orkney of a bone comb, candlestick and pottery.

North Uist

Udal

The significant site of the Udal remains largely unpublished, aside from short interim reports and articles run through with frustration at the complications of sand excavation (Crawford and Switsur 1977; Harrison 2007; Sharples 2012, 13).[19] Two large sand settlement mounds on the machair were occupied from the Middle Iron Age: Viking-Late Norse settlement probably spanned the ninth-twelfth centuries. The figure-of-eight buildings of the previous settlement were built over and partially incorporated into a cluster of successive Viking-Late Norse structures (Graham-Campbell and Batey 1998, 173).

Conclusion

The political context for Scandinavian settlement of the Western Isles, influenced by events in Ireland, the Isle of Man and mainland Britain to the east and south, had a different flavour to that in Orkney. Settlement in the Western Isles, as currently understood, was perhaps more often than on Orkney immediately adjacent to or built into Iron Age structures, usually after a hiatus in the sites' occupation from about mid-ninth to mid-tenth century. However, brochs were avoided (Jennings and Kruse 2005, 287). Bornais encompassed an extended Viking-Late Norse settlement on sand mounds reminiscent of Skaill (Sandwick) Orkney. There is, overall, excellent evidence for mound-focused settlement patterns, for the use of mound-related building practices, and the deliberate use of midden-type material to enable mound-building in sand landscapes.

Colonisation of uninhabited lands: Iceland

Were the settlement mound-related building practices important enough to be carried into uninhabited lands settled by Scandinavia-linked groups? This section will look briefly at Iceland as a case study and argue that, despite the lack of existing people-built landscape features, mounds, re-use and

[19] A major project is now underway to complete post-excavation and publication of this site: see http://www.socantscot.org/uncategorised/udal-north-uist-project-update/ (last accessed 3.2016).

locational stability, and the use and symbolism of organic and midden-type material remained powerful ways of constructing a cultural landscape.

Introduction

There is some contentious evidence for human activity in Iceland before the Viking-Late Norse settlement period[20] but, as in the Faroes, permanent and substantial human habitation seemed to begin with that settlement. Incomers encountered not an anthropogenic landscape but a wilderness. Iceland was – and is – volcanically active, with large areas of barren highland and glaciers. Apart from the sandy margins in the south, the coast is heavily indented by long fjords. But, even before areas of birch woodland were cleared, the unoccupied landscape provided ample pasture-land and habitable areas around lakes and along sheltered coasts (Jesch 2015). Viking-Late Norse settlement developed as individual, hall-focused farmsteads with no evidence yet for clustering of dwellings (Lucas 2009, 371). Some cereal cultivation was possible but the farming economy, supported by fishing and wild resources, concentrated on grazing animals, including initially pigs, but mainly cattle and, increasingly, sheep. The agricultural landscape was designed around manured/amended infields, pasture, meadows and a summer shieling system. A network of thing-sites provided assembly places within a chiefly political economy (Keller 2009; Zori et al. 2013).

The process of colonisation has been much debated (see Vésteinsson and McGovern 2012 for a recent summary). Although Iceland might possibly have been discovered before AD800, extensive settlement is only discovered after the crucial chronological marker, the "*landnám*" tephra-layer AD871+/-2. The initial colonisation may have been relatively rapid and numerous, taking in much of the immediately habitable land, although it was also undoubtedly a continuing and complex process involving people from across the diaspora including the Northern Isles (Goodacre et al. 2005).

[20] The settlement period is dated from after c. AD871 into the eleventh century.

Farm-mounds

In Iceland, as in Northern Norway, modern farms still exist on substantial mounds in the landscape. From the outset of settlement farmhouses were established on high ground, on hillocks, or breaks of slopes and a recent regional archaeological survey recorded 5,373 possible farm-mounds (Vésteinsson 2010). Farm-mounds have been regarded as integral to the Icelandic cultural landscape (ibid. 2010, 13-22). This of course resurrects the problem of definition. In a recent article on Icelandic farm-mounds Orri Vésteinsson defined them as 'sites where farmhouses have been situated on the same spot for several centuries', originating not at *landnám* but around the later-tenth to eleventh centuries (ibid. 2010, 14). Thus settlements originating earlier, and often deserted in the eleventh century, or not long after during a phase of farm abandonment, are *not* included in Vésteinsson's "farm-mound" category (Vésteinsson and McGovern 2012, 214; Sveinbjarnardóttir 1992).[21] However, earlier/abandoned sites – including Hofstaðir discussed below, which Vésteinsson characterises as a "single phase" site – display definite settlement mound characteristics. The familiar problem of lack of evidence also affects the discussion of settlement mounds in Iceland: a tiny proportion has been excavated and of those only a few included areas around the building or attained any great depth. In some cases the earliest phases may not have been reached.[22] Yet there is mounting evidence for the settlers bringing with them an 'ideology of permanence of location and rebuilding on the same spot as one's ancestors', and applying it to settlement from the outset (Lucas 2009, 398).

Stóraborg

Vésteinsson used the extensively excavated farm-mound at Stóraborg in north-west Iceland as a case study for exploring the mechanics of the formation of his category of later-starting, long-lasting farm-mounds, and suggested both practical and cultural explanations for their accumulation (2010). The sequence of 'stable and localised' settlement at Stóraborg ran from the twelfth-nineteenth centuries, the deep stratigraphy dominated within the building by ashy, organic floors and externally by degraded

[21] The reasons for the abandonment of a number of farms in the medieval period have also been much discussed: those proposed include the impact of trade and economic specialisation, climatic downturn and erosion, and social change (Sveinbjarnardóttir 1992).
[22] For example at Stöng (Vésteinsson 2010, 15) and at Hofstaðir (Vésteinsson and McGovern 2012 and 213).

building turf, ash deposits, domestic refuse and stones (ibid. 19). From about the eleventh century Icelandic farms characteristically developed by adding small rooms to the original buildings. This happened at Stóraborg, and Vésteinsson argued that once this process was underway people no longer moved away while farms were being partially re-built. Thus, dismantled turf-walling accumulated rapidly and internal floors were deliberately levelled-up to match rebuilt/new rooms. This move to creating multi-celled structures, Vésteinsson proposed, was driven by socio-economic change in household organisation, with increasingly specialised tasks concentrated into one farm-complex with a concomitant differentiation of internal space (ibid. 36-7). Then '[o]nce the build-up was underway and living in that spot had become a matter of tradition, continuing to do so would have been culturally and emotionally meaningful' (ibid. 34). Missing from the study of Stóraborg was an analysis of the role of middens and external deposits in structuring the settlement. Despite a limited area of excavation around the hall the excavators of another important site, Hofstaðir, tried to integrate buildings and surrounding areas.

Hofstaðir

The hall at Hofstaðir was excavated as part of a wider landscape project examining the area around Lake Mývatn in north-east Iceland (Lucas 2009). Next to a levelled farm-mound and located on a high break of slope 'rendering it more visible,' the hall, occupied from the ninth-eleventh centuries, is one of the longest discovered in Iceland and strategically located at a nodal point controlling access to the lake area from the coast (ibid. 402). The excavator argued that the hall's unusual size – 38m is over twice the average length of Icelandic longhouses – and evidence for the high consumption of meat marked it as a place for seasonal gatherings, incorporating large-scale feasting, and designed to bring people and resources together (ibid 393-4). The central structure itself – termed an "aisled hall" – was certainly modified during its relatively short life by the addition of annexes and ancillary structures, but there remains some debate about whether its length was the result of one phase of building (Fig. 10.22). Evidence that the hall may in fact have been enlarged from the central section of a shorter

predecessor included an ‘unusual kink’ in the wall-stones and visible differences in turf wall-construction on the west side (ibid. 112-3).

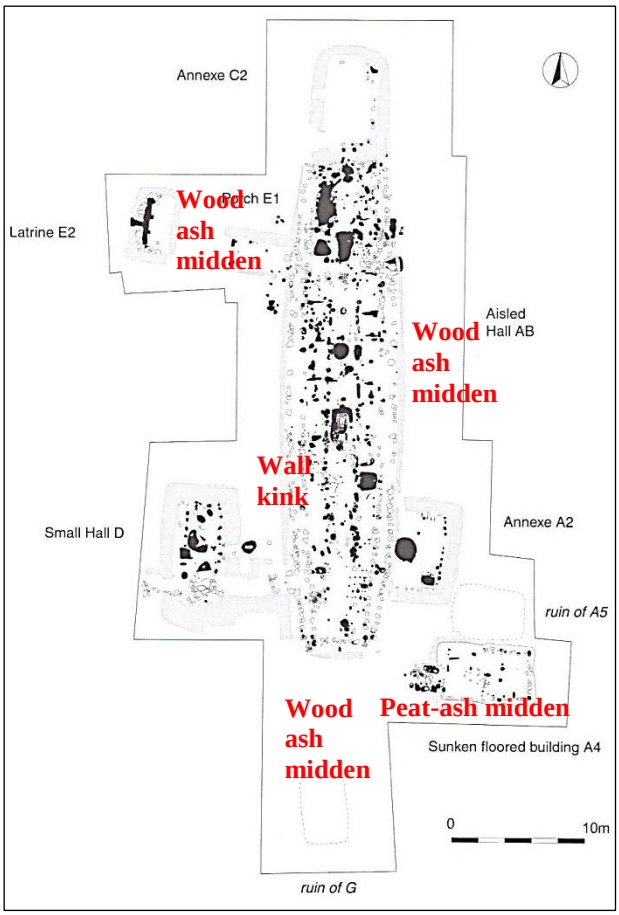

Fig. 10.22: Hofstaðir, Phase 2 plan, adapted from Lucas 2009, 114.

The areas around the hall were stabilised with sheet midden, substantially composed of ash (Fig. 10.22). Ash was an ‘important part of the site’s materiality’ and, in a by-now familiar cycle, ended up in midden-deposits, floors and the infill of no-longer used structures (ibid. 380). From the collection of peat/turf and wood, to their burning and recycling, ash was the result of ‘transformation and translocation’, and as such Lucas suggests would have had ‘symbolic connotations’ (ibid. 379). There were other ritual aspects to activities at Hofstaðir. A collection of cattle skulls, originally hung on the exterior walls of the building, was interpreted as resulting from the sacrifice of a young bull made at each significant occasion (ibid. 405). The increasing number of heads/skulls on display reminded people of the history of assembly at the hall. The excavators also suggested the ending of the settlement, as Christianity was introduced to Iceland, was ‘ritualised’ with the deliberate infilling an

annex with ‘symbolically charged’ iron-working waste and a semi-articulated sheep carcass (ibid. 398-9).[23] These actions indicated how marking important and repeated gatherings, and meaningful deposition, involving “rubbish” amongst other things, were integral to the formation over time of significant settlement locations.[24]

Conclusion

Continuing to build on precisely the same spot seems to have characterised Icelandic settlement from the outset, and ash and organic-rich deposits including turf were accumulated, managed, used and re-used in creating settlement mounds in prominent locations. These processes also encompassed using midden-type material to stabilise the mound. Layered accumulations in a deep settlement mound midden in Svalbard, north-east Iceland were used to raise the farm up and ‘stabilise the erosion of the farm mound area’ (Amorosi 1992, 116). There is more evidence yet to be gathered from other sites.[25] For example and in brief, The Mosfell Archaeological Project examined the Hrísbrú settlement in south-west Iceland, like Hofstaðir centred on a highly visible and very long tenth- to eleventh-century longhouse – a ‘materialised statement of power’ – situated in a strategic landscape position (Zori et al. 2013, 154). The hall revealed many floor-layers and had been infilled with midden. Sveigakot in the Mývatn area of north-east Iceland, occupied after the *landnám* tephra and abandoned before AD940 (V~940 tephra), revealed several phases of building and was surrounded by sheet midden (Vésteinsson and McGovern 2012, 211-2). This short chapter survey has been sufficient to demonstrate the exportability, persistence and continuing relevance of some of the ideas discovered in this research to have informed settlement mound construction in the Northern Isles. Even where there were no previous structures or manufactured mounds to reference, mound building techniques were still used and clearly retained their cultural significance.

[23] This infilling might be echoed by the contents of a pit at Skaill (Sandwick) Orkney where the end of metal-working on the site may have been marked by the filling of a pit with metal-working debris, hearth-fragments and semi-articulated animal remains (DSR 2010).
[24] Foundation deposits were also discovered at Hofstaðir: gaming pieces in a corner-post post-hole; and a crucible and a human tooth in a post-hole by the hearth (Lucas 2009, 394). Special deposits were found in post-holes at Borg in Lofoten (Munch et al. 2003, 61).
[25] There are also a number of examples from the Faroes of sand settlement mounds with buildings repeatedly rebuilt on the same spot and structured by layered and stabilising midden-type material (Arge 1991; Arge et al. 2005; Church et al. 2005).

Chapter Eleven: Conclusions

Introduction

This research aimed to catalogue and investigate the Viking-Late Norse settlement mounds of Orkney in the wider context of the North Atlantic, and to interpret the social and cultural role played by those complex monuments in the local landscape and community (see research aims pp. 3-4). The work has focused on new and freshly interpreted archaeology of the settlement mounds and their surrounding landscape, but the interdisciplinary approach has also embraced place-name and literary evidence. Investigation through the lens of settlement mound architecture has opened up the settlement pattern to new scrutiny. Not before analysed as a group, or as mounds, all the known, probable and possible Viking-Late Norse settlement mound-sites in Orkney have now been catalogued and set in their landscape context. The thesis then moved on to detailed investigation of the mound-sites from a new perspective: examining the building techniques used in constructing settlement mounds, in particular the reliance on midden-type material and the relationships with archaeology of preceding periods, and Viking-Late Norse phases, in the mounds. Also, all the Orkney skaill place-name sites were considered in their landscape location, and in relation to the settlement mounds, to elucidate the characteristics of the skaill-areas, and the settlement pattern which structured Norse-Orcadian society of the ninth to twelfth centuries. Finally, the material in Orkney was compared with settlement in Shetland, Caithness and the Western Isles, and with sites in previously unoccupied settlement areas, using Iceland as a case study.

The distribution and character of the settlement mounds revealed a great deal about their focal role in the socio-economic organisation of the landscape. The new and detailed stratigraphical scrutiny demonstrated the practical worth and symbolic potential of the construction methods and materials used in mound architecture. The suite of mound-linked building approaches was used to represent power and social relationships in landscape and included: visually-dominant halls remaining in precisely fixed locations, despite frequent reconfiguration; and an emphasis on superimposition and the symbolism of organic midden-type material. Viking-Late Norse people lived on mounds because

mound-sites, and the concomitant mound-building techniques, were critical to the ways in which they made themselves at home mentally – as well as physically – in new landscapes.

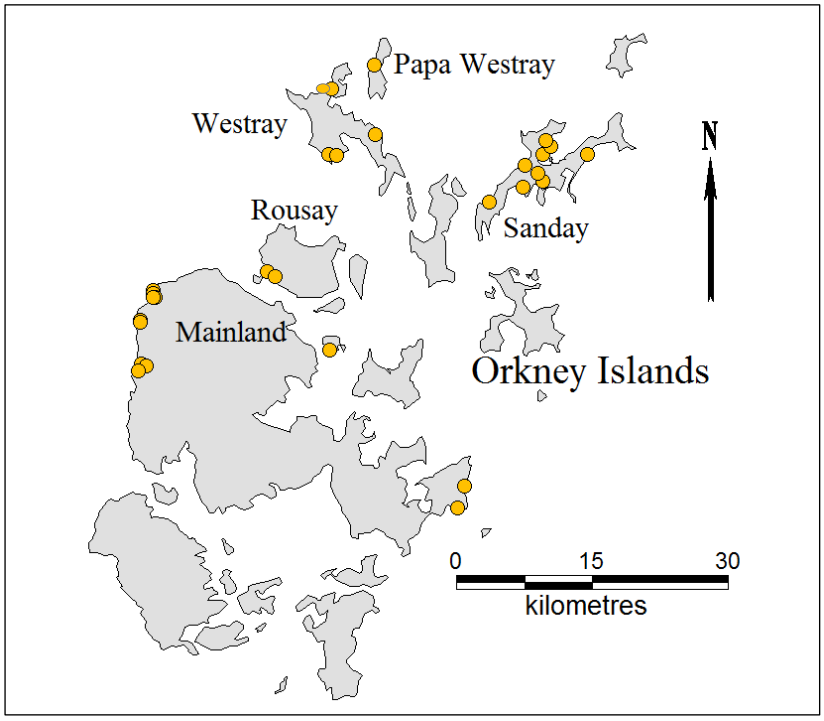

Fig. 11.01: known/probable settlement mounds examined in this research.

Settlement mounds

Chapters Four to Seven identified settlement and other mounds across the areas of Mainland, Rousay, Westray, Papa Westray and Sanday distinguished by skaill-names, mound-rich sandy bays and certain, probable or possible Viking-Late Norse archaeology. 29 certain or probable settlement mounds with Viking-late Norse phases were identified (Fig. 11.01; the 40 or so possible mounds have been excluded). The overwhelming majority were coastal mounds and on windblown sand: not less than 95% for both categories. Sanday had the most – 11 – all of which mounds were on windblown sand and all but one less than 300m from the coast (Table 7.01: nos 1-3, 15-17a and 19-22). West Mainland had nine certain/probable mounds, all of which were less than 300 m from the coast and on windblown sand (Tables 4.01, 4.03 and 4.05: nos 11, 20, 25, 42, 46, 70, 71, 74 and 77); Westray five, all of which were less than 500m from the coast and most on windblown sand (Table 6.01: nos 1, 4, 5, 15 and 80); Papa Westray one coastal sand-rich mound (St Boniface), and Deerness two, one of which was the only certain Viking-Late Norse settlement more than 500m from the coast (Table 5.01: nos 1, a coastal

sand-mound, and 5, Quoys, 650m inland). Finally, Rousay had two coast-edge mounds, both on windblown sand (Westness/Swandro and South Howe: p. 197 above). Another 40 or so possible settlement mounds with Viking-Late Norse phases were recorded, making a total of 69 mounds. The possible mounds followed the same pattern of being overwhelmingly coast-edge, or less than 300m from the coast, and on windblown sand. Of the 21 excavated sites, 11 were certain settlement mounds with Viking-Late Norse phases, and included in the group of 29 mentioned at the start of this paragraph, and eight were probable, while two were the Brough sites of Deerness and Birsay (Table 1.01). All the settlement mounds were in visibly prominent locations from which a range of other mounds could be seen. All the sandy bays were patterned with coast-edge and slightly inland larger mounds, and smaller mounds on higher ridges, spurs and summits or on damper ground.

The study of the skaill-areas characterised by skaill place-names, where the vast majority of excavated Viking-Late Norse sites have been discovered, added another dimension to this catalogue. The skaill-areas were notable for their strategic location and/or combination of most fertile agricultural land with access to the widest range of resources and often the best boat-landing places. Many of the mound-sites recorded in the first mound data set were identified through erosion, inevitably introducing a bias towards coastal sites. The analysis here of the distribution of skaill-sites, although predominantly coastal, discovered four or five further inland sites on Mainland, thus introducing an interesting category of Viking-Late Norse settlement on agriculturally worthwhile and/or strategically-located land, away from the immediately coastal area (Fig. 11.02).[1] These warrant further investigation.

The relationship of Skaill, Langskaill and other skaill-sites on coastal areas, as surveyed in Chapter Eight also demonstrated the settlement pattern was probably quite complex, with settlement mound-sites connected in "dispersed villages".[2] This was highlighted in the areas where excavation, and landscape-scale investigation, showed that two or three mounds may well have been occupied at the same time during part of the Viking-Late Norse period, linking coast-edge mounds and slightly inland

[1] None of these inland skaill-sites has yet been dated or excavated.
[2] Skaill and Langskaill names describe the building itself: the names with a directional/geographic descriptor added – slope, north, south etc. – are more likely to be subsidiary or later.

or bay-arm mounds in loose groups. This was the case in the Bay of Skaill and Marwick Bay (Mainland), around Tuquoy and Langskaill (Westray) and quite probably in Birsay Bay (Mainland), Rousay (Saviskaill Bay), Gairsay and around Quoygrew (Westray). The grouped/paired settlement sites are all inter-visible and overlook a shared topographical area of exploitation, encompassing within their view-sheds other mounds which needed incorporating into the mental landscape of their inhabitants. The coastal-sites were perhaps more concentrated on exploiting the sea, marine resources and sailing-routes, while the inland sites were more focused on controlling land resources. However, both aspects were needed for the full exercising of the "Central Place" skaill-role for that area.

The Skaill and Langskaill sites may also have connected with the earldom political structure in slightly different ways. The former were in the most dominant locations and perhaps the halls most closely connected with the earls' requirements and visits, while the latter – distinguished by their long hall – were more notable as local assembly places. One of the longhouse mound-sites in each skaill-area was probably, therefore, the dominant settlement, although that may have changed over time. It will be difficult to better understand such relationships until more mound settlements are excavated and dated. The excavated sites demonstrated the potential for local variability in other ways. For example, at Skaill (Deerness), Skaill (Rousay) and Tuquoy (Westray) coast-edge longhouse settlements were carried into the thirteenth and fourteenth centuries by the building of square tower structures. However, at Marwick Bay and the Bay of Skaill (Mainland) there were hints that coast-edge settlements were abandoned earlier in the Viking-Late Norse period, while the slightly inland longhouse sites carried on into the twelfth century on the Bay of Skaill, and to the present day on Marwick Bay. Finally, the coast-edge sites seemed more often to be built over prehistoric settlement and to perhaps begin earlier in the Viking-Late Norse period. The dating and contemporaneity or otherwise of the settlements is a continuing problem, but for certain none of these settlements were isolated longhouse-sites, rather they appear to have been elements in linked, complementary and locally-varied settlement complexes.

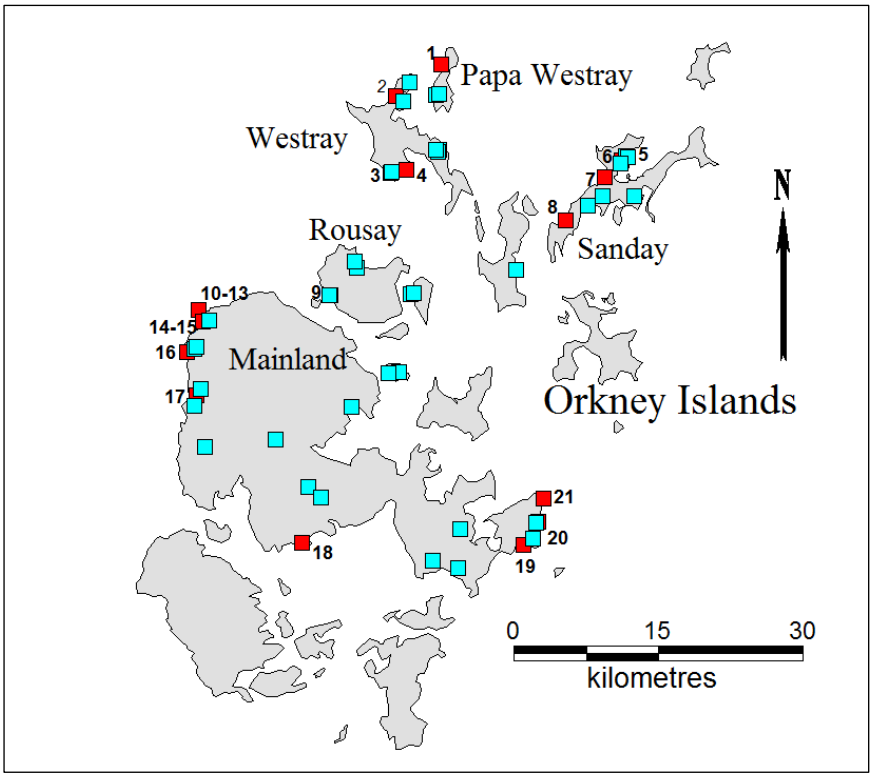

Fig. 11.02: skaill place-name sites in blue (Table 8.01) and all excavated Viking-Late Norse sites in red and numbered (see Table 1.01). Of the excavated sites outside skaill-areas, no. 18 Earl's Bu was a leading earldom site, socially above the skaill-sites, and no. 21 the Brough of Deerness also an exceptional site.

The mound-builders did not deliberately select active Pictish settlement for their new buildings in a Norman-style stamping of authority on the infrastructure of people usurped for the control of land. This research has shown that over half of the excavated sites were *not* built over later Iron Age settlement; and in Orkney (and the Western Isles) broch-mounds – usually with standing remains – and their extra-mural villages were actively avoided for settlement (Table 1.01).[3] This may have been partly because their locations – often on rockier headlands or inland – were not as attractive, but also because their architectural substance was less adaptable and too different. Otherwise, where immediately preceding Late Iron Age structures *were* settled onto it was typically after a hiatus in settlement, or after Iron Age buildings had been substantially levelled rather than pointedly incorporated. However, the nature of the archaeology – with layers frequently dug down into and with a high degree of residuality – meant it was often very difficult to be certain of the exact nature of that structural transition: evidence from Pool (Sanday) and Buckquoy (Birsay), for example, remains

[3] In the Northern and Western Isles only in Shetland at Jarlshof and Old Scatness (South Mainland) were brochs adapted for Viking-Late Norse settlement.

challenging to interpret. The two Brough sites – always a bit different – provide the most convincing evidence for direct take-over of immediately previous settlement. On the Brough of Birsay and perhaps on the coast-edge opposite, and probably on the Brough of Deerness, Pictish structures may have been more deliberately targeted for both buildings and burials. Pictish power centres – whether ecclesiastical or secular or both – were treated in ways that signalled a more rapid and decisive take-over.[4]

Some of the excavated mounds (between three and six) were built into earlier prehistoric settlement, but not all by any means. Rather than structures of specific periods, prominent sufficiently-sized *mounds* in strategic locations with wide views were settlement targets. The location of some buildings was influenced by specific assets; at Pool (Sanday), for example, by the proximity of an excellent natural harbour. Settlers must have been aware or have assumed that many larger mounds were people-built or -enhanced and that aspect increased their attraction. Such mounds had not been constructed by the settlers' own ancestors, but they were mounds that had acquired built-in significance, even if the Viking-Late Norse people had no clear idea what the mounds' bulk contained. Once a mound had been selected, all of the excavated mounds and many of the erosion-sections demonstrated that whether or not any existing – often initially hidden – midden and stone were re-used, all of the settlements progressed through several phases of rebuilding Viking-Late Norse structures on precisely the same spot.

The excavated Skaill (Sandwick) mounds and other re-analysed mound-sites showed that the decision to build such longhouse settlements on mounds brought with it a commitment to particular building techniques. As the settlements developed, sequences of Viking-Late Norse buildings were deliberately constructed on top of one another, whether available space dictated or not. And new elements of the mound complex were founded on, and encompassed, preceding buildings and accumulated midden-type material. This locational stability created continuities of construction and settlement tells

[4] It is also possible this evidenced a negotiated hand-over of authority, either way the archaeology suggests a more immediate and rapid transition of power whether that was aggressive or negotiated.

characterised by superimposed structural and organic layers. The history of building sequence and mound-growth was clearly evident in a narrative of mismatched walls, infilled buildings and spread and re-used midden.

Theoretical approaches helped interpret the settlement mounds (pp. 35-46). The building-techniques were existentially linked to an understanding of the symbolism of establishing a dominant central place: a place which made material the relationship of the people who lived on and around the mound with its settlement and landscape. Organic material collected and produced across the over-seen land and seascape was built into the mound's architecture, so weaving the settlement mound into a landscape acquiring new cultural meanings through the actions carried out across it. The midden-type material physically encapsulated events and actions, and on each occasion that the material was redeposited or incorporated those socially-significant moments and things were remembered. Each cycle of deposition and reuse emphasised the past and present role of the settlement mound in the social landscape.

These underlying mound-building principles of targeting visually dominant, people-made mounds; deliberate and extensive use of midden-type material for symbolic and practical reasons; and the referencing and incorporation of preceding Viking-Late Norse structures were identified by this study with different emphases across the North Atlantic. In this way symbols of the physical past of the settlement were carried forward into each new chapter of its use.

Mounds in the landscape

Scandinavian settlers arrived in Shetland and Orkney with ideas about how mounds as monuments were used to organise landscape. Burial mounds in Scandinavia served to advertise ancestry and associated land rights, and prehistoric burial mounds were widely re-used to emphasise authority and continuity. Scandinavians encountered landscapes in the Northern and Western Isles and in Caithness with many existing burial, burnt and settlement mounds – with and without visible structures. These

mounds had been raised by people whose past was not the settlers' so the actual contents of the mounds would have had less meaning, even where they were known. The mounds at Tønsberg in Norway – huge sepulchres constructed partly with turf and ash collected from across the surrounding region – had brought people from those areas together in the process of construction. Their later ascription by Snorri Sturluson as the burial mounds of the sons of Harald Finehair demonstrated that large mounds also had impact simply by being manufactured. The building process and content of the mound were powerfully meaningful at the time of construction, but the mound-shape itself could subsequently carry many different messages, and messages that might change over time.

The range of manufactured – or apparently manufactured – mounds in Orkney indicated to settlers that these were already landscapes with history. Incomers had to incorporate these meaningful mounds into their own settlement landscape: to translate the landscape language of the mounds. The results of this study have demonstrated how well-placed settlement-size mounds were appropriated for the creation of sites whose construction narrative went on to emphasise continuity and social organisation. The burial and burnt mounds seen from the mound settlement sites would gradually over time be woven into the new working landscape, perhaps as markers of routes, fields and grazing-areas, and into seascapes as guides for sailors and fishermen. They acquired metaphysical significance in histories established and represented by the settled mounds.

However, prehistoric burial mounds were not re-used for burial by the Viking-Late Norse settlers, partly as adoption of Christian forms of burial seems to have progressed rapidly, but also because, against a background of determined and substantial settlement (rather than as in England in the context of a roving army followed by settlement amidst other populations), it seems that the most relevant targets for burial were abandoned *buildings* – including brochs and other prehistoric, and Viking-Late Norse, settlements. This practice further underlined that the surrounding settlement landscape had been acquired for the descendants of the interred. Exceptions to the general pattern seemed to occur in the main power centres: the only burials apparently made over *burials* were inserted above earlier cists

in Birsay Bay and possibly the Bay of Skaill (Mainland). However, even those, when closely investigated, seemed as much intended to re-use settlement remains and indeed midden as the already obscured burials.[5] These burials into settlement-related midden, as at Brough Road (Birsay) would have linked ancestors to past events represented by the accumulated deposits, and to the vitality of on-going events.

Building social structure into the landscape

Landscapes was organised to reinforce the Viking-Late Norse social structure as well as support the economy. Although settlement needed to be relatively dispersed to ensure a reasonable share of resources, the economy also relied on collaboration: for fishing, raiding and trading; for building structures; for harvesting and ensuring herds stayed healthy. As the earldom became established, local areas also needed to co-operate to meet obligations imposed by the *veizla* system – responding to demands for tax-in-kind and hospitality from earls and leading men as they toured with their entourages. Each area required a meeting and decision-taking place, and a settlement with the capacity to expand and accommodate and feed visiting people and their horses. Longhouse settlements on mounds acted as these local "Central Places", providing a hall-space suitable for feasting and discussion, and in many cases outbuildings, and perhaps also buildings on nearby settlement mounds, that might be adapted for temporary storage, housing and stabling.

The visually dominant halls on mounds – like those discovered at Skaill (Sandwick), Skaill (Deerness) and Westness/Skaill (Rousay) – signified both the benefits of communal effort and the demands of the ruling elite. Their inhabitants may literally as well as visually have commanded the resources of the shore and sea, and the people, they overlooked. The Central Place catchment area reached as far as the mound and its hall could see/be seen. Skaill-sites were far from "huts", but rather sites that ordered the local social landscape and represented and reminded of the organising structures of the earldom.

[5] It is difficult to be completely certain how apparent the earlier burials were when the locations for later internments were chosen. The Brough Road burials (Birsay) for example appear to be part of an extremely complex sequence as much characterised by settlement as burial.

Settlement mounds and midden

The mound-sites analysed in this study reflected sophisticated and locally-rooted social structures, supported by broad-based economies well-adapted to the local environment and exploiting networks of contact across the North Atlantic. The ways in which mounds were built-up, and the materials used in that construction, were also critical to the creation of Scandinavian settlers' own mental and social landscape. This process drew on both the practical qualities and symbolic attributes of midden-type materials.

All the excavated sites were built such that superimposed elements of previous Viking-Late Norse structures created a physical history of living and building on the site. The midden-type material used for infilling buildings and wall-cores, creating floors and surfaces, shaping mounds and curated around the settlement were in effect "deliberate deposition". The materials involved acquired their own symbolism: ash recalling cooking and metal-working fires; bone and shell recalling feasts; byre-waste, the ownership of animals; fragments of artefacts, their use and links to personal identity; turf, the repair of walls. These materials also called to mind activities carried out across the land/sea-scape surrounding the mound-site – "taskscapes" in Tim Ingold's thinking – the products of which were brought to the mound. Then, as it accumulated, midden-type material represented the length of time people had collected turf, cared for animals, fished the sea and farmed the land. And, unlike the remains of earlier settlement, these meaningful deposits were created *by* Viking-Late Norse people. They were building the history of their inhabiting and exploitation of the land into the settlement. The settlement mounds in the landscape told a complex story – they were not disfigured by piles of rubbish but structured by purposefully applied meaning-rich deposits. A large mound monumentalised the endeavours of a successful community and stood for its powerful inhabitants' control over resources.

Settlement change in the twelfth century

The initial phase of settlement in Orkney remains difficult to discern archaeologically, partly because of dating and taphonomic problems, but it may have been that the first arrivals constructed more

temporary buildings, or took on existing buildings with few alterations for a relatively short time. In any case this was a time during which the character of settlement had yet to be established. As the earldom and local Viking-Late Norse leaders became established the settlement character emerged. There were major earldom sites such as Earl's Bu and the Brough of Birsay, but most of the islands were mentally and physically structured around *skáli*-type settlements on mounds.

Settlement mounds were thus key components in the social landscape during a particular and relatively short period from around the ninth to twelfth centuries. This time was shaped by chieftain-type societies and peripatetic leaders. During the twelfth century, social organisation and governance began to change and the skaill-sites lost significance. In Orkney, ecclesiastical and secular power was increasingly centralised in the developing town of Kirkwall and the exploitation of the landscape increasingly specialised and organised on feudal lines (Thomson 2008b). This is the time at which longhouse-focused mound settlements were abandoned or radically altered – were rebuilt as "castles", or became render-collecting or other specialist farms. The abandonment of the rest was not driven primarily by the Little Ice Age downturn in climate that brought increased storminess, unsettled weather and cooler summers. New research has established that this period began relatively abruptly at the end of the thirteenth century and intensified in the mid-fifteenth century (Miller et al. 2012, 1). The longhouse form and the symbolism of the midden-reliant settlement mound had fallen out of favour before the Little Ice Age really had an impact. The regions in which farm-mounds continued to dominate the settlement landscape – Iceland and Northern Norway – are those characterised by turf architecture. It seems that in these places, as society changed, the turf farm-mounds continued as symbols of very local agricultural status in rather more expansive, dispersed settlement patterns.

For around 300 years mound-sites and *skális*, built around structural narratives and midden symbolism were the organising central places of a highly successful settlement enterprise. These powerful tenets emerged in local variants across the North Atlantic. They remind us of the importance in the Viking-Late Norse period of the role landscape, and settlement in landscape, played in establishing new identities across the Viking diaspora.

Gazetteer of Skaill-sites in Orkney (see Table 8.01): site-visit reports and descriptions of all sites not covered in the main text

Langskaill, Harray (Mainland): Table 8.01, no. 6 (nos 1-5 covered in Ch. 4)

Fig. S1.01: Langskaill in Harray marked by a red square, all other skaill-sites by blue squares.

This Langskaill site is one of the five inland skaill-sites, which occur only on Mainland. It overlooks the Loch of Harray on a mound north of a major burn and the site of the late-nineteenth-century Grimeston (Fursebreck) threshing mill (Canmore ID144873); Langskaill was on the 1882 Ordnance Survey map. Just over a kilometre to the south-west is the site of St Mary's Kirk (Canmore ID2147). On a small promontory jutting into the Loch is a low, grass-covered mound which was believed to represent a broch and the remains of St Mary's chapel; no foundations are visible now but they were described as being about 12m by 4m with a possible apse or chancel.

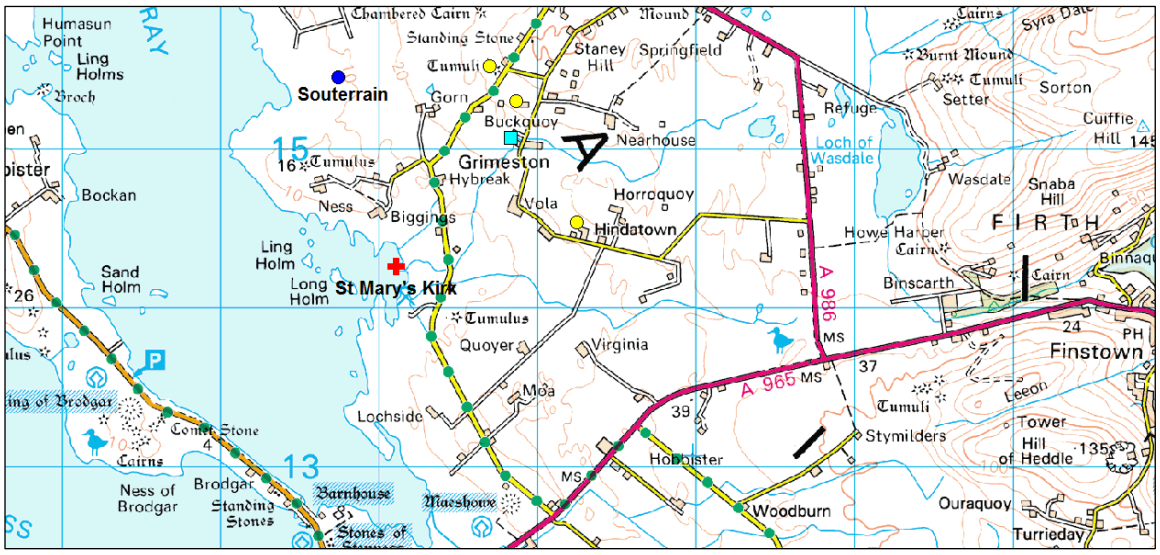

Fig. S1.02: the blue square marks Langskaill; the yellow circles cists and barrows.

There is no known/possible Viking archaeology in the area but the farm of Biggings lies a kilometre south-west, and cists and barrows line the ridges and crests surrounding Langskaill (for example: Canmore IDs 2056, 2058, 2120; Fig. S1.02). A souterrain under a low mound was excavated in 1928 north-west of Biggings (Canmore ID 2019). Two kilometres south is the extraordinary collection of prehistoric archaeology around the Ness of Brodgar, Stenness, Barnhouse and Maes Howe.

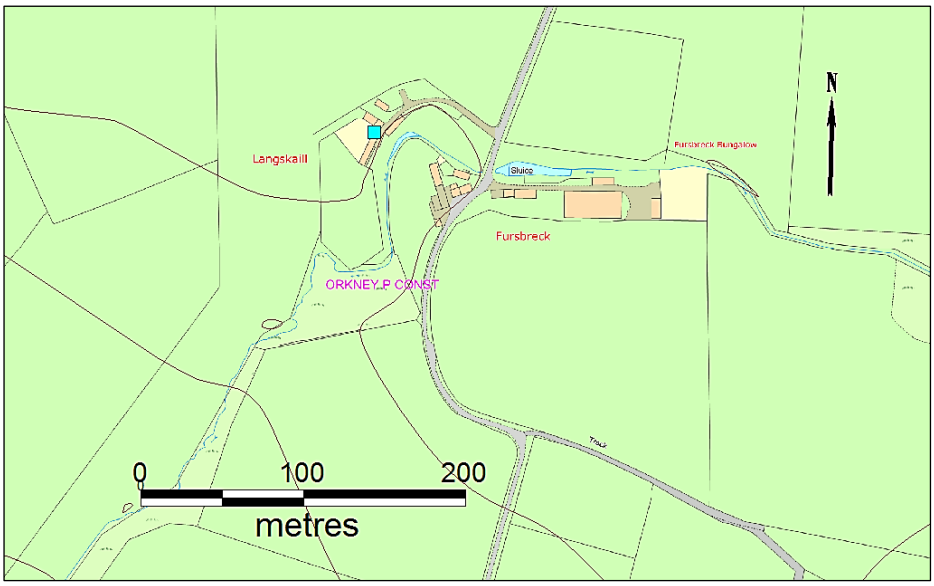

Fig. S1.03: Langskaill, Harray.

Langskaill is also in an area of mapped deep topsoil (p. 114) and, although the accumulations have not been dated, their presence may indicate a long-lived and significant settlement.

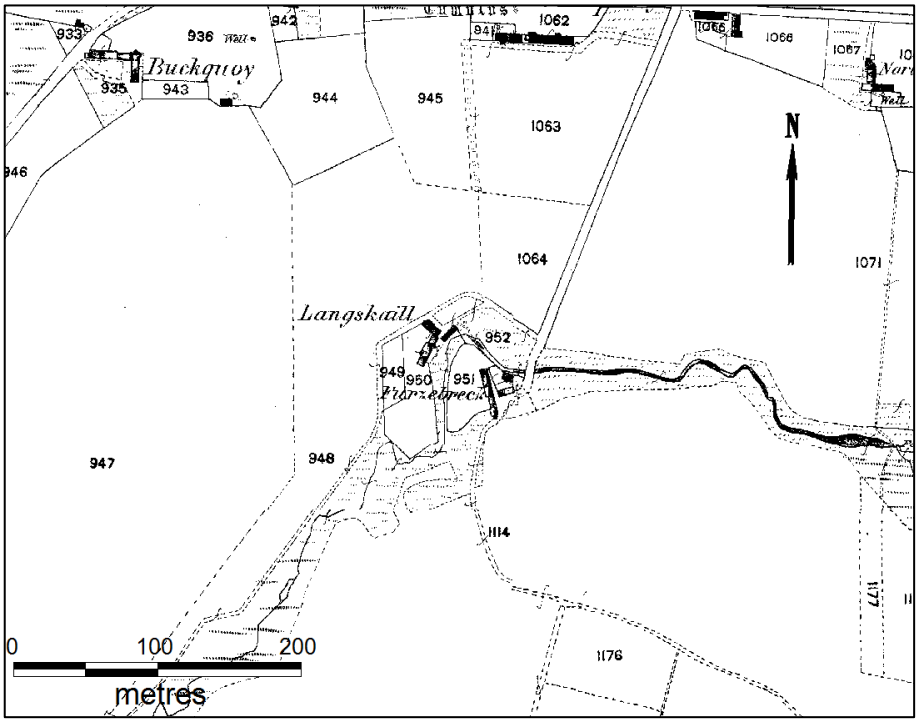

Fig. S1.04: Langskaill, showing the site opposite the mill of Furs(z)ebreck/Grimeston on the burn.

Fig. S1.05: Langskaill, Harray today © GoogleEarth.

Langskaill, Stromness (Mainland): Table 8.01, no. 7

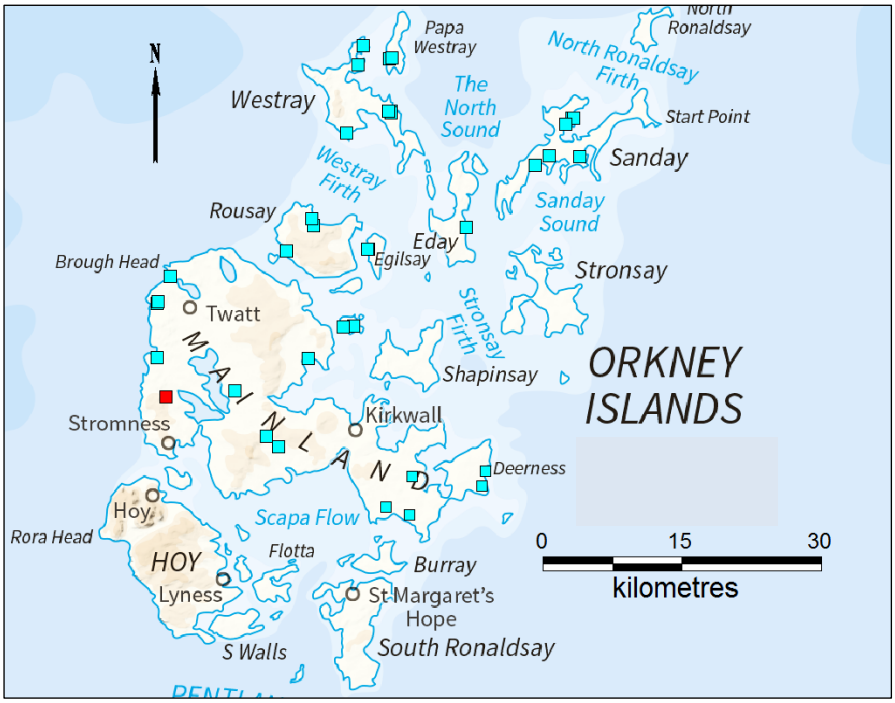

Fig. S2.01: Langskaill in Stromness marked by a red square, all other skaill-sites by blue squares.

This Langskaill site is another of the inland skaill-sites on Mainland. It overlooks the end of the Loch of Stenness lying on a hillside by a burn which flows past the puported location of Kirkbister Chapel 350m to the north-east (Canmore ID1758); Langskaill was on the 1882 Ordnance Survey map (Fig. S2.04). The chapel founded by the fourteenth century had disappeared by AD1880: no remains are visible today.

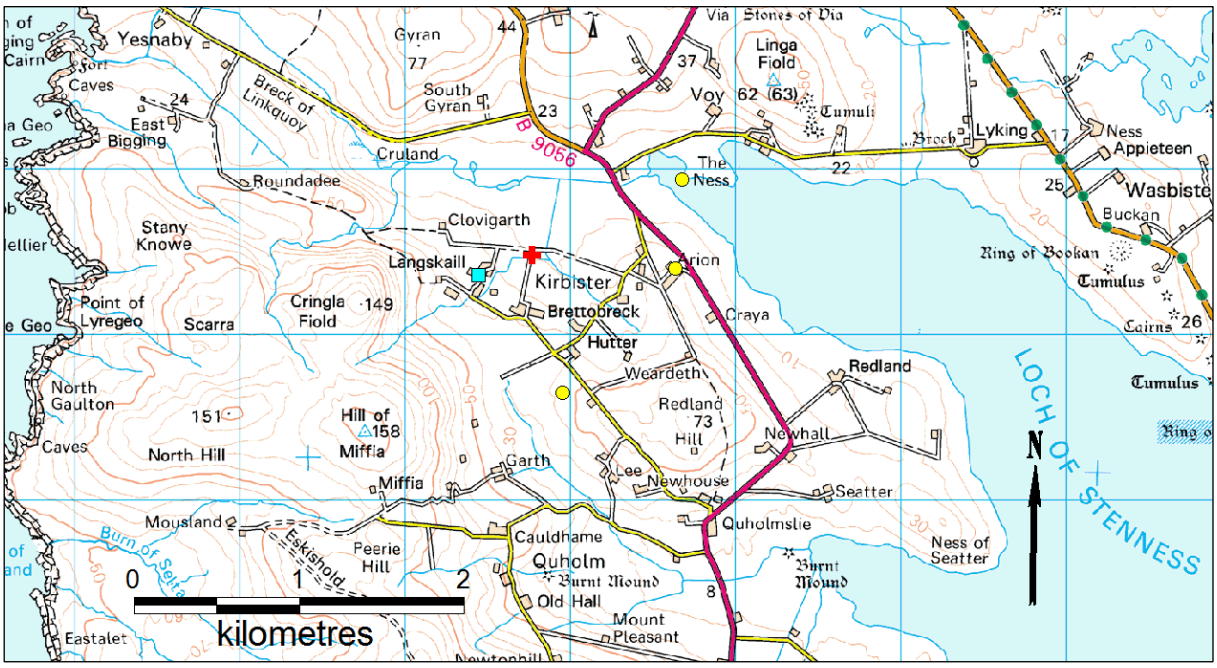

Fig. S2.02: the blue square marks Langskaill; the yellow circles cists and barrows.

There is no known/possible Viking-Late Norse archaeology in the area but cists and barrows lie on crests east and south of Langskaill (for example: Canmore IDs 1711, 1728 and 1760; Fig. S2.02).

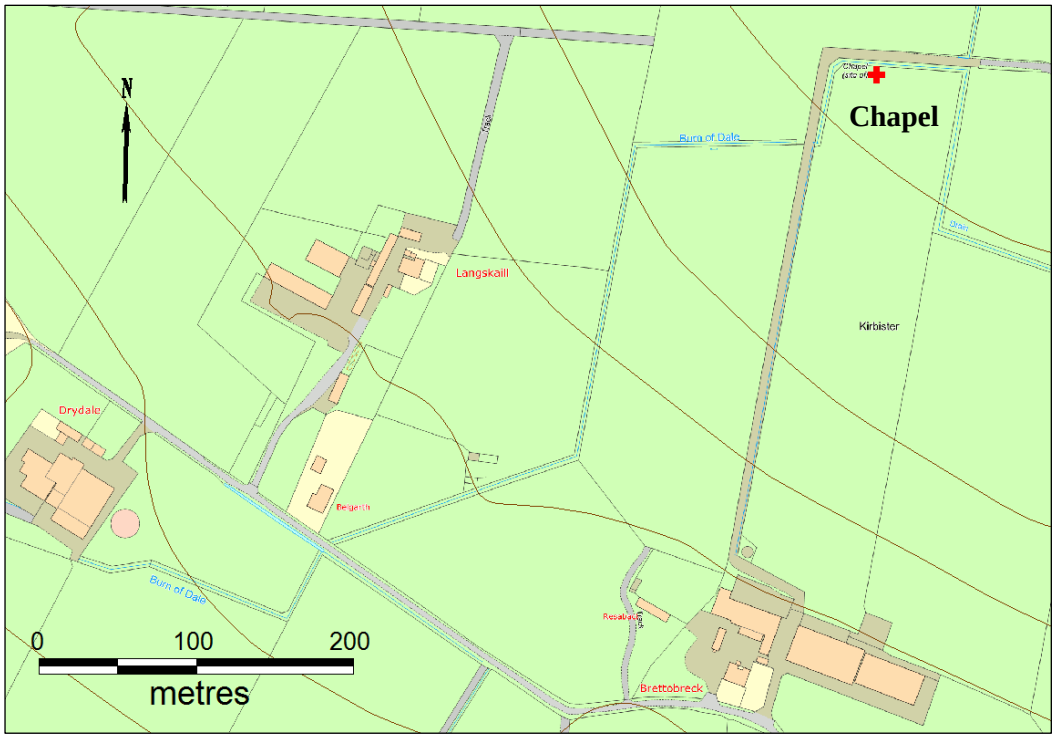

Fig. S2.03: Langskaill.

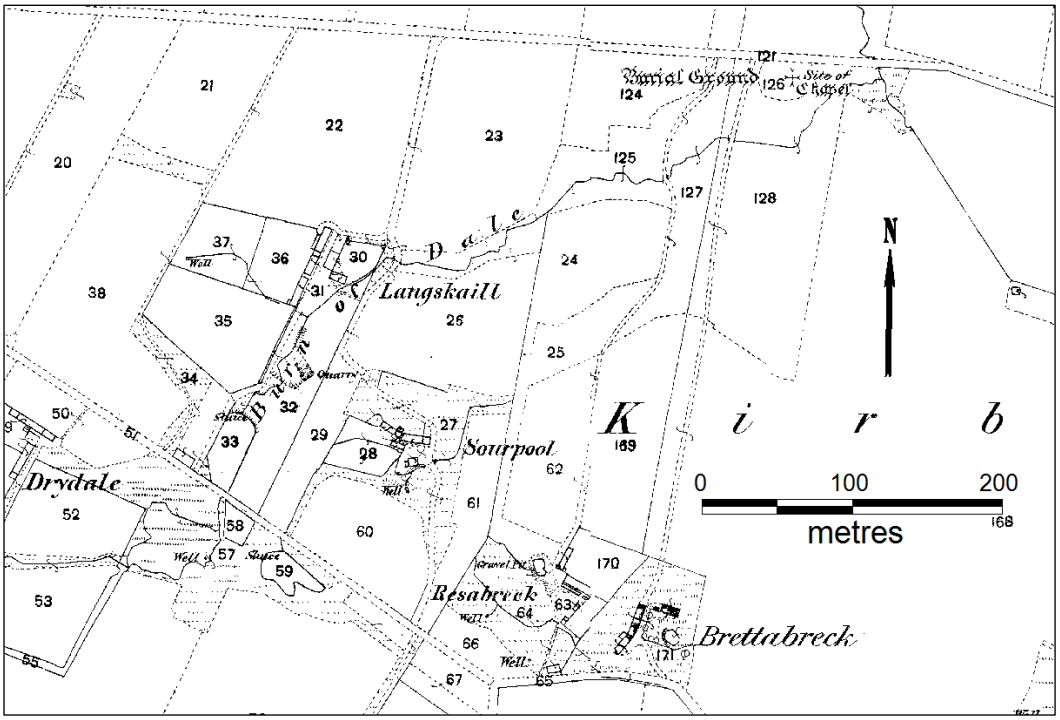

Fig. S2.04: Langskaill, showing the site of Kirkbister Chapel to the north-east.

Fig. S2.05: the mound of The Ness looking south-east (Canmore ID1728).

Fig. S2.06: the modern farm of Langskaill, looking north-east.

Fig S2.07: the remains of the farm of Sourpool 100m south-east of Langskaill.

Skaill, Rendall (Mainland): Table 8.01, no. 8

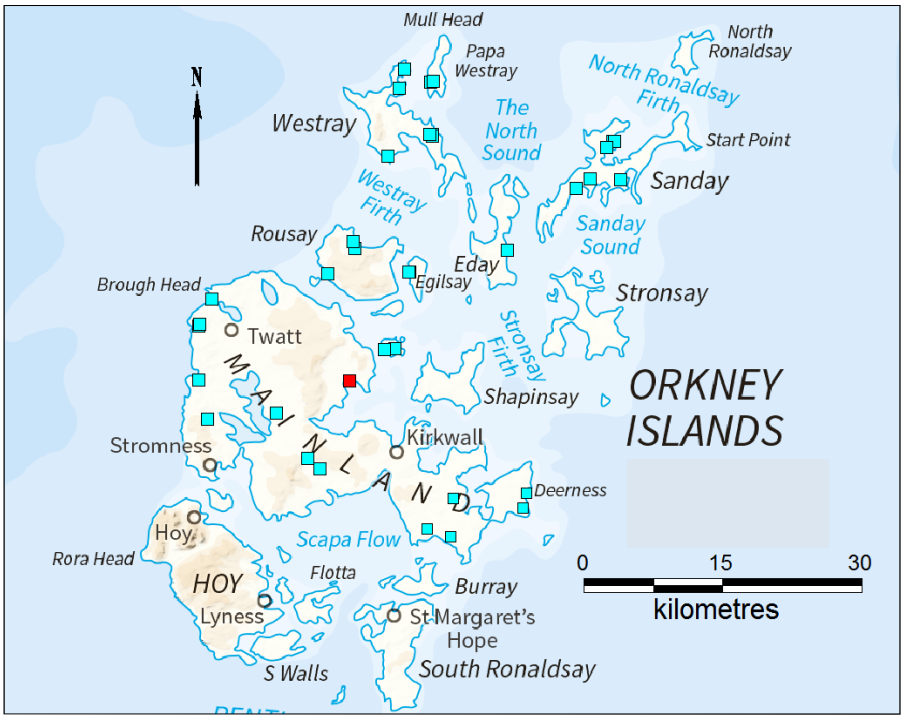

Fig. S3.01: Skaill in Rendall marked by a red square, all other skaill-sites by blue squares.

The skaill-site in Rendall is on the Bay of Isbister, looking across the approach to Damsay and the Bay of Firth. Still a working farm today, Skaill is also on the 1882 Ordnance Survey map. The coast-edge on which the farm is located is not sandy but a combination of wave-cut platfroms, mud and cobble beach; however the buildings themselves seem to sit on a drift of windblown sand. Short stretches of shell-rich and possibly anthropogenic deposits were seen in the eroding coastal section on the eastern arm of the Bay (centred on HY3996 1850; author survey May 2014).[1]

Fig. S3.02.: looking south-east across the Bay of Isbister with the barn of Skaill farm on the left and the culverted burn in the foreground.

[1] The weather was so wet and windy that taking a reasonable photograph was not possible.

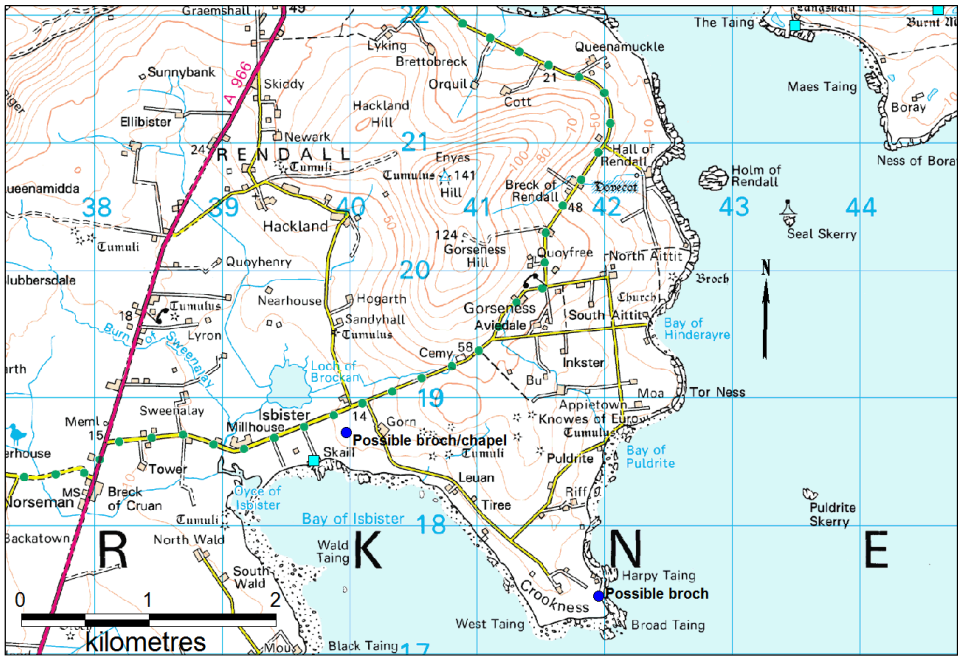

Fig. S3.03: the blue square marks the skaill-site; the blue circles possible brochs. The one nearest to Skaill is reputed also to be a chapel site.

300m north-east of Skaill is the site of a possible broch, reputedly re-used to build a circular chapel: St Mary's Kirk (Canmore ID1990). Farmers working the land around the site have reported human bones beneath flagstones, whale-bone, possible gravestones and midden-type material, but nothing is known for certain about the site. A large grassy mound out on Crookness may also conceal the remains of a broch (Canmore ID 306761). Both west and especially east of Skaill the slightly higher ground is strewn with barrows (Canmore IDs 1984, 1997 and 2423).

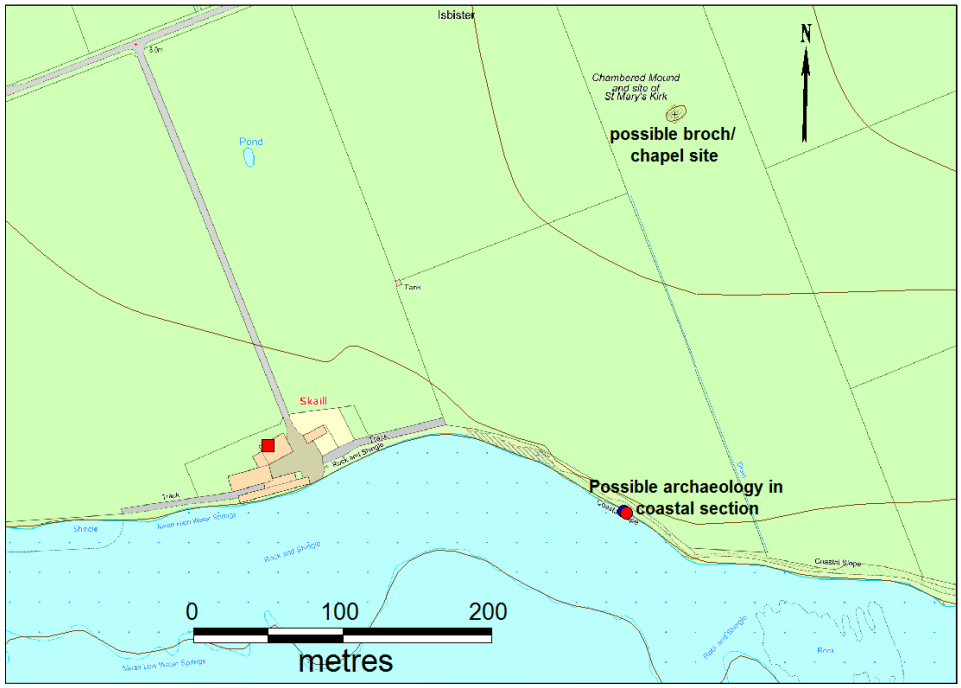

Fig. S3.04: Skaill with the possible broch/chapel site and the midden exposure (blue/red circles).

Fig. S3.05: Skaill, Rendall, with the possible broch/chapel site visible to the north-east © GoogleEarth.

Skaill-sites, Gairsay: Table 8.01, nos 9-10

Introduction

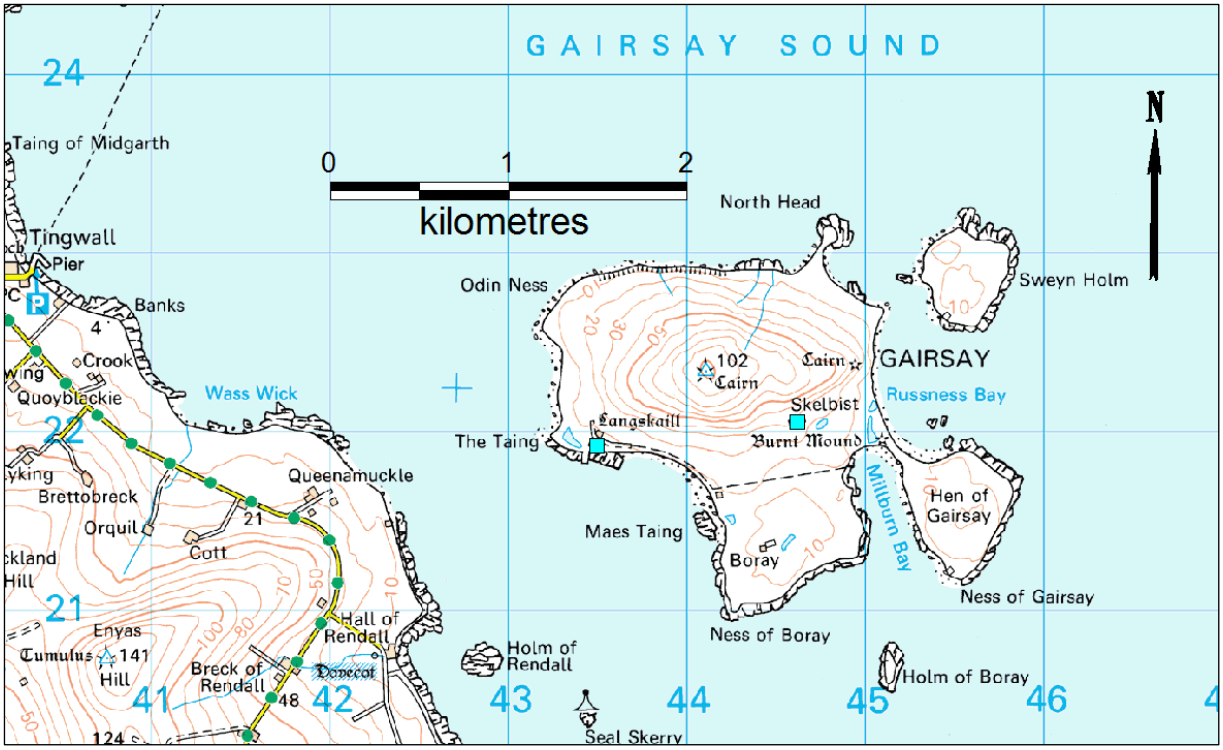

Fig. S4.01: skaill-sites marked by blue squares; Langskaill is inter-visible with Tingwall to the north-west.

The estate of the great, "last" Viking of the *Orkneyinga saga*, Svein Asleifsson, was on Gairsay (Pálsson and Edwards, ch. 82, 149). Svein fostered Earl Harald Maðardsson's son Hákon on Gairsay, and the young man soon joined Svein on his summer Viking expeditions, described in the often-quoted chapter of the saga outlining Svein's lifestyle. All winter Svein entertained 80 men at his own expense in a drinking hall – *langskáli* – 'so big, there was nothing in Orkney to compare with it', using loot to supplement his revenue from the land (ibid. ch.100, 207; ch.105, 214-5); he then personally supervised the spring seed-planting before setting off to plunder the Western Isles and Ireland, returning to see to harvesting, as a prelude to a lengthy autumn raid. Svein entertained Earl Harald on Gairsay at a magnificent feast, no doubt plying him with drink acquired on the trips (ibid. ch. 106, 216). The location of Svein's longhouse on Gairsay is not known for certain but may be close to and/or part of the late-seventeenth-century "castle" of Langskaill (HY4347 2196). The castle building once enclosed three sides of a courtyard. Only the east range, where the current owners of the island live, and part of the elaborate southern screen wall, survive (Fig. S4.02).

Fig. S4.02: Langskaill looking north-east: the screen wall.

Gairsay is very well-located to be the lair of a Viking-chief: commanding the Sound giving access to the eastern islands and guarding the approaches to northern Mainland. Tingwall – presumably the location of an important Thing meeting-place, and where other important saga characters were based – Wyre, Egilsay, Rousay, Eday, Shapinsay and the area around Kirkwall are all visible from the island. Although Gairsay is small, 2.5km west-east by 2km north-south, and the north is dominated by a rounded hill 102m high, even today it is a good place to rear sheep and cattle. Lying close to Mainland, Rousay and other islands, Gairsay is both isolated but easily accessible to sailors. Milburn Bay is an excellent landing-place, with a deep channel approaching within a few metres of a sand and shingle beach and natural rock jetty at the head of the inlet (Fig. S4.04).The modern jetty is built out from a small sandy beach just south of Langskaill. In the Viking-Late Norse period, at least in the winter feasting season, there must have been well over a hundred people living on Gairsay. A second skaill-name on the island is another possible location of a contemporary building: Skelbist (HY4460 2206).

Fig. S4.03: Gairsay from the sea, looking east, Langskaill is on the right.

Fig. S4.04: Millburn Bay looking south-east.

The skaill-sites

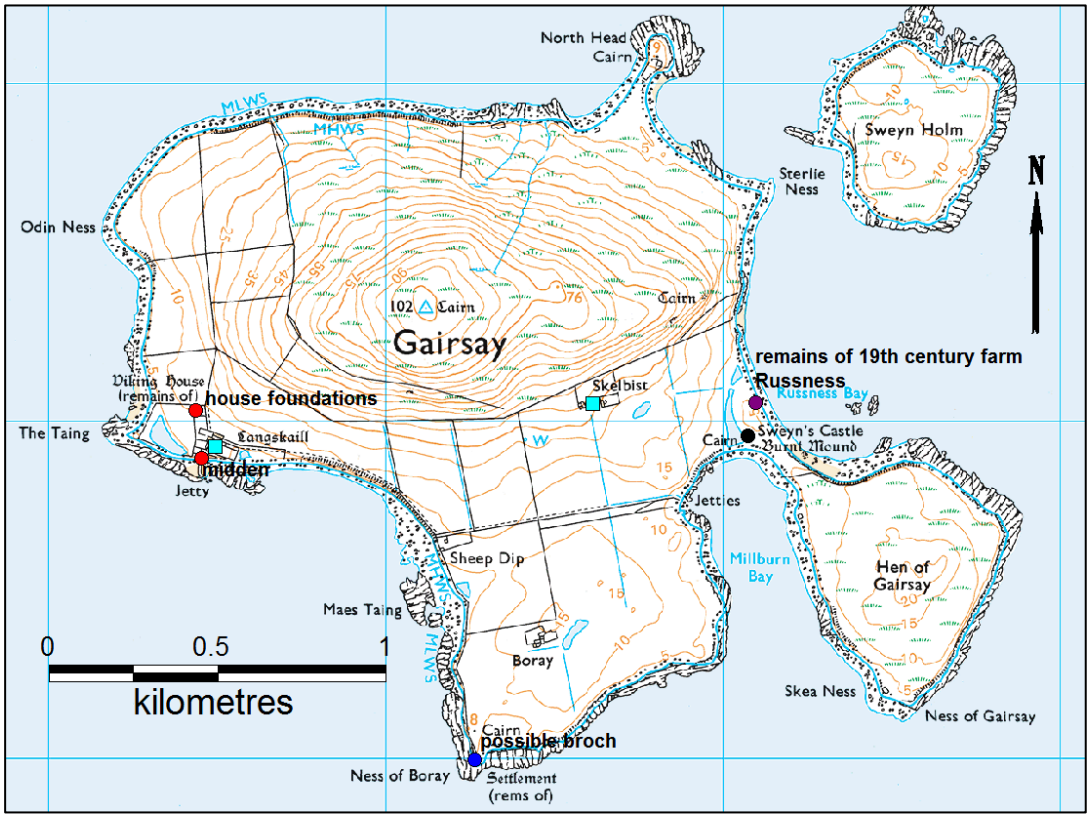

Fig. S4.05: mounds around the skaill-sites.

The skaill-sites lie within 1.1km of each other: Langskaill just behind the coast and Skelbist ON *skáli bolstaðr* (‘hall’, ‘dwelling’) on the hill-side to the ENE. Both are on the 1882 Ordnance Survey map. At Langskaill the “castle” may incorporate earlier structures and sits on a low broad mound (Fig. S4.07): midden-type material was recorded in the low section by the jetty just to the south.[1] About 120m to the north-west of the modern farm, in a near-square enclosure 30m^2 planted with trees in the last thirty

[1] Canmore ID2692: kitchen midden of shells and domestic refuse noted alongside the landing pier at Langskaill.

years, are the remains of a structure described in 1960 by F. T. Wainwright as: '… a Viking house – may be Svein Asleifsson's Hall. The Hall is approximately 50' (15m) long and 25' (7.6m) wide: no stone is visible, but a clear boat-shaped bank marks tumble of walls'.[2] Nothing has been found to date the remains.

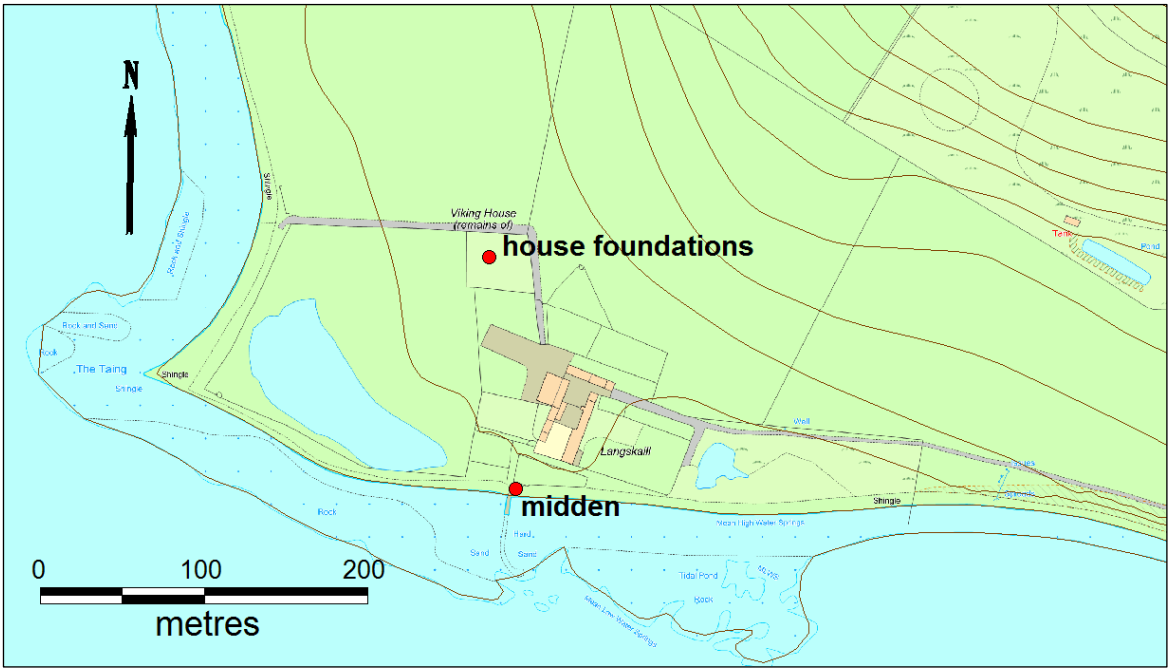

Fig. S4.06: Langskaill.

In the early 1970s the site was described as a 'building foundation with rounded ends marked by a grassy bank spread to 3m', and measuring about 15m west-east by 8.5m: no stonework was visible. The most recent Canmore record concludes by noting: 'Two thirds of the way along from the west the bank contracts at both sides giving a width of 6.5m, and resembling a nave and chancel in plan'; raising the possibility that the remains are those of a small chapel (Canmore ID2693). The foundations as described are perhaps too small to represent the remains of a "mighty drinking hall", although the 'hall' elements of many longhouses are about 10-15m long. The location certainly provides excellent views: across to Tingwall, Wide Firth and the Kirkwall area. Only excavation would provide more information on a site which must be being gradually compromised by the growth of vegetation.

[2] Nothing is visible in this area on the 1882 Ordnance Survey or later maps although the northern and western sides of the enclosure are extant; the 1946 RCAHMS visit had recorded a sub-rectangular mound of about the same size as that noted by Wainwright but with no visible stonework. However it was reported then that whenever the surface was broken midden-type material of bone and shell was revealed: Canmore ID2693.

Fig. S4.07: the Langskaill 'house foundation' site looking north-east from the shore; the farm is on the right. The site is within the vegetation in the centre of the photo.

Fig. S4.08: Langskaill from the air showing the enclosure north-west of the farm under vegetation © GoogleEarth.

Skelbist comprises the shell of the farm recorded on the 1882 map: the remains are directly comparable to the nineteenth-century building outline, with a modern barn added to the east (Fig.S4.09).

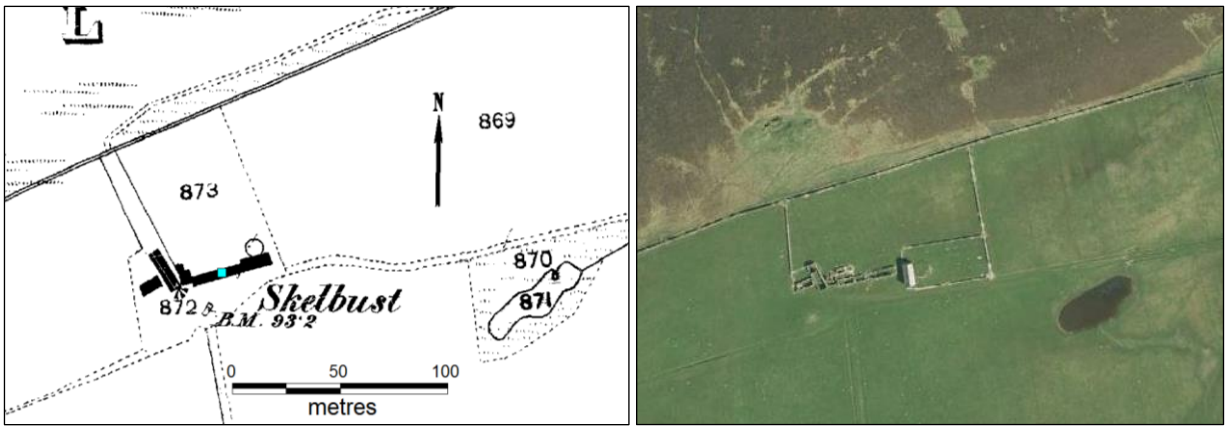

Fig. S4.09: Skelbust/Skelbist on the 1882 map to the left; Skelbist from the air on the right © GoogleEarth.

There are relatively few other recorded archaeological sites on Gairsay. Several are of old farms; this scattering of deserted agricultural dwellings and their enclosures suggests a fairly rapid and dramatic depopulation in the nineteenth century (including Skelbist, Russness on the east coast – see below – and Boray: Canmore ID307375). In the late-nineteenth century Boray was a large farm with many outbuildings, the ruins of which stand on a notable mound by a small lochan with, 400m SSW, a possible broch. The latter site might plausibly be multi-period, including a Viking-Late Norse element.[3]

Fig. S4.10: Sweyn's Castle, probably a large burnt mound, looking south-west.

The narrow neck of land joining the Hen of Gairsay to the main island is dominated by a large, probable burnt mound lying by a fresh water lochan and marked on the 1882 map as Sweyn's Castle (Fig. S4.10).[4] Just 100m NNE an uneven grass-covered platform about 35m by 15m is all that remains of the farm of Russness: walling and black organic deposits are visible in the eroding coast edge (Figs S4.11-12). Nothing suggests either of these sites is Viking-Late Norse.

[3] A minor excavation at the site in around 1928 reportedly exposed a short stretch of drystone walling. At various times since walling remains and shell-rich, kitchen-midden deposits containing 'broch' pottery have been recorded in the erosion section on the coast. Early RCAHMS reports suggested substantial remains of masonry underlying the turf just to the north of the section and the possibility of a rampart and ditch enclosing the site. Although the remains cannot be classified they are suggestive of a broch/large roundhouse and surrounding buildings. Much has been lost to erosion (Canmore ID2690; author survey 2015).

[4] The mound is max. 15m long and nearly 3m high and decidedly crescent-shaped with a very uneven grass-fast surface. Raymond Lamb reported burnt stone in the mound: none was visible in 2015 (Canmore ID 2670; author survey 2015).

Fig. S4.11: Russness and Sweyn's Castle on the 1882 map on the left, with both sites just visible from the air on the right © GoogleEarth 2008.

Fig. S4.12: the remains of Russness farm in the coastal erosion-section, looking north-west. Both the section and the grass-covered remains behind the section suggest this site is most likely a single phase of post-medieval settlement.

The wider settlement context

Without further archaeological investigation only the remains of the nineteenth-century farms give any idea of the number of settlements that might have covered the island in the Viking-Late Norse period.[5] Svein's longhouse may have been on the large mound, part of which is now topped by the "castle" (Fig. S4.13); there may have been other dwellings at/near Boray, Skelbist and the Ness of Boray. It would certainly be worthwhile conducting geophysics in these areas, as well as north and south of the wall running west from the head of the Bay of Milburn where there are two slight sandy mounds in classic locations for Viking-Late Norse settlement.

[5] The hill comprising the northern half of the island is topped by a cairn with another on the spur to the east (Canmore IDs 2681 and 2683) and these cairns represent the only significant sites not discussed in the text.

Fig. S4.13: Langskaill, looking near ENE, showing the broad mound on which both the seventeenth-century building and the Viking house foundation are sited.

Skaill-sites, Orphir (Mainland) Table 8.01, nos 11-12 (nos 13-14 are discussed in Ch. 5)

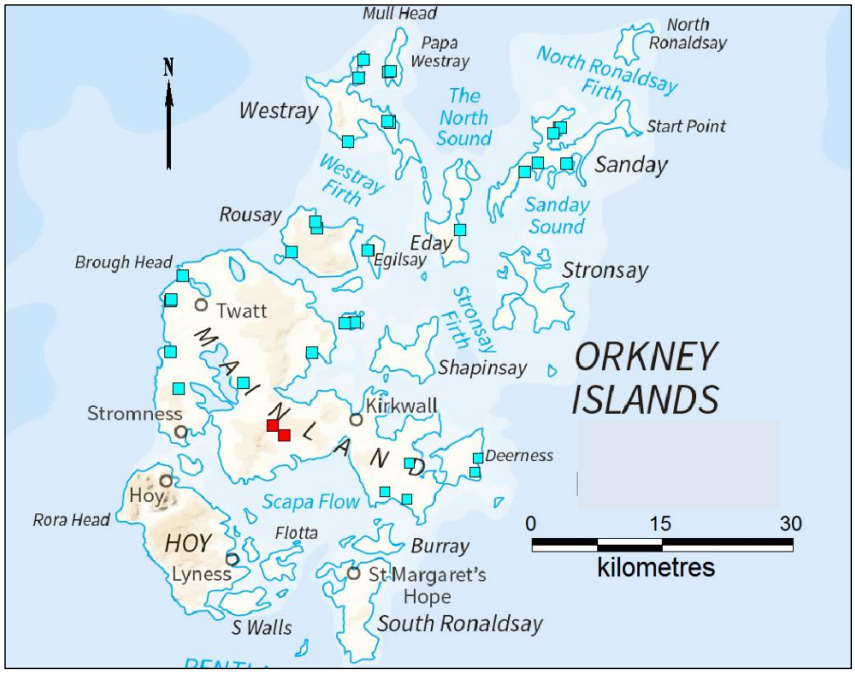

Fig S5.01: skaill-sites in Orphir marked by red squares, all other-skaill sites by blue squares.

These skaill-sites are two of the five inland skaill-sites on Mainland. Skaill (HY3526 1021) lies alongside the road linking the lochs of Harray and Stenness to the north-west, to the Loch of Kirbister and Waulkmill Bay to the south-east; also to Skaill's south-east Skelbister (Skaillbister) overlooks the Loch of Kirbister (HY3650 0906). Two logical land-routes join north-west Mainland to Orphir to the south: one runs run alongside the southern coast, the second overland between Ward Hill and Keelylang Hill, close to Skelbister and past Skaill (Fig. S5.02). That route is the shortest between Orphir and Birsay, both high-status locations in the Viking-Late Norse period.

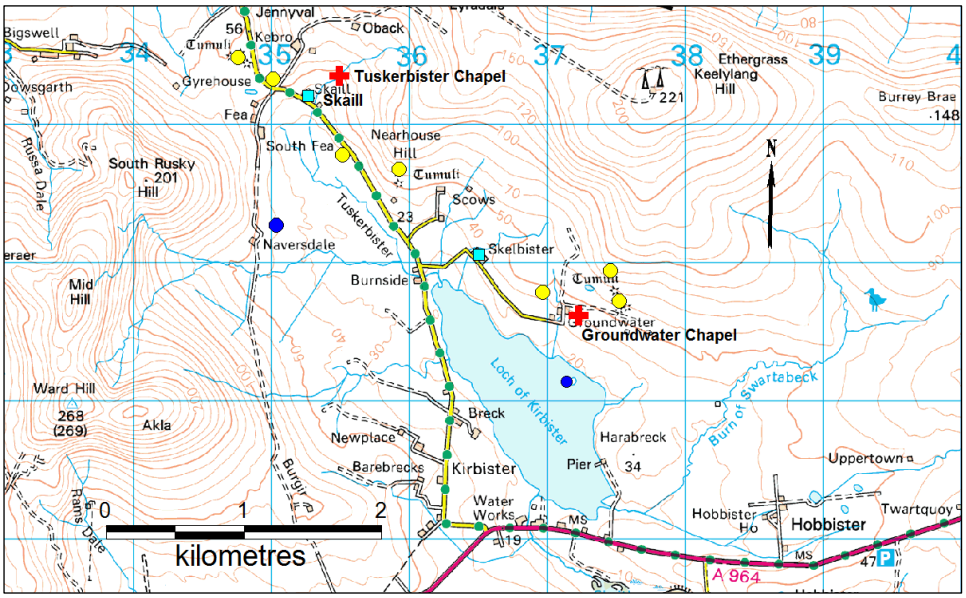

Fig. S5.02: the blue squares mark the skaill-sites; the yellow circles cists and barrows; the blue circles possible prehistoric settlement.

Skaill is situated 1.6km north-west of the Loch of Kirbister with a view across the Loch to Scapa Flow beyond (Fig. S5.03). In the *OSA* Reverend Liddell claimed that a chapel and burying ground, apparently recorded in *Orkneyinga saga*, could be seen at (Obah/Oback) Tuskerbister, but nothing remained of a place where 'several of the ancient counts of Orkney' had lived (HY3548 1035; Canmore ID2091; Sinclair 1791-9, Vol.19, 417). A small, barely perceptible, grass-covered platform is all that remains of the possible chapel, with some large stone occasionally visible in the side eroded by the burn running down to Skaill (Fig. S5.04).

Fig. S5.03: the view from Skaill to the Loch and the sea, looking south-east.

Crest and ridges along the route past Skaill are marked by collections of burial mounds and cist burials: on a crest 300m north-west seven mounds were recorded and a little further in the same direction were up to a dozen mounds, some of which survive (Canmore IDs 2090 and 2100). Other disappeared cist-burials have been noted in the vicinity (Canmore ID2061) with a souterrain at Naversdale (Canmore ID1927). However, no possible Viking-Late Norse archaeology has been found.

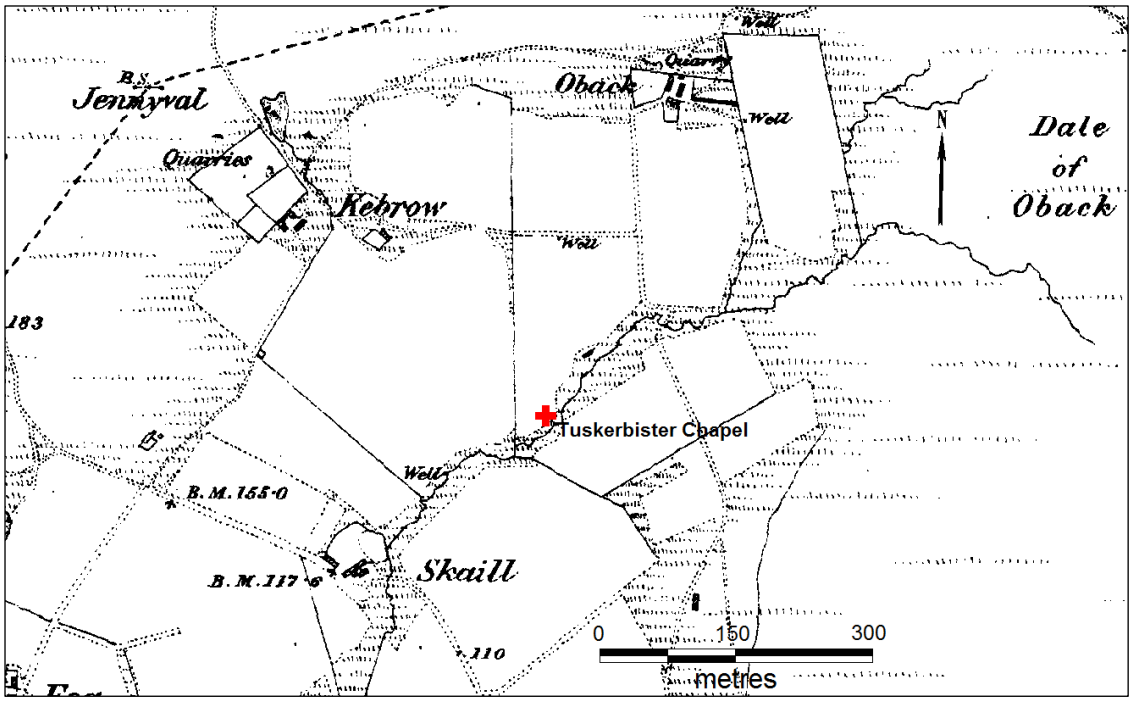

Fig. S5.04: Skaill on the 1882 map with Oback top centre and the site of the 'Chapel' in the centre.

Skelbister ON *skáli bólstaðr* (‘hall’ ‘dwelling’) lies 300m north-east of the Loch shore at a similar height to Skaill with a reputed chapel sited 750m to south-east at Groundwater: the remains of a building were reported in the eighteenth century, surviving today as an irregular stony rise in the field west of the farm (Canmore ID 1950; Fig. S5.05). Although no Viking-Late Norse archaeology is reported, the site is surrounded by barrow groups: two north-east of Groundwater farm (Canmore IDs 1932 and 1951); one just north-west (Canmore ID 1938) and six mounds on a false crest on Nearhouse Hill, half-way between Skelbister and Skaill (Canmore ID 1949). Finally, on the small Holm in the Loch of Kirbister, 500m south of the chapel-site, lies an investigated grass-covered, oval-shaped structure about 9 by 7m within a possible enclosure (Canmore ID 1952).

Fig. S5.05: Holm of Groundwater with structural remains visible is bottom centre; the chapel-site is in the top of the field right of the farm © GoogleEarth.

Fig. S5.06: Skaill farm today, looking north-west with one of the barrow groups on the horizon to the right of the road heading towards the Loch of Stenness.

Langskaill, St Andrew's (Mainland): Table 8.01, no. 15

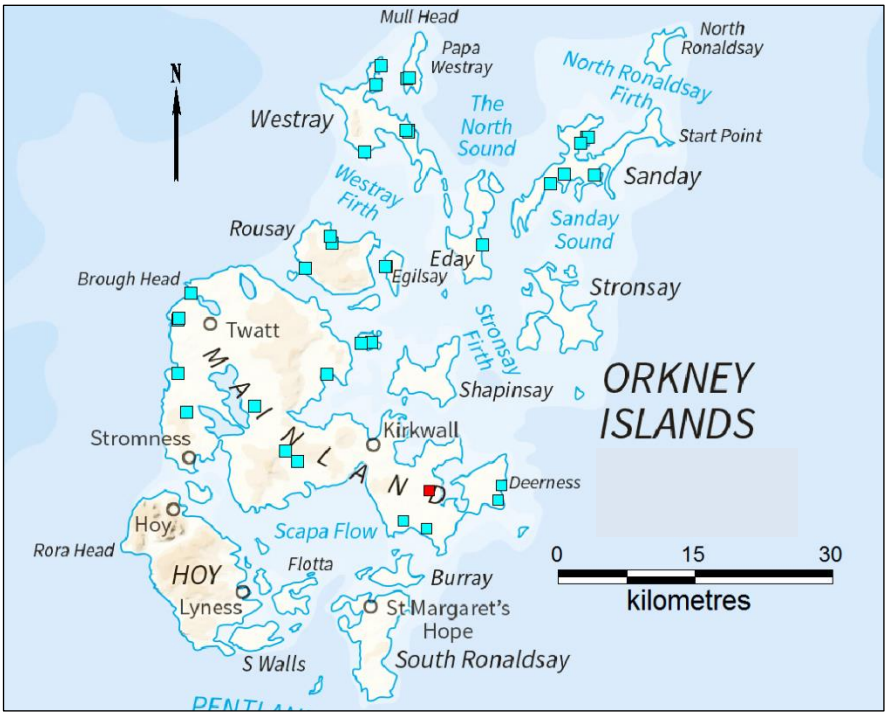

Fig. S6.01: Langskaill in St Andrew's marked by a red square, all other skaill-sites by blue squares.

The Langskaill site in St Andrew's (HY5093 0581) lies beside the Burn of Langskaill, with buildings ranged across a broad mound, in hillocky grassland 1.3km from a sandy bay to the east (Figs S6.02-3).

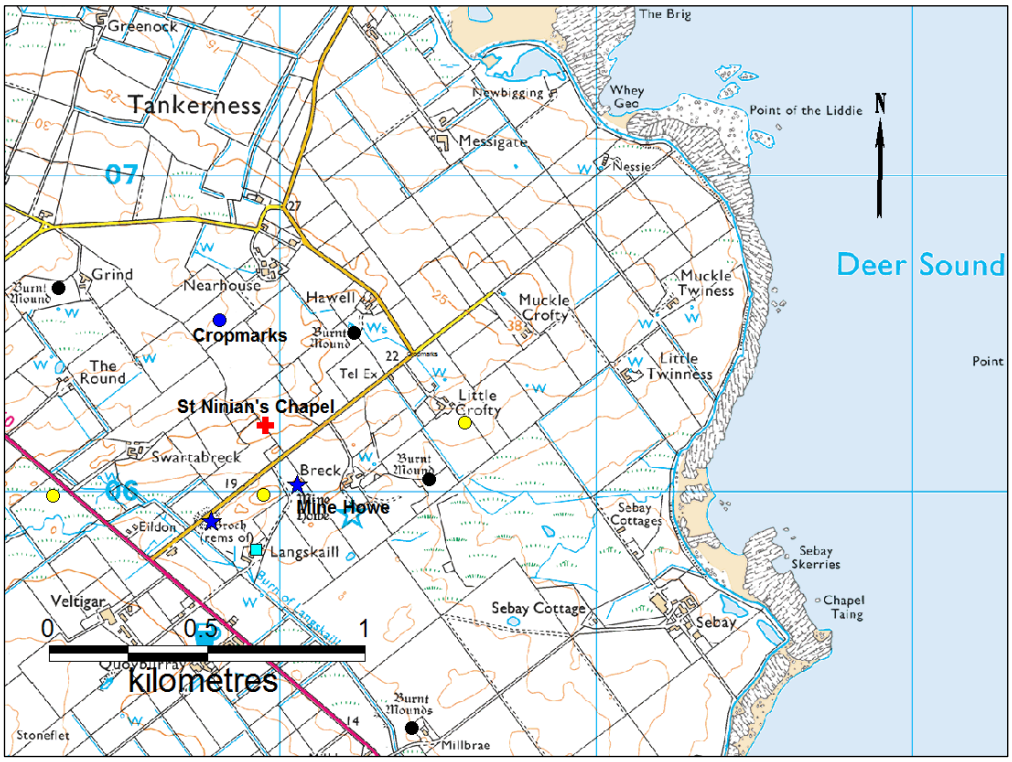

Fig. S6.02: the blue square marks Langskaill; the blue symbols Iron Age structures; the black circles burnt mounds, and the yellow circles prehistoric burial mounds. The red cross marks the site of St Ninian's Chapel.

The area is very rich in prehistoric archaeology: between the years 1999-2005 excavation and survey at Mine Howe revealed a significant and predominantly Iron Age site comprising a subterranean chamber, settlement and enclosure (Canmore ID 2988; Card and Downes 2003). The Bronze Age barrow, Long Howe, just south-west of Mine Howe was also investigated (Canmore ID 91743; Fig. S6.03). Less than 200m further south-west only the ditch of what was probably a broch survived the cutting of a road through the mound's centre (Canmore ID 3022: Lamb 1987, 24). The broch is only 200m north-west of Langskaill; Mine Howe is 250m to the north-north-east. Other groups of burial mounds lie west and east (for example Canmore IDs 2974 and 2986); several burns run through the area and four burnt mounds have been identified in damper areas. Cropmarks south-west of Nearhouse have been interpreted as revealing possible prehistoric settlement, including a roundhouse and souterrain (Canmore ID 307169).

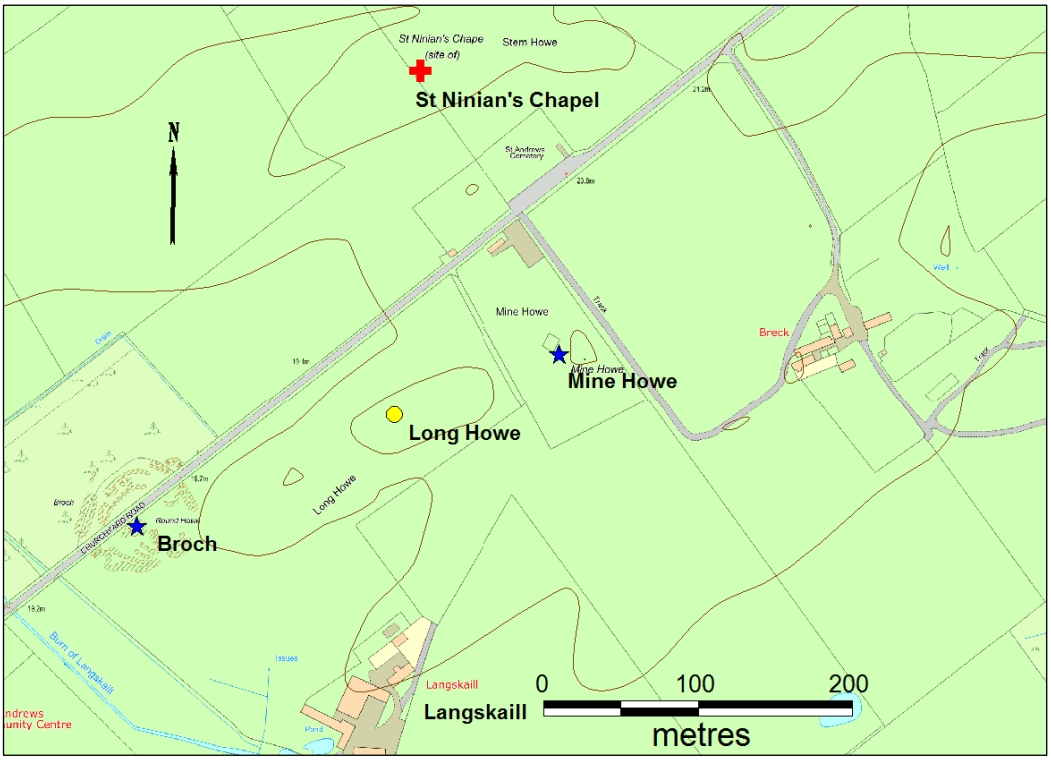

Fig. S6.03: Langskaill, St Andrew's and surrounding sites.

Fig. S6.04: Langskaill, St Andrew's, looking south-east.

There is no substantial Viking-Late Norse archaeology in the vicinity, but the site of St Ninian's Chapel is 400m north of Langskaill, where a rectangular grassy mound tops a pronounced hillock (Fig. S6.05; Canmore ID3020). Recent geophysics recorded a complex of anomalies around the chapel and part of a larger enclosure surrounding the structural remains (Card and Downes 2001, 71). St Ninian's might have been an early chapel-site, possibly associated with high-status Viking-Late Norse settlement. Storer Clouston conjectured that *Flyðrunes*, identified in *Orkneyinga saga* as the seat of a leading figure called Thorstein, was the large farm of Sebay on the bay east of Langskaill (Pálsson and Edwards, chs 56, 66 and 85; Lamb 1987, 24; Fig. S6.02).[1]

Fig. S6.05: Langskaill is in the centre with Mine Howe to the north-west, Long Howe and the broch remains to the north. The hummocky nature of the terrain is obvious as is the broad mound on which Langskaill sits. The chapel sit is above the graveyard, centre top © GoogleEarth.

Although the "bay" is differently configured to the open curved bays of, for example, Sanday and West Mainland, the area around this Langskaill site possesses many similar characteristics to the "classic" Viking-Late Norse settlement locations: mounds, previous settlement, possibly an early chapel, a burn, access to higher ground to the west and to a landing place and beach to the east in Sebay.

[1] The Chapel Taing name on the coast immediately east of Sebay suggests there may have also have been an early chapel.

Skaill-sites in Holm (Mainland): Table 8.01, nos 16-17

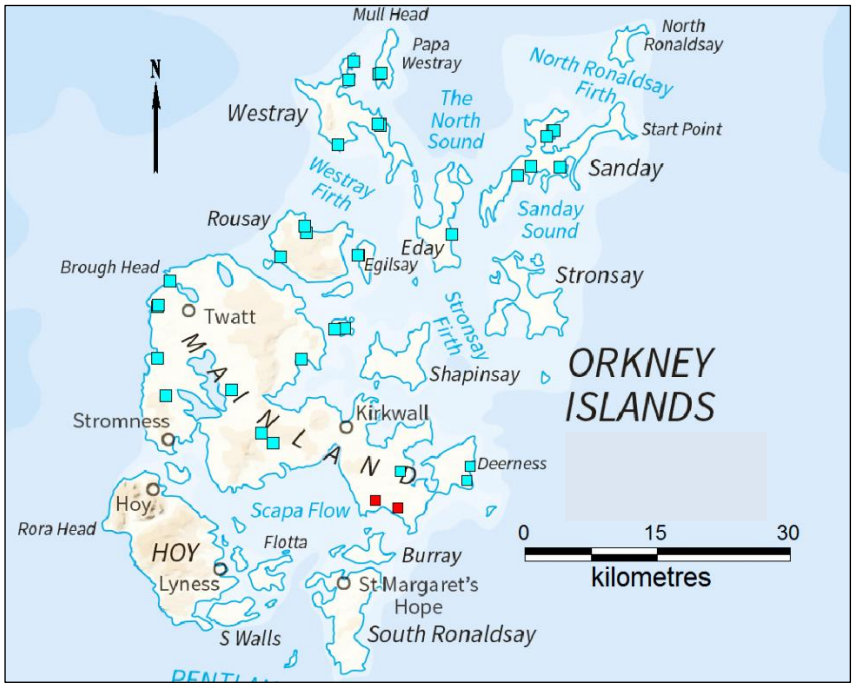

Fig S7.01: skaill-sites in Holm marked by red squares, all other skaill-sites by blue squares.

The sites of Skaill (HY4816 1253) and Skaills (HY5071 1570) lie 2.67km apart in Holm, East Mainland; both are marked on the 1882 Ordnance Survey map, but while Skaill continues as a farm, Skaills has been reduced to a dark patch in a field north-east of Vigga (Fig.S7.02). Skaill sits on a broad mound on a ridge with good views down to the coast and four burial mounds ranged along the crest and spur of the rige immediately to the east (Laughton's Knowe, Canmore ID 2362; three mounds at Hall of Gorn, Canmore ID 2373).

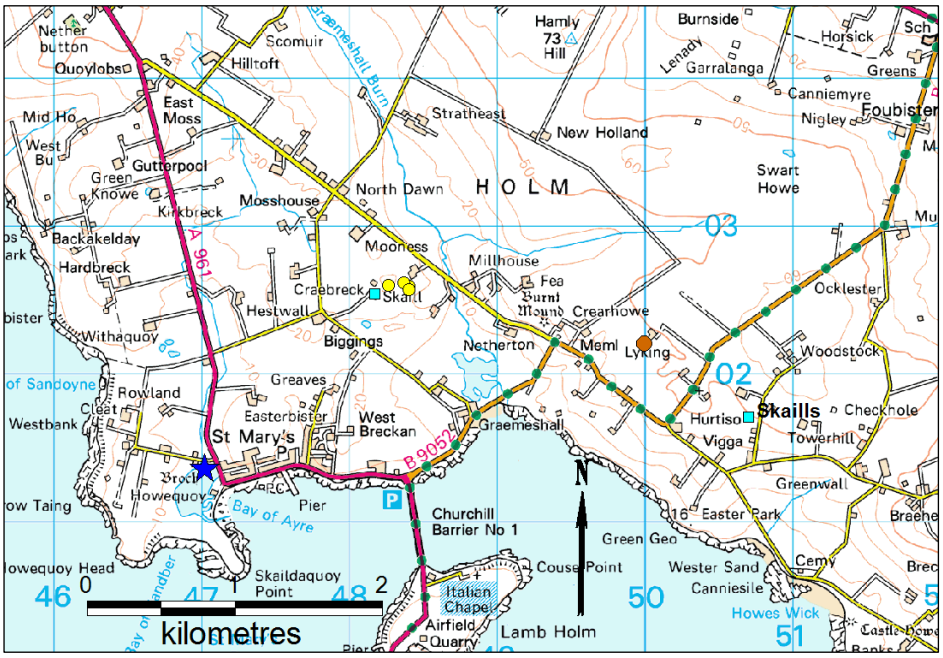

Fig. S7.02: the blue squares mark skaill-sites in Holm; the yellow circles cists and barrows; the blue star St Mary's broch and the brown circle Lyking Viking burial

The archaeology around St Mary's is otherwise dominated by twentieth-entury war-related sites, but the external wall of St Mary's broch, excavated in 1901-2, is still visible on the north shore of the Loch of Ayre (Canmore ID 2387), about 1.6km south-west of Skaill. The sandy bay of Graemeshall is just over a kilometre south-east and the farm of Biggings 350m to the south-west.

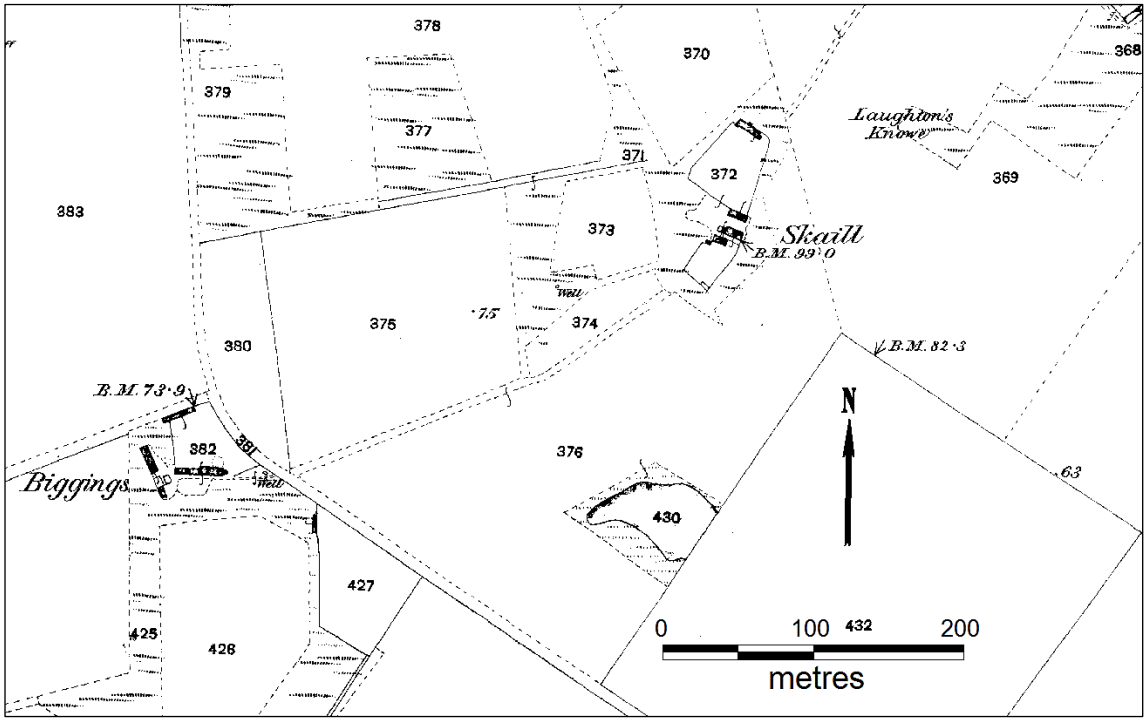

Fig. S7.03: Skaill in 1882 with Biggings to the south-west and the barrow to the north-east.

Fig. S7.04: Skaill today, looking NNW, showing the mound on which the farm stands and the barrows on the ridge to the right.

The only Viking-Late Norse archaeology in the area lies between the two skaill-sites, at Lyking: nearly two kilometres east-south-east from Skaill, and nearly a kilometre north-west of Skaills. Here a probable Viking burial was discovered sometime before 1870. No records exist of the discovery but burnt human bone, an iron spear-head and fragments of a bone comb survive (Canmore ID 3048).

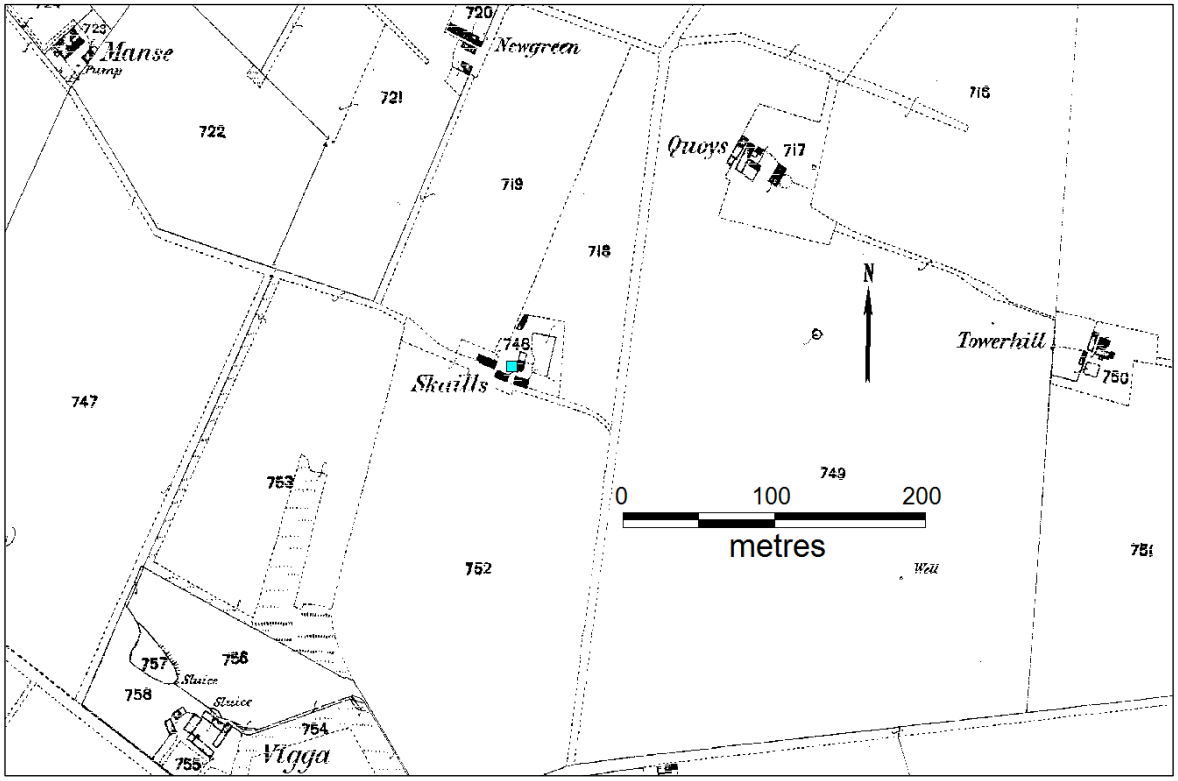

Fig. S7.05: Skaills, 1882.

The now disappeared Skaills was a more unusual “skaill-site”, with no known archaeology nearer than the Lyking burial. The site is on a relatively gentle slope, but quite elevated at 50mOD, looking out over the sea just under a kilometre away; there is no mound visible in the field where the farm once stood. This is likely to be a more recent naming.

Skaill-sites, Egilsay: Table 8.01, nos 30-31 (nos 18-29 discussed in chs. 5-6)

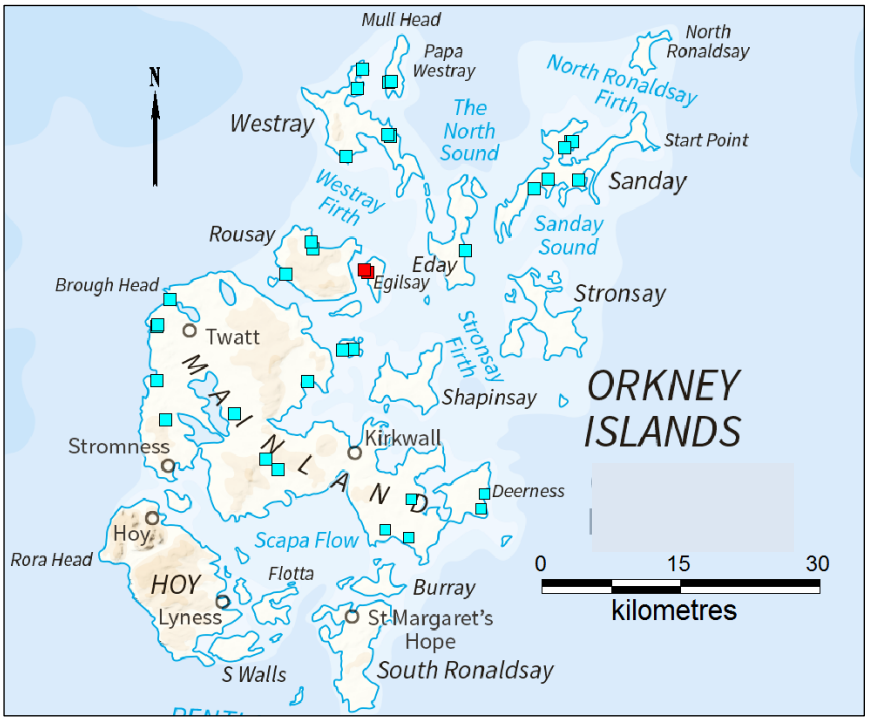

Fig. S8.01: skaill-sites on Egilsay marked by red squares, all other skaill-sites by blue squares.

The two skaill-sites are on the west coast facing Rousay, and both are on the 1882 Ordnance Survey map, with Mid Skaill, then and now the larger complex. Nether Skaill is further north with Mid Skaill just over 100m SSE, both are very close to the shore. On the modern maps at 1:2500 and smaller scale these two sites, with the farm of Mugley in between and a scatter of smaller houses to the north around the pier head, are labelled together as Skaill (Fig. S8.02). It seems quite likely therefore that the names represent one original Skaill site. St Magnus church stands less than 500m away to the north-east.

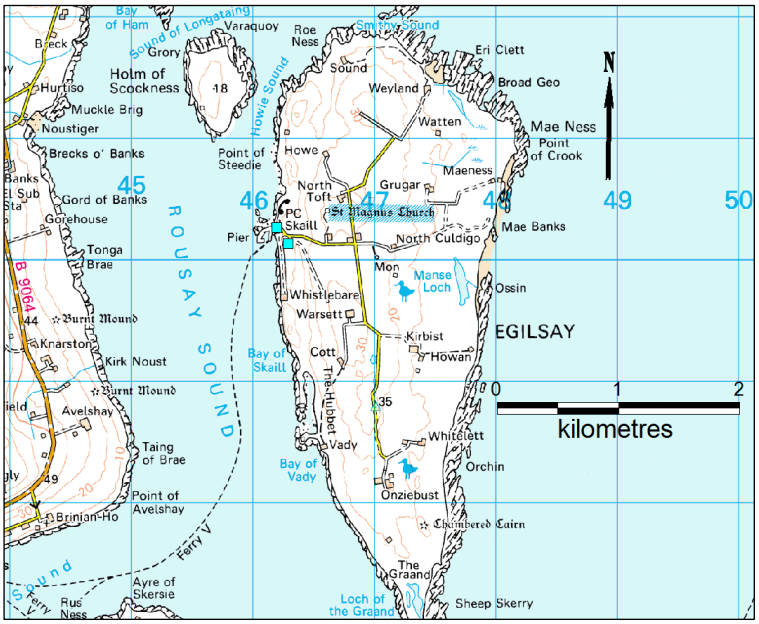

Fig. S8.02: blue squares mark skaill-sites on Egilsay.

Very little is known archaeologically about the area. A short, flat Bronze Age cist-burial was excavated about 40m south-west of Mid Skaill in 1992 when a bull fell through the capstone (Moore and Wilson 1995). In 1972 it was reported that midden-type material including pottery described as "Viking" were found in a collapsed bank at Skaill; in the 1980s organic layers were still visible in the erosion section below Mugley (Lamb 1982, 31; Canmore ID 2701).

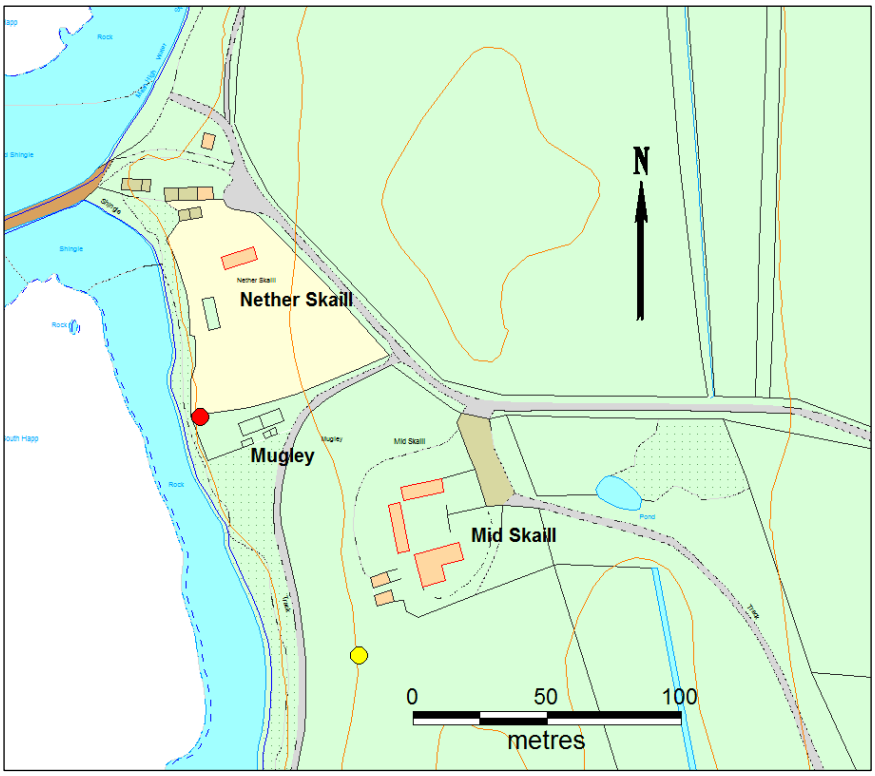

Fig. S8.03: Skaill, showing the constituent farms, the Bronze Age cist (yellow circle) and the midden exposure (red circle).

Skaill, Eday: Table 8.01, no. 38 (nos 32-37 in Ch. 7)

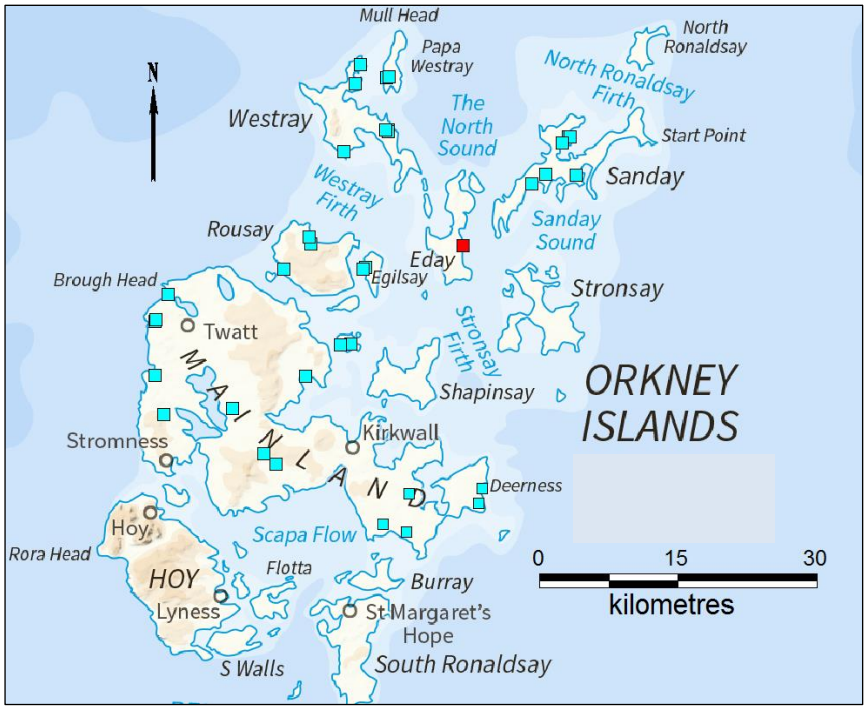

Fig. S9.01: Skaill, Eday is marked by a red square, all other skaill-sites by blue squares.

Eday is dominated by dark, peat-covered hills, providing a useful resource for its near-peatless neighbour, Sanday. The island's topography means a relatively high proportion of uncultivable land and settlement tended, as on Rousay, to stick to the coastal fringes (Lamb 1984). Although there is a rich record of prehistoric archaeology on Eday there are no reported Viking Late-Norse finds or sites. The single skaill-site on Eday, also on the 1882 Ordnance Survey map, is a large farm on the east coast, looking towards the northern tip of Stronsay and Spur Ness at the south-western end of Sanday.

Skaill sits on a broad spread mound a bare 20m from the beach, and was once a mill, but there are no records of archaeological deposits in the vicinity. Just over 200m north is the site of St Mary's Church, the parish church until the early-nineteenth century and probably a fourteenth-century foundation (Canmore ID 3196). The sub-oval burial ground is still used, although there is no trace of the medieval church; the 1882 map also marks the location as having been a chapel-site, suggesting there may have been a pre-fourteenth-century church. A burnt mound lies just to the north-west of the churchyard (Canmore ID 3197), while several small mounds and a chambered cairn are scattered across the spur of high ground to the west of Skaill (Canmore IDs 3203 and 3210).

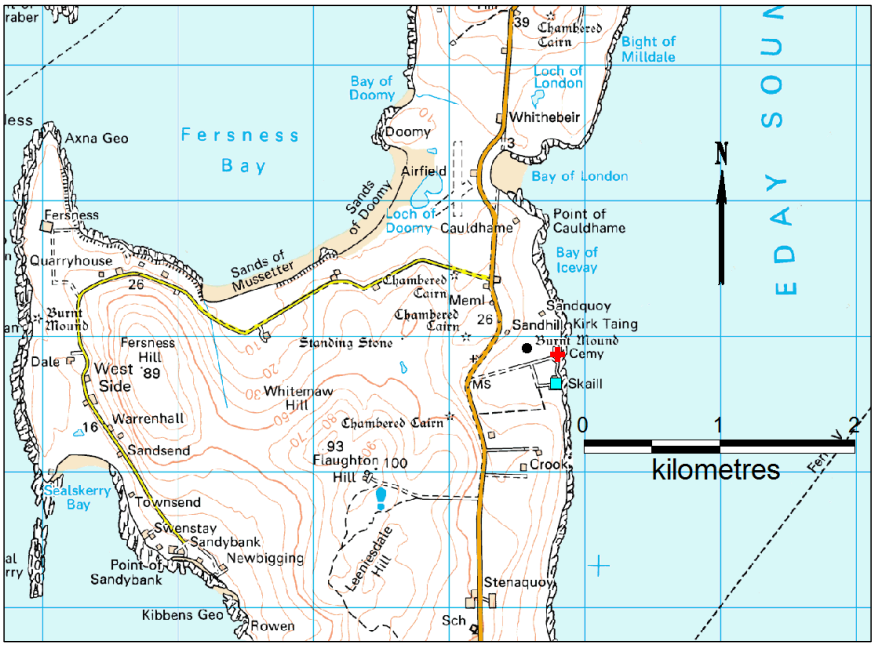

Fig. S9.02: the blue square marks Skaill: the cross marks the site of St Mary's Church.

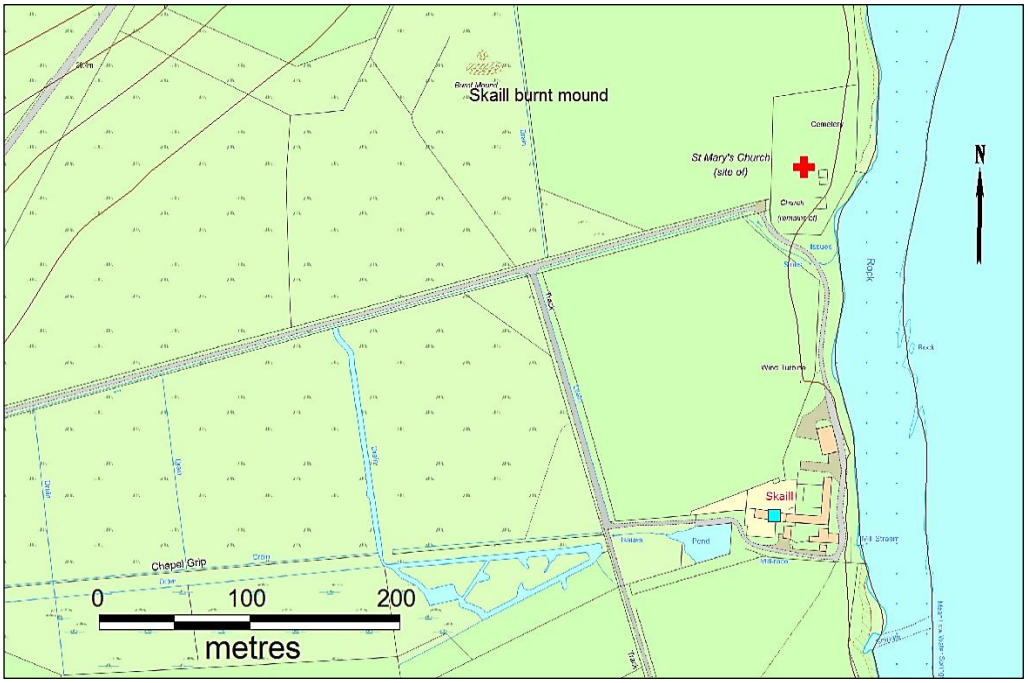

Fig. S9.03: Skaill, showing the site of St Mary's Church and the burnt mound.

Tables

Table 1.01: Excavated settlement sites in Orkney with Viking-Late Norse elements

Table 4.01: The Mounds of West Mainland: Bay of Skaill

Table 4.02: Mound location and mound-related building techniques: Bay of Skaill

Table 4.03: The Mounds of West Mainland: Marwick Bay

Table 4.04: Mound location and mound-related building techniques: Marwick Bay

Table 4.05: The Mounds of West Mainland: Birsay Bay

Table 4.06: Mound location and mound-related building techniques: Birsay Bay

Table 5.01: The Mounds of East Mainland: Deerness

Table 5.02: Mound location and mound-related building techniques: Deerness

Table 6.01: The Mounds of Westray

Table 6.02: Mound location and mound-related building techniques: Westray

Table 7.01: The Mounds of Sanday

Table 7.02: Mound location and mound-related building techniques: Sanday

Table 8.01: All skaill place-names in Orkney

Table 8.02: Skaill only place-names in Orkney

Table 8.03: Langskaill place-names in Orkney

Table 8.04: -skaill place-names in Orkney

Table 8.05: Cleat-sites on Orkney

Table 1.01: Excavated settlement sites in Orkney with Viking-Late Norse elements (see Fig. 1.02)

V-LN settlement site	Location NGR: centre	Distance to nearest Skaill name	V/LN built over earlier prehistoric settlement (to BA)	V/LN built over E-MIA settlement	V-LN built *directly* over LIA/Pictish settlement	Phases of V/LN structures	Mound settlement	Possible early chapel nearby	Coast-edge distance to coast
1. St Boniface, Papa Westray	4880 5270	1.8km S	Yes	Yes	No: hiatus/shifted location	Possibly	Yes	50m ESE	Coast-edge
2. Quoygrew, Westray	4433 5065	0.9km SE	No	No	No	Yes	Yes	No	Coast-edge
3. Langskaill, Westray	4383 4287	Site	No	Yes (Iron Age)	Yes (Iron Age)	Yes	Yes	1.6km ESE	Coast 500m SE
4. Tuquoy, Westray	4542 4397	1.6km WNW	No	No	No	Yes	Yes	0.3kmE	Coast-edge
5. Langskaill, Sanday	6836 4442	0.2km W	Unknown	Unknown	Unknown	Possibly	Yes	1.3km NW	Coast-edge
6. Skelbrae, Sanday	6753 4376	0.9km NE	Unknown	Unknown	Possibly	Possibly	Yes	1.2km NNW	Coast-edge
7. Westbrough, Sanday	6633 4235	1.9km NE	Unknown	Unknown	Possibly	Possibly	Yes	On site	Coast 300m NW
8. Pool, Sanday	6194 3785	2.6km NE	Yes	No	After poss. hiatus	Yes	Yes	0.5km WNW	Coast-edge
9. Westness/ Swandro, Rousay	3754 2964	0.5km NNW	Yes	Yes	Yes?	Yes	Yes	Pictish-V/LN cemetery: 300m S	Coast-edge
10. Brough of Birsay, Birsay	2377 2851	c. 1.5km SE	No	No	Yes	Yes	Brough	On site	Brough
11. Point of Buckquoy, Birsay	2428 2839	c. 1km SE	Yes	Unknown	Unknown	Unknown	Yes	0.3km NW 0.8km SE	Coast-edge
12a. Red Craig, Birsay	2488 2816	c. 0.8km SE	No	No	Yes: after hiatus	Possibly	Yes	0.5km SE	Coast-edge
12b. South of Red Craig, Birsay	2466 2807	c. 0.6km SSE	No	Possibly: burials	Possibly: burials	Midden/ burials	Yes	0.3km SSE	Coast-edge
13. Buckquoy, Birsay	2436 2823	c. 1.1km SE	No	No	Yes: poss. hiatus	Yes	Yes	0.6km SE	Coast-edge
14. Beachview, Birsay	2470 2754	c. 0.4km SE	Possibly	Unknown	Unknown	Yes	Yes	0.2km N	Coast-edge
15. Sævar Howe, Birsay	2460 2700	c. 0.6km NE	No	Possibly	Yes: after hiatus	Yes	Yes	0.7km N	Coast 400m W
16. "Viking Houses," Marwick	2283 2399	0.8km NE	No	Possibly	Yes: after hiatus	Yes	Yes	0.2km NE	Coast-edge
17. Snusgar and East Mound: Skaill, Sandwick	2365 1964	1km SSW; poss. 0.3km S	No	Possibly	No	Yes	Yes	0.3km WNW	Coast 250m SW
18. Earl's Bu, Orphir	3346 0042	c 6km NE	No	No	No	Yes	Yes	On site	Coast 150m S
19. Newark Bay, Deerness	5746 0413	1.2km NE	No	Yes (Iron Age)	Possibly	Unknown	Yes	On site	Coast-edge
20. Skaill, Deerness	5881 0651	Site	No	No	Possibly	Yes	Yes	On site	Coast-edge
21. Brough of Deerness, Deerness	5955 0873	2.4km SSW	No	No	Yes: after poss. hiatus?	Yes	Brough	Yes	Brough

Table 4.01: The Mounds of West Mainland: Bay of Skaill

	Name; Parish	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
69	*Gairsty, Sandwick [Link to Table 4.03]*	*2630 2050*	*Indeterminate*	***1859***	*RCAHMS 1946: two small mounds, now no trace.*	*N/A*	*Inland c. 30mOD*
70	Castle of Snusgar, Sandwick	2365 1964 centred	V/LN settlement **Settlement mound**	**1674 1666**	OSA 1834-45, 458-9; DSRs 2004-2012: Viking-Late Norse settlement mound with longhouse and structured midden. Minor excavation in 1934 reported traces of walling in NW side (occasionally visible in sand blows and cattle erosion). In *Original Name-Books* the Castle is described as close to the NE end of the bay ⅛ mile (c 200m) *south* of the parish church. This is nearer to no. 74 below. In OSA: described as the ruins of a large building close by sea-shore (no more specific). ***See discussion in text*** Another low archaeological mound was discovered by geophysics c. 100m NNW of the main mound merging with the larger eminence.	c. 100m	Inland: 140m WBS 14m OD
71	East Mound, Sandwick	2381 1959 centred	V/LN settlement **Settlement mound**	**1674**	DSRs 2004-2012: Viking-Late Norse settlement mound with longhouse and ancillary buildings. ***See discussion in text***	c. 70m	Inland: 275m WBS 13m OD
[72	*Snusgar, Sandwick*[3]	*2369 1962*	*Hoard*	***1666***	*A silver hoard of ornaments and coins was found in 1858. 16lb hoard included nine large penannular brooches, ring money including 14 twisted neck and arm rings, 23 solid penannular armlets, 11 silver ingots and bars, numerous fragments of hack-silver, and three Anglo Saxon and seven Cufic coins, the latest was struck at Bagdad in AD945. Found on or near Castle of Snusgar: exact location uncertain but found in a rabbit burrow by lad kelping so likely to be near the shore.]*		
73	Linnahowe, Sandwick	2327 2006	Poss. settlement	**1905**	RCAHMS 1946: traces of an old structure known as "The Castle" noted in an overgrown enclosure immediately east of Linnahowe. Lamb 1967 in OSMR: remains of a mutilated and spread but extensive mound, known locally as "The Castle". A silage pit dug into the SW side of the mound produced much stone, ashes and old bones, but no walling. *The Orcadian* in 1907 reported a large stone construction at Linnahowe covering around an acre (4,000 m^2).	N/A	Inland: 350m WBS/ pasture 17m OD
74	Near St Peter's, Sandwick	2341 1971	Poss. prehis - V/LN settlement Poss. V/LN burials **Settlement mound**	**1676**	RCAHMS 1946; Morris 1985, 85: four uncisted skeletons discovered c. 3m down in sand without grave-goods, below a 'double layer of midden deposit' c. 1935, when the road SSW of the church was straightened and widened. Structural remains included walling, and midden deposits with bone pins (likened to Skara Brae pins), animal and fish bone, also seen in slope	c. 50m	Coast-edge WBS 15m OD

Table 4.01: The Mounds of West Mainland: Bay of Skaill

	Name; Parish	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
					'adjoining work area'.		
75	St Peter's Church, Sandwick	2345 1987	Church/ chapel	**1679**	RCAHMS 1946; Connolly 2003 DES, 102; Fraser 1924; Morris 1985, 85: parish church built 1836 on site of previous church: work in 2003 discovered possible foundations of earlier structure.		Inland WBS 15m OD
76	Bay of Skaill, Sandwick Southern arm	2295 1874	Poss. V/LN settlement V/LN burials **Settlement mound**	**1665**	RCAHMS 1946; Morris 1985, 82; Watt 1888, 283-5: long cist burial, male with grave goods: bone comb and case; arrowhead, spearhead and whetstone. Animal, bird and fish bone also recovered, so probably in or under midden.	c. 60m	Coast-edge WBS 10m OD
77	Bay of Skaill, Sandwick Southern arm	2294 1874	**Multi-period settlement mound; "Boat House/ Western Mound"**	**1684**	RCAHMS 1946; Morris 1985: eroding mound surveyed in 1978 and 1982. Resistivity survey over 850 m^2 suggested anthropogenic/structural deposits in section extended back up to c. 20m from cliff edge in NE. Considerable erosion occurred 1978-1982. 150m of section photographed: several phases apparent including major structural remains, walls and flagged floors; at least two building phases separated by deep WBS. Mound: 'embracing both structures and funerary elements' (Morris 1985, 89).	c. 60m	Coast-edge WBS 10mOD
78	Bay of Skaill, Sandwick Southern arm	2300 1873	Prehis settlement **Settlement mound**	**91751**	Richards 1994, 92: storms revealed a deposit of Skaill knives and animal bones eroding from the base of sand dunes. Rescue excavation (trench 12m by 1-3m) uncovered wall remains dividing deposits into two areas. To the W disarticulated animal bone, mainly red deer was mixed with the remains of c. 200 Skaill knives and flakes. Beyond this spread, part of a whale skull associated with several more Skaill knives. The knives and bones were in an old land surface over natural till and sealed by WBS. E of the wall a circular hearth overlay articulated red deer bones, including a skull with attached antlers: probably a Neolithic off-site butchery and knife manufacture area.	c. 60m	Coast-edge WBS 10mOD
79	Bay of Skaill, Sandwick Southern arm	2292 1877	Poss. prehis settlement **Settlement mound Same as 80**	**119852**	Ashmore 1997 DES, 60; Simpson and Ballin-Smith 1998 DES, 71: a double-faced wall, 1m high discovered in 1997 sitting on glacial till and contained within reddish-brown midden deposits like Neolithic layers at Pool (Sanday), the wall at a similar level to structures excavated at Skara Brae and the Neolithic butchery floor excavated in 1994 (no. 78). These features may therefore date to the 4th or 3rd-millennium BC. Geophysical survey and rescue excavation were undertaken on the eroding site: the wall was the back/end of a collapsed structure. Some non-diagnostic artefacts recovered.	c. 60m	Coast-edge WBS c. 8mOD

Table 4.01: The Mounds of West Mainland: Bay of Skaill

	Name; Parish	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
80	Bay of Skaill, Sandwick Southern arm	2294 1876	Prehis burial Poss. prehis settlement **Settlement mound**	**138798**	James 1999, 771-772: cist burial partially excavated after exposed by erosion of the mound in 1994: cut into dark silty sand layers 0.4m deep, sealed by WBS and low circular cairn of small stones. In 1996 cliff section around cist cleaned and recorded: skeleton fully excavated dated to AD550-680 (2 σ), possibly Christian. Immediately NW of the cist were structural remains sealed by the silty sand layer cut by the cist (poss. prehis pottery found in this layer. The structures comprised short sections of collapsed and upright drystone walling (within c. 5m length of section).	c. 60m	Coast-edge WBS c. 5 - 8mOD
81	Skara Brae, Sandwick	23125 18745	Prehis. settlement **Settlement mounds** Poss. V/LN burials	**1633**	RCAHMS 1946; Childe 1950; Clarke 1976 etc.: Neolithic settlement of drystone structures linked by paved passageways. Almost all built into mounded midden material packed up against the outer walls. The houses were furnished using orthostatic stone slabs to create central hearths, box-beds and shelved "dressers". Freestanding House 8 may have been a workshop. At least ten structures have been recorded: these were not contemporary. The settlement was in use for c 500 years, the consolidated houses now visible were the last phase of rebuilding and occupation. Childe1931, 143: two stone cists with pagan burials in overlying sand	c. 50m	Coast-edge WBS c. 5mOD
82a	Loch of Skaill, Sandwick *(Loupandessness)* *[Loupandessness, Sandwick*	2358 1841 *2357 1840*	Possible broch *Celtic cross-mould*	– ***1678***	Geophysical Survey 09/05 Orkney College Geophysics Unit Figs 5 and 6. Concentric circular gradiometer anomalies on slight rise near NW end of Loch Skaill suggest an undiscovered broch near the site of *Loupandessness* (OS 6" map name). *OS visit 1967 records in relation to 1678 no traces of a building at the spot named as Loupandessness on the OS 6" map, but 'a heavier stone content on a natural eminence suggests the site of a substantial structure' where mould found.]*	c. 40m	Loch-side WBS c. 12mOD
82	Knowe of Verron, Sandwick	2305 1976	Probable broch	**1675**	RCAHMS 1946; Morris 1985, 85; Moore and Wilson 2001 DES 2, 71; Harrison 2011: suspected broch with midden on low, steep headland: hummocky surface under stable grassland on summit, actively eroding cliff-edges in which structural remains have been and are visible. On summit remaining feature c.50 m square (unknown area lost to erosion), with central depression near cliff-edge and double circuit of irregular banks over 1m high; possible structural stones visible in inner bank and depression.The eroding	c. 50m	Coast-edge Glacial till c. 13m OD

Table 4.01: The Mounds of West Mainland: Bay of Skaill

	Name; Parish	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
					section has revealed midden deposits, probable prehistoric pottery and metal working debris. Limited excavation and section recording carried out on the erosion face in 2001 recorded two possible buildings. The earliest was sub-rectangular/oval in plan with a flagged floor, orthostatic furniture and a large hearth. The poorly preserved later building revealed remains of flagged flooring with deposits of peat ash and metalworking debris. In 2011 actively eroding cliff-section 20m long (SE facing), observed from rock platform 3m below summit: courses of structural stone seed; edges of weathered Terram from 2001 excavation; burnt stone and bone; shell and charcoal. West of section with Terram, more brownish-black midden eroding from exposure.		
83	Howans, Sandwick	2523 1755	Possible broch	**1637**	RCAHMS 1946; MacKie 2002: no trace now	N/A	Loch-side
84	Scarrataing, Sandwick	2761 1764	Possible broch	**1633**	RCAHMS 1946; MacKie 2002: a short stretch of the inner face of a curved wall is visible. On the S side are traces of possible linked structures and on the landward side a curved outer rampart.	N/A	Loch-side
85 **86**	Skaill House, Sandwick	2346 1860	Possible chapel V/LN burials	**1687** **123653**	RCAHMS 1946; Clouston 1918b, 100: Morris 1985: an early chapel may have stood close to Skaill House (seventeenth-century). A plan of 1772 shows at 'Skail' a rectangular enclosure and an unlabeled building, with a W tower, which could be a ruined church. James 1999: a medieval cemetery was discovered during drainage works at Skaill House. Six uncisted skeletons were salvaged and a further cist recorded. Subsequently two small areas were excavated: in Area A, below WBS, was an E-W aligned organised row cemetery, of 12 upright stone grave markers, two flat slabs and two groups of flat cover slabs; in Area B were five E-W aligned uncisted burials. No grave goods were found. Five radiocarbon dates on the skeletons show the cemetery was in use from mid-eleventh century to late-fourteenth century (then covered with sand).		Inland: 300m WBS 10m OD
87	Skaill House, Sandwick	2341 1870	Poss. prehis burial	**1668**	RCAHMS 1946; Morris 1985, 83: possible remains of disturbed barrow on a (no longer natural) rise (see geophysics no. 77): probing revealed no apparent stone content.	c. 7m	Inland: 300m WBS 10m OD

Table 4.01: The Mounds of West Mainland: Bay of Skaill

	Name; Parish	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
88	Lenahowe, Sandwick	2312 2014	Poss. prehis burial	**1907**	OS Name Book 17, 41: recorded a stone cist with human remains and brown 'unctuous earth'. Now no trace.	N/A	Coast-edge
89	Sand Fiold, Sandwick	2422 1955	Prehis burials	**1689**	Ashmore 2003; DES 1989, 65-6; Dalland 1999: a cist discovered during sand quarrying, consisted of a rock-cut pit, 3.2m x 3.4m x 2m deep creating a chamber against the W wall of which was built a free-standing stone cist, 1.6m x 1m x 1m high, covered with a capstone. A drystone wall was constructed opposite the cist and space between roofed with capstones. The cist contained both inhumations and cremations: one of the latter was in an urn. The cist had been reused at least once. A slate pot lid was found just outside the cist and the cist contained organic fibrous material. Vitrified material (FAS) and cremated human bone were also found between the cist and the chamber wall and may have been funeral-pyre material. Seven radiocarbon dates gave ranges of 2880-2490 cal BC and 1980-1740 cal BC.	N/A	Inland WBS c. 25mOD
90	Milhouse Sand Fiold, Sandwick	2388 1913	Probable prehis burials	**1667**	RCAHMS 1946; DES 2009, 135-136; Lysaght 1974; Morris 1985, 83: one of a group of tumuli opened by Sir Joseph Banks before 1772, revealing three cists, one of which contained beads. Banks records two sorts of cist in the area: short cists covered by a small cairn and overlaid by sand, and cists of six stones. Additional material suggests these were Early Bronze Age short cist burials. Only two mounds visible in 1967 (OSMR report): B and C. A: 2379 1912 and D: 2394 1915 no trace B: 2382 1915: large circular mound possibly natural C: 2389 1915: low spread mound possibly natural Gradiometer survey in 2009 centred on 2388 1913 demonstrated that thick WBS probably blanketed archaeology in this area.	c. 12m c. 10m	Inland WBS c. 10mOD
91	Velzian, Sandwick	231 173	Prehis burials	**1680**	OBP 1993: a linear barrow cemetery was recorded, sited on a ridge and visible to N, E, W and especially S. Mounds 1-3 revealed cists with cremated bone when ploughed; two mounds may have been lost.	c. 10-12m	Hillside 56mOD
91a	Knowe of Angerow, Sandwick	2352 1720	Poss. prehis burials	**1673**	RCAHMS 1946; OBP 1993: up to three possible barrows, one remains and was surveyed in 2013, on a prominent ridge-crest visible in all directions. Recent erosion has revealed an earth core and stones including loose slabs.	c. 13m	Hillside 74mOD
92	Knowe of Nebigarth	2316 1750	Poss. prehis burial	**1670**	RCAHMS 1946: amorphous remains of a turf-covered barrow on a ridge.	N/A	Hillside 63mOD

Table 4.01: The Mounds of West Mainland: Bay of Skaill

	Name; Parish	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
93	Knowe of Geoso, Sandwick	2282 1792	Poss. prehis burial	**1671**	RCAHMS 1946: large, quarried and eroded turf-covered cairn situated on a conspicuous ridge, stone and protruding orthostats visible.	c. 25m	Hillside 63mOD
94	Hurkisgarth, Sandwick	2545 1770	Poss. chambered cairn	**1636**	RCAHMS 1946: large near circular spread mound on a crest reported to have contained a chambered structure.	c. 15m	Field 33mOD
95	Stockan, Sandwick	2651 1774	Poss. prehis burials	**1614** **1639-1642**	RCAHMS 1946: as many as 11 mounds (barrows/cairns) recorded in this area: most now gone (including Scarrataing Canmore ID 1647 and Mill of Rango Canmore ID 1645)	N/A	Loch-side 10mOD
96	Cumbla Newgarth, Sandwick	261 190	Poss. prehis burials	**1635**	RCAHMS 1946; OBP 1993: former site of nine barrows now levelled.	N/A	Hillside 13mOD
97	Knowe of Bain, Sandwick	2544 2039	Poss. prehis burials	**1884**	RCAHMS 1946: no trace remains of three barrows.	N/A	
98	Russel Howe, Sandwick	2484 2016	Poss. prehis burial	**1921**	RCAHMS 1946: barrow/cairn demolished and stone used to build a wall.	N/A	Hillside c. 55mOD
99	Knowes of Esco, Sandwick	2481 2099	Indeterminate	**1906**	OBP 1993: one remains of two mounds	c. 11m	Hillside c. 50mOD
100	Quoyloo, Sandwick	2440 2077 2435 2064	Indeterminate	**1900**	RCAHMS 1946: stone cist reported: no trace now.	N/A	
101	Huan, Sandwick	2373 2065	Indeterminate	**1899**	RCAHMS 1946: now disappeared mound with cist.	N/A	
102	Loch of Tronston, Sandwick	2617 2082	Burnt mound	**1853**	RCAHMS 1946: Much damaged grassy mound, near a marshy area: black earth and protruding stones seen in eroding area.	c. 12m	Inland c. 28mOD
103	*Skara Brae, Sandwick*	*231 187*	*Rune inscribed stone*	***1664***	*A rune stone was found in 1982 having been used face down as a paving slab for 19 years: it has three twig runes reading IBA or IUA; and three poorly formed futhark runes of which the first and last read R.*		
104	*Skaill Home Farm, Sandwick*	*228185*	*Rune inscribed stone*	*2600133*	*In 1996 a derelict stone building was demolished at Skaill Home Farm and an inscribed rune stone discovered. It is roughly rectangular sandstone, c. 95 x 25 x 6-8 cm. It has two sets of runes on its long edges, a main text in bold lettering on the front, and a second, faint text, graffito-like, on the back. Of the main text only the first eight can be read* ***þurfinr:r****. Presumably the text was a raiser formula, Þorfinnr reisti … or Þorfinnr risti/reist …. The runes on the back are impossible to identify. It is unclear if these runes constituted a formal inscription or were casual graffiti.*		

Table 4.01: The Mounds of West Mainland: Bay of Skaill

1. **Locations defined as follows:**

   Coast-edge: between Mean High Water Line and c. 100m inland;

   Inland: approximate distance inland from nearest Mean High Water Line: calculated only for known/possible settlement mounds.
2. **Geology:** drift geology given where possible.
3. **Italicised entries:** non-mound/non-chapel evidence of relevance; no. 69 is the link to the mound table for Marwick Bay.

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Table 4.02: Mound location and mound-related building techniques: Bay of Skaill

	Snusgar	East Mound	Western Mound
General			
500m or less from coast/ on arm of bay	X bay arm	X bay arm	X on shore
Built into windblown sand	X	X	X
Constructed on an existing settlement mound or natural hillock/rise	X	X	X
Overlooking significant Iron Age settlement: brochs/ prehistoric funerary monuments	X	X	X
Near or possessing *skáli*-names	X	X	X
Built over and into pre Viking-Late Norse structures and middens and/or preceding Viking-Late Norse structures and middens, resulting in archaeological layers of structures, midden-type material, yards and surfaces,	?	?	X
Extensive, frequent and undisguised modifications and rebuilding, sometimes linked to change of use e.g. from byre to domestic; or elongation/shortening of the main longhouse[1]	X	X	?
Addition of ancillary buildings and annexes to ends and sides of longhouses; often joined by passage, walls, yards	?	X	?
Use of stone (flags/beach cobbles), turf and midden in building; wood used for internal features and roof structures	X	X	?
Applications of a range of midden-type material			
Accumulation and storage of midden-type material often for future re-use	X	X	X
Stabilising external work/pedestrian surfaces with midden-type material, usually mixed with sand: "sheet midden" (refuse, some redeposited from a midden store, scattered on the ground)	X	X	?
Structured midden: deposited deliberately to build up mounds and stabilise slopes, sometimes held in place by arcs of stone/ rough, low stone walls	X	X	?
Creating floors using midden-type material: clay-rich/ash-rich material often used on internal floors	?	X	?
Using midden-type material as wall-core and as revetting for single-faced walls	X	X	?
Digging down into stable midden-type material accumulated around existing structures to build walls, and into abandoned structures infilled with midden-type material and/or partially levelled	?	X	?
Walls and internal features			
New walls built against old walls, sometimes incorporating existing courses (also seen in the Iron Age, especially building of new walls inside old ones to reduce internal area), often linked to digging down into floors/midden-type material	?	X	?

[1] A typical sequence might be: initial relatively small domestic structure with separate out-houses; addition of a byre-end; addition of yards, passages and pathways and changes to out-buildings creating a connected complex of buildings; extension of the domestic end; decline in use; use as animal pens or midden storage; abandonment.

Table 4.02: Mound location and mound-related building techniques: Bay of Skaill

Partially demolishing and then re-using remnants of walls	?	X	?
Building directly over and/or incorporating walls, usually when internal surfaces had been raised by both floor accumulations and deliberate rapid infilling of buildings	?	X	?
Re-aligning or extending walls, but not attempting to match building techniques or existing alignment; extension walls often have obvious kinks marking new build and use different size/shape of stones and/or courses	?	X	?
Shortening buildings with new/modified internal and external walls, and partitioning buildings with the insertion differently built cross- or partition-walls	?	X	?
Frequent modification of internal features often associated with floor accumulation and/or change of use		X	
Frequently found internal features**: s**tone-lined and capped drains; orthostatic bench supports, boxes, and compartments; small and perhaps sequential peripatetic hearths; chock-stones and partitioning using chock-stones and wood/hurdles; repeated re-paving and use of areas of rough paving	?	X	

Table 4.03: The Mounds of West Mainland: Marwick Bay

	Name; Parish	Grid ref. HY	Category	Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
40	Roseview, Birsay and Harray	2466 2537	Indeterminate	**1798**	RCAHMS 1946: now disappeared; possible prehistoric burial mound(s). *[Link Table 4.05]*	N/A	Ridge c. 80mOD
41	Windbreck Birsay and Harray	2460 2524	Indeterminate	**1839**	RCAHMS 1946: now disappeared; possible prehistoric burial mound. *[Link Table 4.05]*	N/A	Ridge c. 80mOD
42	"Viking Houses" Marwick, Birsay and Harray	2283 2399 for mound	Prehis-V/LN settlement **Multi-period settlement mound**	**1920**	RCAHMS 1946; DES 9 (2008), 132-133; DES 10 (2009), 128: between c. HY2302 2410 and HY2283 2399: gradiometer (c. 5ha) and resistivity (c. 1ha) surveys carried out in field between chapel site (no. 43) and coastal mound erosion exposure (no. 42). Settlement activity relating to mound site extends E into field; evidence for rig and furrow and other features within and beyond the scheduled area on coast and around chapel. The erosion section was excavated vertically in 2009: **BSLAP DSR 2009.** ***See discussion in text***	c. 20m+	Coast-edge Glacial till c. 3mOD
43	Marwick Chapel, Birsay and Harray	2302 2410	Chapel	**1916**	RCAHMS 1946; DES 10 (2009), 128: grassed over foundations of small, undated chapel oriented c. NE- SW; c. 7.8m by 6.6m (c.5.2 m. by 3.8 m. internally), with narrow doorway visible in SW wall. J. S. Clouston excavations revealed walls of "rubble" built with clay mortar. A low grass-covered earthwork delineating a sub-oval enclosure is visible especially NW of the chapel: probably the burial ground. **BSLAP DSR 2009.** ***See discussion in text***	c. 20m	Coast-edge Glacial till c. 4mOD
44	Marwick, Birsay and Harray	2300 2370	Poss. prehis settlement	**332530**	DES 12 (2011), 129-130: gradiometer survey identified archaeological anomalies, including: possible roundhouses (paired structures); associated less well-defined structures; and former field boundaries and extensive rig and furrow. This links with rig and furrow in no. 42.	N/A	Inland: 125m Deep top-soil c. 15mOD
45	Langskaill, Birsay and Harray	23553 24778	Poss. settlement	**345742**	Archaeological watching brief (ORCA 2012). Pipe trench N of Langskaill revealed a possible hearth and post hole: suggested as prehistoric or V/LN.	N/A	Inland: 800m c. 24mOD
46	Netherskaill/ Langskaill, Birsay and Harray	2349 2457	Poss. V/LN settlement	**1917**	RCAHMS 1946; author survey 2011: mound now an amorphous area of disturbed ground by the stream, between Langskaill HY 2356 2465 and Netherskaill HY 2344 2453. Known locally as "The Castle".	N/A	Inland: 600m Deep top-soil c. 16mOD
47	Loch of Isbister, Birsay and Harray	2572 2334	Poss. broch	**1868**	RCAHMS 1946; MacKie 2002, 222-3: possible broch on a small island in the loch, with a causeway of large stones c. 60 m long and c. 4.5m wide leading to shore. No trace of broch structure now but evidence of a more recent landing place and planticrue.	c. 30m	Loch-side c. 20mOD

Table 4.03: The Mounds of West Mainland: Marwick Bay

	Name; Parish	Grid ref. HY	Category	Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
48	Knowe of Gairso, Birsay and Harray	23480 22760 23480 22690	Burial mounds	**1908**	RCAHMS 1946; OBP 1993: two mounds on the slopes of Vestra Fiold: visible for 500m from NW-NE, and from the coast to W. 1: HY 23480 22760 with stones of possible kerb and cist seen on W side. 2: HY 23480 22690	1: 18m 2: 14m	Inland hillside c. 85mOD
49	Vestra Fiold, Birsay and Harray	2408 2184 237 217 2415 2208 2416 2209 2416 2213 2417 2214	Poss. chambered cairn Indeterminate Burial mounds	**1898** **1924** **1925**	RCAHMS 1946; Davidson and Henshall 1989, 185-6; DES 3 (2002), 88 (possible Neolithic quarry); OBP 1993: disturbed mound on a false crest. Mound within a walled sub-oval enclosure c. 250m diam. mound now lost. DES 1998, 71: four disturbed mounds in a line in a prominent location visible from S-E for up to 2km, overlooking Skara Brae. Topographic survey, geophysical survey and excavation were undertaken in June 1998.	c. 22m c. 4m 8m 13m 12.5m 10m	Inland hillside 105mOD 122mOD
50	Knowes of Yonbell, Sandwick	2457 2264 2456 2251	Burial mounds	**1901**	RCAHMS 1946; OBP 1993: two eroded but conspicuous turf-covered mounds; one reported to have produced a steatite urn, one has protruding stonework and is visible to S and W; second is visible to the E and W.	12m 12m	Hillside 102mOD 95mOD
51 **51a**	Hill of Cruaday, Sandwick (Holy Kirk) Newbigging	2495 2163 2479 2162 2526 2205 2526 2207	Poss. chambered cairn Indeterminate Poss. burial mounds	**1904** **1922** **1855**	RCAHMS 1946; Davidson and Henshall 1989: called "Holy Kirk" in NSA and Original Name-Book: remains of poss. chambered cairn on the SE slope of the hill with visible orthostats and stonework. OBP 1993: disturbed mound. RCAHMS 1946; OBP 1993: two turf-covered stony mounds on a ridge; the larger is fenced.	c. 14m c. 4m 13.5m 5m	Hillside c. 90mOD Ridge c. 60mOD
52	Quinni, Birsay and Harray	2550 2269 2548 2288	Poss. burial mound Poss. burial mounds	**1867** **1845**	RCAHMS 1946; OBP 1993: reported to have contained a cist, now disappeared. RCAHMS 1946: three destroyed burial mounds.	c. 12m N/A	Hillside c. 50mOD
53 **53a**	Linna Breck	2544 2474 2537 2488 2618 2488	Prehis settlement Poss. burial mounds Indeterminate	**1851** **1877** **334034**	DES 1978, 17: farming complex, late-second to early-first millennium BC. RCAHMS 1946: two of five stony and highly visible mounds described in RCAHMS survive. OBP 1994: two mounds recorded.	N/A 7m 5m 5m	Spur c. 40mOD c. 45mOD
54	Knowe of Quian Brussti, Birsay and Harray	2567 2249	Poss. prehistoric burial	**1888**	RCAHMS 1946; Davidson and Henshall 1989: disappeared poss. chambered cairn.	N/A	Inland c. 40mOD
55	Knowe of Flaws, Birsay and Harray	2313 2434	Poss. chambered cairn	**1910**	RCAHMS 1946; OBP 1993; BSLAP DSR 2009; author survey 2011: much damaged turf-covered mound containing stones with stone walling visible.	c. 35m	Inland: 200m

Table 4.03: The Mounds of West Mainland: Marwick Bay

	Name; Parish	Grid ref. HY	Category	Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
							c. 6mOD
56	Leequoy, Birsay and Harray	2397 2502	Burnt mound	**1808**	RCAHMS 1946: crescent-shaped turf-covered mound, with a scatter of burnt stones, close by a stream.	c. 10m	Inland c. 35mOD
57	Knowe of Eversti, Birsay and Harray	2300 2288	Burnt mound	**1919**	RCAHMS 1946: turf-covered mound, with burnt stones, close by the Burn of Eversti.	c. 10m	Inland c. 35mOD
58	Knowe of Garraquoy, Birsay and Harray	2374 2370	Burnt mound	**1909**	RCAHMS 1946: slightly crescentic turf-covered mound, with burnt stones close by a stream.	c .10m	Inland c. 20mOD
59	Knowe of Dale, Birsay and Harray	2495 2433	Burnt mound	**1911**	RCAHMS 1946: eroded and robbed mound by wet ground, burnt stones reported.	c. 18m	Inland c. 20mOD
60	Knowe of Netherskaill, Birsay and Harray	2341 2424	Burnt mound	**1914**	RCAHMS 1946; author survey 2011: barely visible rise in ploughed field: burnt stone on the surface and reports of darker soil; near a stream.	N/A	Inland c. 8mOD
61	Knowe of Scorn, Birsay and Harray	2498 2388	Burnt mound	**1915**	RCAHMS 1946: damaged, spread mound on the edge of marshy ground, with burnt stone and possible internal construction.	c. 18m	Inland c. 20mOD
62	Upper Linklater, Sandwick	2601 2208	Burnt mound	**1860**	RCAHMS 1946: two mounds once visible; one plough-reduced mound remains near to old well with burnt stones.	N/A	Inland c. 30mOD
63	Rubreck, Birsay and Harray	2445 2483	Indeterminate	**1897**	RCAHMS 1946: four small poss. burial mounds now ploughed out.	N/A	Ridge c. 75mOD
64	Knowe of Holland, Birsay and Harray	2468 2361	Indeterminate	**1912**	RCAHMS 1946: large turf-covered mound full of stones, some protruding.	35m	Inland c. 45mOD
65	Holland, Birsay and Harray	2455 2350	Indeterminate	**1913**	RCAHMS 1946; OBP 1993: turf-covered mound with stone, with surrounding ditch.	5m	Hillside c. 55mOD
66	Berrydale, Birsay and Harray	2617 2463	Indeterminate	**1880**	RCAHMS 1946; OBP 1993: mound spread by ploughing, some stones.	9m	Hillside c. 30mOD
67 **67a**	Ravie Hall Raviehall, Birsay and Harray	2560 2485 2596 2496 2597 2496 2600 2493	Indeterminate	**1885** **1886**	RCAHMS 1946: only very slight mound left. RCAHMS 1946; OBP 1993; three turf-covered bowl-shaped mounds, on a conspicuous crest.	N/A 10m 5m 4m	40mOD Hillside c. 60mOD
68	Ravie Hill, Birsay and Harray	2680 2500	Burial mounds	**1792**	RCAHMS 1946; OBP 1993: barrow cemetery, partially excavated poorly recorded: visible from loch. Originally eight; three ploughed out. Ravie Hill 1	10m	Spur c. 30mOD

Table 4.03: The Mounds of West Mainland: Marwick Bay

	Name; Parish	Grid ref. HY	Category	Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
		2673 2511 2680 2500 2679 2505 2677 2505			Ravie Hill 3 Ravie Hill 4 Ravie Hill 5 Ravie Hill 6	12m 11.2m 9m 9m	
69	*Gairsty, Sandwick [Link to Table 4.01]*	*2632 2046*	*Indeterminate*	***1859***	*RCAHMS 1946: Two small mounds, now no trace.*	*N/A*	*Inland c. 30mOD*

1. **Locations defined as follows:**

   Coast-edge: between Mean High Water Line and c. 100m inland;

   Inland: approximate distance inland from nearest Mean High Water Line: calculated only for known/possible settlement mounds.
2. **Geology:** drift geology given where possible.
3. **Italicised entries:** non-mound/non-chapel evidence of relevance; no. 69 is the link to the mound table for the Bay of Skaill.

Reference Bibliography for Table (all included in Main Bibliography)

Downes, J. 1998, 'Vestrafiold (Sandwick parish), survey and excavation of burial mounds', *DES,* p. 71.

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Table 4.04: Mound location and mound-related building techniques: Marwick Bay

	Viking Houses, Marwick Bay
General	
500m or less from coast/on arm of bay	Coast-edge
Built into windblown sand	No
Constructed on an existing settlement mound or natural hillock/rise	Yes
Overlooking significant Iron Age settlement: brochs/ prehistoric funerary monuments	?
Near or possessing *skáli*-names	Yes
Built over and into pre Viking-Late Norse structures and middens and/or preceding Viking-Late Norse structures and middens, resulting in archaeological layers of structures, midden-type material, yards and surfaces,	Yes
Extensive, frequent and undisguised modifications and rebuilding, sometimes linked to change of use e.g. from byre to domestic; or elongation/shortening of the main longhouse[1]	Yes
Addition of ancillary buildings and annexes to ends and sides of longhouses; often joined by passage, walls, yards	?
Use of stone (flags/beach cobbles), turf and midden in building; wood used for internal features and roof structures	Stone and turf
Applications of a range of midden-type material	
Accumulation and storage of midden-type material often for future re-use	Probably
Stabilising external work/pedestrian surfaces with midden-type material, usually mixed with sand: "sheet midden" (refuse, some redeposited from a midden store, scattered on the ground)	Yes
Structured midden: deposited deliberately to build up mounds and stabilise slopes, sometimes held in place by arcs of stone/ rough, low stone walls	?
Creating floors using midden-type material: clay-rich/ash-rich material often used on internal floors	Yes
Using midden-type material as wall-core and as revetting for single-faced walls	Yes
Digging down into stable midden-type material accumulated around existing structures to build walls, and into abandoned structures infilled with midden-type material and/or partially levelled	?
Walls and internal features	
New walls built against old walls, sometimes incorporating existing courses (also seen in the Iron Age, especially building of new walls inside old ones to reduce internal area), often linked to digging down into floors/midden-type material	?

[1] A typical sequence might be: initial relatively small domestic structure with separate out-houses; addition of a byre-end; addition of yards, passages and pathways and changes to out-buildings creating a connected complex of buildings; extension of the domestic end; decline in use; use as animal pens or midden storage; abandonment.

Table 4.04: Mound location and mound-related building techniques: Marwick Bay

Partially demolishing and then re-using remnants of walls	Yes
Building directly over and/or incorporating walls, usually when internal surfaces had been raised by both floor accumulations and deliberate rapid infilling of buildings	Yes
Re-aligning or extending walls, but not attempting to match building techniques or existing alignment; extension walls often have obvious kinks marking new build and use different size/shape of stones and/or courses	?
Shortening buildings with new/modified internal and external walls, and partitioning buildings with the insertion differently built cross- or partition-walls	?
Frequent modification of internal features often associated with floor accumulation and/or change of use	?
Frequently found internal features**: s**tone-lined and capped drains; orthostatic bench supports, boxes, and compartments; small and perhaps sequential peripatetic hearths; chock-stones and partitioning using chock-stones and wood/hurdles; repeated re-paving and use of areas of rough paving	Yes

Table 4.05: The Mounds of West Mainland: Birsay Bay

	Name; N.B. all in parish of Birsay and Harray	Grid ref. HY	Category	Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
1	St Peter's Chapel and Monastery, Brough of Birsay	23977 28513	Prehis -V/LN settlement **Multi-period** Chapel	**1796**	RCAHMS 1946; Curle 1982; Hunter 1986; Morris 1989, 1996; Radford 1959; DES 1993: sixth-century monastery with chapel, graveyard and enclosure wall; ninth-eleventh century V/LN settlement; V/LN chapel, possible cathedral. V/LN houses on cliff-edge. 1993: midden, occupation layers and three phases of walling recorded after storm: below consolidated cliff-edge V/LN houses. ***See discussion in text: consolidated remains in Guardianship***	N/A	Brough/ Coast-edge 5-10mOD
2	Little Brough, Brough of Birsay	2365 2827	Poss. prehis - V/LN settlement	**118534**	RCAHMS 1946; Morris 1996: no archaeological notes but a building-plan clearly visible in this area.	N/A	Coast-edge c. 10mOD
3	Brough of Birsay	2350 2825 to 2404 2865	Poss. prehis - V/LN settlement	**296136**	Griffiths, DES 2007: geophysical survey undertaken from 'Peedie Brough' to the NE edge of Guardianship area. Anomalies confirmed significant settlement remains along cliff-edge with foci towards known settlement site and Peedie Brough. Anomalies decreased away from cliff edge, but possible pits and linear features up-slope.	N/A	Brough Coast-edge c. 10m OD
4	Brough of Birsay	2342 2853	Poss. prehis burial	**306777**	Small rescue excavation retrieved contents of cist eroding from NW coast.	N/A	Brough Coast-edge
5	Knowe of Buckquoy, Point of Buckquoy	2448 2820	Poss. prehis - V/LN settlement	**1799**	RCAHMS 1946 (II), 18-19; Morris 1989; DSR 2005: mound on a platform: partial excavation by Fraser revealed two lines of masonry, paving, peat-ash and midden. Protruding stones visible: mound 1.2m high. Not a stalled cairn.	23m	Coast-edge WBS c. 10mOD
6	Point of Buckquoy	2428 2839	Prehis settlement **Poss. multi-period**	**1800** **81178**	RCAHMS; Morris 1989, 1996: excavation 1960 (F. T. Wainwright) revealed remains of two stone-built structures with lowest course of upright stones; and separate circular, kerbed hearth. Finds included shells; animal, fish and bird bone; roman pottery and sherds of tenth-twelfth century and late Pictish date. Earlier midden deposits found. 1980 excavations linked these structures to midden material in the cliff-face on S side of Point of Buckquoy. Remains of earlier phase of building beneath that midden. Mammal bone from the midden gave radiocarbon date in second millennium BC (GU-1557).	c 20m+	Coast-edge WBS 5-9mOD
7 **7b** **7c** **7d** **7e**	Point of Buckquoy	2426 2838 2426 2839 2426 2835 2432 2831 2434 2828	Poss. prehis- V/LN settlement Indeterminate	**1814** **1817** **1818** **1820** **1821**	RCAHMS; Morris 1989: midden, burnt stones, stone spreads and structural remains in various erosion sections around north-western edge of Point of Buckquoy.		

Table 4.05: The Mounds of West Mainland: Birsay Bay

	Name; N.B. all in parish of Birsay and Harray	Grid ref. HY	Category	Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
7f		2435 2825					
8	Point of Buckquoy	2429 2840	Poss. prehis settlement	**1813**	RCAHMS; Morris 1989: two walls visible in erosion section: see no.6 above - large horizontal slabs under midden to the W of building remains.	c 10m	Coast-edge c. 5m OD
9	Point of Buckquoy	244 282 centre A: 2446 2835 B: 2437 2833 C: 2443 2826 F: 2442 2838	Indeterminate	**1801**	RCAHMS; Morris 1989: five large turf-covered mounds on Point: Mound A: any protruding stones hidden by ruined sheepfold Mound B: circular with smalls humps to E and S; truncated, disturbed Mound C: dumb-bell shaped mound, amorphous disturbed area Mound D: no. 6 above; Mound E: no. 9 below; Mound F: circular, c. 0.4m high	A: 18m B: 22m C: 20m F: 3.5m	Coast-edge and fields WBS Up to c. 7mOD
10	Point of Buckquoy	2464 2830 centre 243 284 to 250 282	Poss. prehis - V/LN settlement **Multi-period** Poss. prehis burial	**269110**	RCAHMS; DES 2003, 101; DSR 2004: rapid topsoil magnetic susceptibility mapping undertaken on three western fields towards the Point. Five mounds gave a range of responses: some were affected by activity/burning; others, e.g. 9c, could be burial mounds. In easternmost field, a wide spread of enhanced magnetic susceptibility detected towards E edge. Targeted magnetometry followed. Mound internal structures were complex: some, possibly rectilinear, stone structures, later modified. The gaps between the mounds showed subtle linear features and small groups of pit-like anomalies: possible Iron Age/Pictish activity. An igneous dike runs along N edge of promontory. The eastern field revealed a linear feature (possible wall and ditch) crossing the peninsula neck. This feature respected a group of anomalies to the W: possible rectilinear settlement features, perhaps V/LN Norse/medieval date. Two geophysical anomalies excavated in 2004. An L-shaped trench was excavated over a linear anomaly immediately W of the Knowe of Buckquoy revealing a U-shaped ditch with no finds. In the N of the same field, an E-W linear anomaly was investigated, uncovering a substantial wall foundation on a different alignment to current field pattern; no dating evidence found.		
11	Point of Buckquoy	2436 2823	Prehis - V/LN settlement **Multi-period** V/LN burial Prehis burial	**1802**	RCAHMS; Morris 1989; Ritchie 1979: excavations 1970-1 in long, low mound revealed remains of five major structural phases from eighth-early tenth centuries. Mid-late-tenth-century male skeleton inserted into mound of ruined buildings; grave goods included early-tenth-century bronze ring-pin, half a silver penny of Edmund (AD940-6), iron knife and javelin-head, and	c. 20m	Coast-edge WBS c. 5mOD

Table 4.05: The Mounds of West Mainland: Birsay Bay

	Name; N.B. all in parish of Birsay and Harray	Grid ref. HY	Category	Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
					whetstone. Below were three V/LN longhouses, representing parts of wider complex. Finds included bone pins and combs, spindle whorls, iron knife-blades and a stone game-board. The longhouses over-lay a complex of circular and sub-rectangular structures: finds included bone pins, iron knife-blades, pottery, and an ogham-inscribed spindle whorl. The earliest phase was fragmentary remains of a post-broch style cellular building. The last of the structures underlying the longhouses was abandoned for some time before the first longhouse was built. ***See discussion in text***		
12	Point of Buckquoy	2427 2834	Prehis settlement Nausts	**1811**	RCAHMS; Morris 1989: midden in erosion section; cleaning in 1978 exposed Bronze Age structural remains with later nausts above. More midden to W. Second millennium BC radiocarbon dates obtained from middens (GU-1222) and (GU-1556).	Cuttings 5 and 6	Coast-edge WBS c. 5mOD
13	Red Craig, Birsay	2448 2816 2438 2820	Prehis-V/LN settlement **Multi-period**	**1803** **1805**	RCAHMS; Morris 1989: wall remains in erosion section; resistivity survey revealed figure-of-eight poss. prehis structure and corbelled building. Excavation produced, two fire-pits and later hearth; few artefacts. Radiocarbon dates in Area 3 gave eighth-early ninth century date ranges (GU-1230), (GU-1958) and (GU-1959). Area 4 to E produced modern remains. Area 5 produced much eroded building at right-angles to that in Area 3. Stone gaming board found at2466 2807; glass bead at 2448 2816.	Areas 3-5	Coast-edge Clay/WBS c. 5mOD
14	Brough Road, Birsay	2466 2807	V/LN settlement V/LN burial	**1804**	RCAHMS; Morris 1989: erosion exposure of midden material and stone slabs covering an E-W aligned skeleton with knife by the left arm: grave dug into upper layers of the V/LN midden: radiocarbon date on skeleton in late-eighth to early-ninth century (GU-1555). Further excavation revealed more midden, flagged surface and stone spread, possibly a cairn for the burial. Radiocarbon date from sand below midden gave early-eighth century range (GU-1955); lower midden gave tenth-eleventh century range (GU-1667); and upper midden gave late-ninth to early tenth century range (GU-1980).	Cutting 2/Area 2	Coast-edge WBS c. 5mOD
15	Brough Road, Birsay	2469 2803	Poss. settlement Poss. burial	**1806**	RCAHMS; Morris 1989: possible structural remains in erosion section; human bone eroded from same area.		
16	Brough Road, Birsay	2464 2808 centre 2467 2806	Prehis-V/LN burials Poss. V/LN	**73729** **73730** **73552**	RCAHMS; Morris 1989: resistivity survey: high resistance at: 1. At 73552: human bone in cliff-section, long-cist excavated with two partial N-S aligned skeletons separated by a flagstone. Radiocarbon dates, skeleton 1: fourth-	Area 1	Coast-edge Clay/ WBS c. 5mOD

Table 4.05: The Mounds of West Mainland: Birsay Bay

	Name; N.B. all in parish of Birsay and Harray	Grid ref. HY	Category	Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
		2467 2805 2462 2810 2464 2808	settlement Indeterminate	**73553** **73720** **73550**	century (GU-1550); skeleton 2: fourth-century range (GU-1551) (Cutting 1). Cist covered by eroded cairn, with skeleton, aligned roughly E-W dug into top: radiocarbon date skeleton tenth-century range (GU-1552). 2. At 73553: eroded cairn excavated, overlying NW-SE extended burial, radiocarbon date on skeleton, third-century range (GU-1554); poss. V/LN E-W long-cist grave dug into midden deposits sealing cairn: radiocarbon date on skeleton eighth to early-ninth century range (GU-1553), mammal bones in lower midden radiocarbon dates eighth-ninth century range (GU-1956) and (GU1957); and sand over the midden eighth-century (GU-1979); 3. At 73720, NW end of the survey area: stones in section; and 4. At 73550 human bone fragments and upright stones marking poss. cist.		
[***17***	*Birsay Village, Earl's Palace* [3]	*24803 27775*		***1836*** ***1833***	*RCAHMS remains of the 'palace' of the Earls of Orkney, built between 1574 and the end of the sixteenth century.* *A bronze ring-headed pin, 'found sticking through the back part of a human skull near the Earl's Palace, Birsay'.*]		
[***18***	*Birsay Village, Bishop's Palace*	*2474 2762*		***1837***	*RCAHMS; Radford 1959: Bishop's Palace probably moved from Borough of Birsay, at an unknown date. No structural remains visible but dilapidated piece of walling, c. 0.6 m. wide, 0.9 m. long and 1.0 m. high, attached to the south wall of the old schoolhouse, reputed locally to be part of the close linking the Bishop's Palace to the old church. Several old worked stones are incorporated into neighbouring buildings and large amount of stone in surrounding ground.*]		
19	Birsay Village, Birsay Kirk	24759 27702	V/LN church	**1838**	RCAHMS; Barber 1982; Morris 1996: parish church dated 1664, site possibly of Earl Thorfinn's Christ's Church founded AD1050-1064; the remains of an older church, including a circular raised wall, at the east end of current church may be the remains of Thorfinn's foundation. Excavation in 1982 confirmed the existence of an earlier, possibly twelfth-century church of some architectural sophistication.		Coast-edge WBS c. 7mOD
20	Birsay Village, Beachview	2474 2757 2477 2759 2470 2754	V/LN settlement Poss. prehis settlement **Multi-period**	**1807**	RCAHMS; Morris 1996: evidence of extensive occupation around Beachview. Excavations yielded major V/LN settlement; also V/LN upper levels on mound site at 2470 2754; with poss. prehis lower levels. ***See discussion in text***	Two mounds c. 100m	Coast-edge WBS 10mOD

Table 4.05: The Mounds of West Mainland: Birsay Bay

	Name; N.B. all in parish of Birsay and Harray	Grid ref. HY	Category	Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
21	Birsay Village, The Bungalow	24858 27463	Indeterminate	**N/A**	Author survey 2013: amorphous mounds and disturbed ground E of bungalow on village road. No visible stone.	c. 30m	Coast-edge WBS 16mOD
22	Oxtro Broch, Birsay and Harray	2537 2678	Broch Poss. V/LN burials	**1789**	RCAHMS: Mackie 2002: excavated 1847: undated cist burials inserted into broch ruins; yielded finds from most of first-millennium, including V/LN bronze ringed-pin and penannular brooch. Truncated, grass-covered mound with visible stone.	c. 25m	Inland Loch-side 26m OD
23	Point of Snusan, Birsay Bay	2458 2730	Indeterminate	**1819**	RCAHMS; author survey 2010: amorphous, sand obscured, circular mound reported to have contained stones; none visible.	c. 10m	Coast-edge WBS c. 7m OD
24	Mount Misery, Birsay Bay	2458 2735	Indeterminate Poss. settlement	**1830**	RCAHMS 1946; author survey 2010: large, amorphous sandy mound, examined in 1931 and found to be: 'mainly clean sand with a few stones which showed no definite trace of a building ... A few crude stone implements were discovered ... There was no trace whatever of burnt bones or ashes' , J. Fraser *Orkney Herald* 16 September 1931.	c. 20m	Coast-edge WBS c. 5mOD
25	Sævar Howe, Birsay Bay	2460 2700	V/LN -prehis settlement **Multi-period** V/LN-prehis burials	**1835**	RCAHMS; DSR 2008; Farrer 1862, 1865 and 1868; Hedges 1983: large, much eroded mound with many sand blow-outs. 860s excavation revealed stone building remains with wall enclosing flagged yard, surrounded by extensive, thick midden. Late Iron Age finds; long-cist cemetery dug into abandonment layers above. Two small cists found near building and third with Celtic 'Bell of Birsay'. Hedges' excavation confirmed three phases: fragmentary Pictish and V/LN buildings and finally the long-cist cemetery. ***See discussion in text***	c. 50m	Coast-edge WBS c. 14mOD
26	Abune-the-Hill, Birsay and Harray	2841 2845	Poss. chapel	**1773**	RCAHMS; author survey 2013: reputed chapel site, many stones reported when ploughed. Now barely visible grassy mound with no trace of stones. Near farm of Bea 27979 28602 (late-sixteenth-century farmhouse, probably original head-settlement).	N/A	Inland Pasture c. 40mOD
27	Knowe of Crustan, Birsay and Harray	2747 2897	Prehis burial	**1790**	RCAHMS 1946; author survey 2013: much eroded mound in a prominent position on a ridge; once topped by a standing stone. Probably excavated in 1852 and said to contain 'burnt bones in a common cell'.	11m	Coast-edge Pasture 93mOD
28	Kibister Hill, Birsay and Harray	2843 2637 centre	Prehis burials	**1767**	RCAHMS; OBP 1993: 13 grass-covered, bowl-shaped mounds recorded in 1993; two have been levelled. Several with evidence of a cist; one cist	5-15m	Ridge top c. 100mOD

Table 4.05: The Mounds of West Mainland: Birsay Bay

	Name; N.B. all in parish of Birsay and Harray	Grid ref. HY	Category	Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
		2863 2635 2864 2634			uncovered during ploughing. 180m E of main group are two more barrows. The mounds are prominent for 750m to NW and visible E and SE for 750m.		
29	Kirbister, Knowe of Nesthouse	2794 2568	Prehis settlement	**1791**	RCAHMS: mutilated Iron Age settlement mound on peninsula on shore of Loch of Boardhouse: surviving walling recorded in 2003.	c. 30m	Loch-side 15mOD
30	Stanerandy, Birsay and Harray	27460 27680 27470 27680 27490 27690	Prehis burials	**1794**	RCAHMS; OBP 1993: three grass-covered, disturbed bowl-shaped mounds. Visible to the S for c. 1.5km down a small valley to loch; no stones seen.	12m 13m 12m	Hill-top 90mOD
31	Rantan, Birsay and Harray	2959 2823 2959 2825 2957 2826	Prehis burials	**1762**	RCAHMS; OBP 1993. 3 mounds: 1. Eroded, mutilated grass-grown mound. 2. Opened in 1877 and found to contain a cist with ashes. 3. A short cist containing a beaker 'Late Beaker' was found with stones c 40m E of the above mounds during ploughing.	16m 9m Gone	Natural rise c. 43mOD
32	Knowes of Lingro, Birsay and Harray	2841 2904	Prehis burials	**1775**	RCAHMS; OBP 1993: four grass-covered disturbed bowl-shaped mounds. One with cist visible in centre and prominent on skyline.	7m-17m	Ridge 40mOD
33	Newan, Birsay and Harray	2710 2777	Prehis burials	**1776**	RCAHMS; Davidson and Henshall 1989: damaged chambered cairn: visible stones, prominent location.	15m	Hillside 90mOD
34	Garsetter, Birsay and Harray	256 278	Prehis burial	**1785**	RCAHMS: short cist found during ploughing: disappeared for some time.	N/A	Inland
35	Quoyhorrie, Birsay and Harray	2867 2665	Indeterminate	**1770**	RCAHMS: two mounds now disappeared.	N/A	Hillside 35mOD
36	Mound, Birsay and Harray	2753 2906	Indeterminate	**N/A**	RCAHMS; author survey 2013: amorphous oval mound much mutilated and difficult to determine.	11m	Inland 89mOD
37	Quoyhorrie, Birsay and Harray	28460 27010 28550 27070	Indeterminate	**1769**	RCAHMS; OBP 1993: two/three grass-covered mounds.1: visible kerb, another possible mound 5-6m to the E. 2: ruins of another mound lie 5m S. Mounds visible from the loch 750m to the E.	4m 9m	Hillside 40mOD
38	Queena, Birsay and Harray	2776 2783	Indeterminate	**1777**	RCAHMS; OBP 1993: tow poss. burial mounds. Flint arrow heads and flint axe reported in the vicinity	16m 7m	Hillside 70mOD
39	Stanerandy, Birsay and Harray	2674 2761	Indeterminate	**1768**	RCAHMS; OBP 1993: small, very badly damaged mound surmounted by two standing stones.	c. 12m	Hillside 66mOD
40	Roseview, Birsay and Harray	2466 2537	Indeterminate	**1798**	RCAHMS: now disappeared, poss. prehistoric burial mound(s). *[Link Table 4.03]*	N/A	Ridge c. 80mOD
41	*Windbreck, Birsay and Harray*	*2460 2524*	*Indeterminate*	***1839***	*RCAHMS: now disappeared, poss. prehistoric burial mound [Link Table 4.03]*	*N/A*	*Ridge c. 80mOD*

Table 4.05: The Mounds of West Mainland: Birsay Bay

1. **Locations defined as follows:**

   Coast-edge: between Mean High Water Line and c. 100m inland;

   Inland: approximate distance inland from nearest Mean High Water Line: calculated only for known/possible settlement mounds.
2. **Geology:** drift geology given where possible.
3. **Italicised entries:** non-mound/non-chapel evidence of relevance; no. 41 is the link to the mound table for Marwick Bay.

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Table 4.06: Mound location and mound-related building techniques: Birsay Bay

	Beachview	**Sævar Howe**
General		
500m or less from coast/on arm of bay	Coast-edge	Coast-edge
Built into windblown sand	Yes	Yes
Constructed on an existing settlement mound or natural hillock/rise	Probably both	Yes
Overlooking significant Iron Age settlement: brochs/ prehistoric funerary monuments	Possibly	Possibly
Near or possessing *skáli*-names	Yes	Yes
Built over and into pre Viking-Late Norse structures and middens and/or preceding Viking-Late Norse structures and middens, resulting in archaeological layers of structures, midden-type material, yards and surfaces,	Yes	Yes
Extensive, frequent and undisguised modifications and rebuilding, sometimes linked to change of use e.g. from byre to domestic; or elongation/shortening of the main longhouse[1]	Yes	Possibly
Addition of ancillary buildings and annexes to ends and sides of longhouses; often joined by passage, walls, yards	Yes	?
Use of stone (flags/beach cobbles), turf and midden in building; wood used for internal features and roof structures	Yes	Yes
Applications of a range of midden-type material		
Accumulation and storage of midden-type material often for future re-use	Yes	Probably
Stabilising external work/pedestrian surfaces with midden-type material, usually mixed with sand: "sheet midden" (refuse, some redeposited from a midden store, scattered on the ground)	Probably	?
Structured midden: deposited deliberately to build up mounds and stabilise slopes, sometimes held in place by arcs of stone/ rough, low stone walls	Probably	Yes
Creating floors using midden-type material: clay-rich/ash-rich material often used on internal floors	Yes	Yes
Using midden-type material as wall-core and as revetting for single-faced walls	?	?
Digging down into stable midden-type material accumulated around existing structures to build walls, and into abandoned structures infilled with midden-type material and/or partially levelled	Probably	Yes?
Walls and internal features		
New walls built against old walls, sometimes incorporating existing courses (also seen in the Iron Age, especially building of new walls inside old ones to reduce internal area), often linked to digging down into floors/midden-type material	Yes	Yes

[1] A typical sequence might be: initial relatively small domestic structure with separate out-houses; addition of a byre-end; addition of yards, passages and pathways and changes to out-buildings creating a connected complex of buildings; extension of the domestic end; decline in use; use as animal pens or midden storage; abandonment.

Table 4.06: Mound location and mound-related building techniques: Birsay Bay

Partially demolishing and then re-using remnants of walls	Probably	Probably
Building directly over and/or incorporating walls, usually when internal surfaces had been raised by both floor accumulations and deliberate rapid infilling of buildings	Yes	Yes
Re-aligning or extending walls, but not attempting to match building techniques or existing alignment; extension walls often have obvious kinks marking new build and use different size/shape of stones and/or courses	Yes	?
Shortening buildings with new/modified internal and external walls, and partitioning buildings with the insertion differently built cross- or partition-walls	Probably	?
Frequent modification of internal features often associated with floor accumulation and/or change of use	?	Yes?
Frequently found internal features**: s**tone-lined and capped drains; orthostatic bench supports, boxes, and compartments; small and perhaps sequential peripatetic hearths; chock-stones and partitioning using chock-stones and wood/hurdles; repeated re-paving and use of areas of rough paving	?	Yes

Table 5.01: The Mounds of East Mainland: Deerness

	Name; all Sandwick	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
1	Skaill	5881 0651	Prehis-V/LN settlement **Multi-period**	**2932**	RCAHMS 1987; Gelling 1984, 1985; Buteux 1997: V/LN and later medieval buildings investigated in the farmyard; prehistoric settlements excavated c. 80m to SW and in fields c. 200m NW of the farmstead. ***See discussion in text***	Site 2 once on mound c. 30m	Coast-edge WBS c. 8mOD
2	St. Mary's/ St Ninian's	5886 0635	Church	**2931**	Low 1879; RCAHMS 1946; RCAHMS 1987: the present church stands just NW of the medieval one (dedicated either to St Mary or to St Ninian). No trace remains: Low's 1774 sketches show a Romanesque church with two eastern round towers. A hogback monument now in the church stood in the NE corner of the churchyard.	N/A	Coast-edge WBS c. 6mOD
3	Brough of Deerness	5955 0873	Prehis-V/LN settlement Chapel	**2927**	RCAHMS 1946; RCAHMS 1987; Barrett 2008, 2009; Morris and Emery 1986: chapel surrounded by turf-covered building foundations of many structures. Excavations of chapel revealed earlier timber structure. ***See discussion in text***	N/A	Brough Glacial till c. 8mOD
4	Newark	5746 0413	Church V/LN burials (multiple)	**3033**	RCAHMS 1946; RCAHMS 1987; Brothwell 1977: farm on a broad mound. Erosion section c. 100m long has complex structural remains, midden deposits and remains of a chapel and a cemetery. Rescue excavation of the chapel and cemetery suggested, on coin evidence, tenth-century date for chapel; curved structures discovered below chapel; sixteenth-century house built over chapel. ***See discussion in text***	c. 100m	Coast-edge WBS c. 3mOD
4a		5735 0437	Poss. V/LN settlement	**306766**	From OSMR: hole dug in dunes in January 2000 revealed a stone structure with floor levels: 7 courses of walling (0.9m high) remained in S and 4 courses (0.5m high) with signs of burning in N.		Inland:124m WBS c. 3m OD
5	Quoys	5729 0497	V/LN settlement	**3030**	RCAHMS 1987; Steedman 1980: nineteenth-century cottage demolished in 1974: beneath a layer of earth under N wall a well-constructed wall discovered. Under the cottage floor were two earlier floors within a layer c. 1m thick, including shell midden. Several V/LN objects discovered: three spindle whorls, whetstone, sandstone sinker, steatite fragment, lead weight, and a perforated bone disc. 2011 topsoil finds: folded lead strip with incised runes and fragment of broken medieval seal.	None visible	Inland: 650m Glacial till c. 16mOD
6	Ayre	58450 04230	Poss. prehis settlement	**306572**	From OSMR: in limited trenching, midden material was found. A "cist-like" structure protruded from the midden, which included ash-lenses, slag, shell, bone and bone objects, a stone mould and a sherd of probably Pictish pottery.	Broad spread mound	Inland:140m Glacial till c. 27mOD
7	Ayre	5852 0383	Poss. V/LN settlement	**3037**	RCAHMS 1987; Steedman 1980: 23m long erosion section of midden and stones. The midden included shell and hand-made pottery ('medieval date') associated with large structural stones. The coast opposite known as Howe Geo.	20m +	Coast-edge Glacial till c. 3mOD
		5857 0384			Just to E remains of two buildings reported on low beach cliff: W one c. 5m x 5m: three courses of walling; c. 3.5m visible protruding through turf; E building c 6m x	70m +	Coast-edge

Table 5.01: The Mounds of East Mainland: Deerness

	Name; all Sandwick	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
					4.5m, a few stones visible. Below is an erosion section c. 70m long with 25m of midden deposits visible, also some walling and floors.		Glacial till c. 3mOD
8	Riggin of Kami	5917 0743	Broch	**2934**	RCAHMS 1946; RCAHMS 1987; MacKie 2002; Steedman 1980: probable broch: stony mound at the head of a geo. Excavations in 1981-82 exposed a neatly-curving segment of broch-type ground-galleried wall but were cut short by the director Peter Gelling's death. Segment of curving wall and a possible entrance passage still visible.	30m +	Coast-edge Glacial till c. 12mOD
9	Stack of Mustack	5926 0743	Part of broch settlement	**2942**	RCAHMS 1946; RCAHMS 1987: eroded turf-covered mound on a sheer stack: three orthostatic stones visible. Extending from and once joined to Riggin of Kami above so perhaps part of broch-type settlement.	10m	Sea-stack Glacial till c. 9mOD
10	Backland	5804 0402	Poss. broch	**3038**	RCAHMS 1987; MacKie 2002; Steedman 1980: irregular mound: trial trench reported to have revealed a curved wall c.3 m high but the location of the trench unclear. There are traces of an outer ditch to the NW.	c. 15m	Coast-edge WBS c. 4mOD
11	Howan, Skaill	5889 0633 5886 0635	Prehis settlement	**2935**	RCAHMS 1946; RCAHMS 1987; MacKie 2002; Steedman 1980: turf-covered traces of a possible bank or wall, 7m in diameter, behind possible midden deposits seen in erosion section. A 1964 trial trench in the mound showed sand and a deeply-buried dark ancient plough soil, with ard-marks, probably Bronze Age. In 1982, possible fragmentary prehistoric buildings were found between Howan and the SE corner of the Churchyard dyke (HY5886 0635).	7m +	Coast-edge WBS c. 4mOD
12	The Howie	5885 0550	Indeterminate	**2936**	RCAHMS 1987; MacKie 2002; Steedman 1980: spread turf-covered sub-oval mound by cliff-edge. A small excavation exposed two curved passages, possibly below a rectangular building c. 14m x 8m. Possible chambered cairn/settlement	30m	Coast-edge Glacial till c. 8mOD
13	Upper Stove	5830 0740 (centred on) 5864 0706 5852 0728 5846 0726 5839 0726 5820 0730 5808 0772	Indeterminate	**2950**	RCAHMS 1987; Steedman 1980; DES 12008, 136-7: walkover survey in 2008 focused on six plough-damaged, turf-covered mounds noted by Steedman as having stony content. Upper Stove: cut on E side shows dark earth with rubble Upper Stove: reported as containing a cist Upper Stove: smaller Upper Stove: diffuse. All these mounds on a slight ridge Upper Stove: very diffuse Upper Stove: the biggest mound	10-35m	Inland: 600m+ Glacial till 15-35mOD
14	Cornquoy, Nevi	5865 0590	Indeterminate	**2958**	RCAHMS 1987; Steedman 1980: shapeless rise in a field: ploughing revealed a large vertical slab.	30m	Inland Glacial till

Table 5.01: The Mounds of East Mainland: Deerness

	Name; all Sandwick	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height
							c. 17mOD
15	Sandside	5915 0702	Indeterminate	**309548**	OSMR: burial discovered in a pipe trench parallel to the farm: only the top of the skull remained in situ; no associated structures seen. The skeleton probably lay on its side roughly N-S. There was a laird's house, in ruins by 1774, on the site of Sandside farm.	N/A	Coast-edge WBS c. 5mOD
16 **16a**	Barns of Ayre	5898 0427 583 042	Indeterminate Poss. prehis. burial	**3026** **306574**	RCAHMS 1987; Steedman 1980: low shapeless, stony mound surrounded by disturbed ground may be an old settlement site. OSMR: report of a stone cist discovered during ploughing: on rise overlooking sea.	20m N/A	Inland:145m Glacial till c. 18mOD Inland:300m Glacial till 30mOD
17	Point of Ayre	5906 0394	Indeterminate	**3028**	RCAHMS 1987; Steedman 1980: eroding mound with large stones visible in section.	8m	Coast-edge Glacial till c. 5mOD
18	Millfield	5743 0704	Burnt mounds	**2955**	RCAHMS 1987; Steedman 1980; two mounds recorded on high ground. One badly-damaged one survives; other was at HY5745 0693: fragments of burnt stone apparently visible after ploughing.	9m	Hillside Glacial till c. 57mOD

1. **Locations defined as follows:**
   Coast-edge: between Mean High Water Line and c. 100m inland;
   Inland: approximate distance inland from nearest Mean High Water Line: calculated only for known/possible settlement mounds.
2. **Geology:** drift geology given where possible.
3. **Italicised entries:** non-mound/non-chapel evidence of relevance; no. 69 is the link to the mound table for the Bay of Skaill.

Reference Bibliography for Table (all included in Main Bibliography)

Barrett, J. 2008, 'The Brough of Deerness', *DES* 9, 134-5.
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Brothwell, D. 1977, 'Newark', *Bulletin of the London Institute of Archaeology* 14.
Gelling, P. S. 1985, 'Excavations at Skaill, Deerness', in C. Renfrew (ed.), *The prehistory of Orkney,* Edinburgh: Edinburgh University Press, pp. 176-82.
Steedman, K. A. 1980, *The Archaeology of the Deerness Peninsula, Orkney*, Unpublished MPhil dissertation, University of Durham.

Table 5.02: Mound location and mound-related building techniques: Deerness

	Site 2, Skaill, Deerness
General	
500m or less from coast/on arm of bay	Less than 50m from coast
Built into windblown sand	Yes
Constructed on an existing settlement mound or natural hillock/rise	Yes: earlier structures and mound
Overlooking significant Iron Age settlement: brochs/ prehistoric funerary monuments	Near IA settlement; no known broch
Near or possessing *skáli*-names	Yes
Built over and into pre Viking-Late Norse structures and middens and/or preceding Viking-Late Norse structures and middens, resulting in archaeological layers of structures, midden-type material, yards and surfaces,	Yes
Extensive, frequent and undisguised modifications and rebuilding, sometimes linked to change of use e.g. from byre to domestic; or elongation/shortening of the main longhouse[1]	Yes
Addition of ancillary buildings and annexes to ends and sides of longhouses; often joined by passage, walls, yards	Probably
Use of stone (flags/beach cobbles), turf and midden in building; wood used for internal features and roof structures	Yes
Applications of a range of midden-type material	
Accumulation and storage of midden-type material often for future re-use	Midden found; not analysed
Stabilising external work/pedestrian surfaces with midden-type material, usually mixed with sand: "sheet midden" (refuse, some redeposited from a midden store, scattered on the ground)	Possibly
Structured midden: deposited deliberately to build up mounds and stabilise slopes, sometimes held in place by arcs of stone/ rough, low stone walls	?
Creating floors using midden-type material: clay-rich/ash-rich material often used on internal floors	Yes
Using midden-type material as wall-core and as revetting for single-faced walls	Yes
Digging down into stable midden-type material accumulated around existing structures to build walls, and into abandoned structures infilled with midden-type material and/or partially levelled	Yes

[1] A typical sequence might be: initial relatively small domestic structure with separate out-houses; addition of a byre-end; addition of yards, passages and pathways and changes to out-buildings creating a connected complex of buildings; extension of the domestic end; decline in use; use as animal pens or midden storage; abandonment.

Table 5.02: Mound location and mound-related building techniques: Deerness

Walls and internal features	
New walls built against old walls, sometimes incorporating existing courses (also seen in the Iron Age, especially building of new walls inside old ones to reduce internal area), often linked to digging down into floors/midden-type material	Yes
Partially demolishing and then re-using remnants of walls	Yes
Building directly over and/or incorporating walls, usually when internal surfaces had been raised by both floor accumulations and deliberate rapid infilling of buildings	Yes
Re-aligning or extending walls, but not attempting to match building techniques or existing alignment; extension walls often have obvious kinks marking new build and use different size/shape of stones and/or courses	Yes
Shortening buildings with new/modified internal and external walls, and partitioning buildings with the insertion differently built cross- or partition-walls	Yes
Frequent modification of internal features often associated with floor accumulation and/or change of use	?
Frequently found internal features**: s**tone-lined and capped drains; orthostatic bench supports, boxes, and compartments; small and perhaps sequential peripatetic hearths; chock-stones and partitioning using chock-stones and wood/hurdles; repeated re-paving and use of areas of rough paving	Many of these

Table 6.01: The Mounds of Westray

	Name	Grid ref. HY	Category	OSMR	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height	Area map
1	Quoygrew	4433 5065	V/LN settlement	**677**	DES 1997, 1998; Barrett 2012: V/LN structures and midden; ***see discussion in text.***	100m	Coast-edge Glacial till 5-6mOD	N
2	Hahouse, Aikerness, Bay of Skaill	4539 5119	Poss. V/LN settlement **Multi-period**	**680** **683**	CZA 1998; RCAHMS: shapeless mound: walling/structural remains and midden; little survives. Opened mid-twentieth century: roughly circular chamber and a long narrow passage. In shore section: kitchen-midden deposit visible, one potsherd and a bronze fragment found. Unlocated but ENE of 680 above: poss. burial with quern stone.	–	Coast-edge WBS 3mOD	N
3	Evertaft, Aikerness, Bay of Skaill	4554 5199	Poss. prehis-V/LN settlement **Multi-period**	**681**	CZA 1998; RCAHMS: eroding mound: drystone walls, shell midden. Barrett 2012, 31: RC14 date from low in eroding section: AD135 - 404; 5 OSL dates from AD125 – AD 1090.	60m	Coast-edge WBS 3mOD	N
4	Cleat	4670 4663 4657 4682	V/LN settlement **Multi-period?** Poss. V/LN settlement	**706** **703**	CZA 1998; DES 1997; RCAHMS: flagging and walling, midden incl. fish midden. DES 1997: test pit dug. Finds included V/LN spherical weight, steatite sherds and a femur head spindle whorl. Maleszka 2003: RC14 date AD870-1280 (TO-6344). CZA 1998; RCAHMS: large shapeless mound; plus poss. burials	30m + 20m +	Coast-edge WBS 2-3mOD Coast-edge WBS 4mOD	E
5	Tuquoy	4542 4397 4543 4313 [4551 4316]	Poss. prehis-V/LN settlement V/LN settlement Church	**870** **710** **892**	CZA 1998; RCAHMS: eroded mound with walling reported. Owen 1993: ***see discussion in text.*** Discussed with 710 above.	10m	All coast-edge WBS c. 4mOD	W
6	Skelwick, nr. Langskaill	4893 4524	Poss. V/LN settlement	**716**	CZA 1998; RCAHMS: large mound at head of Skel Wick Bay: midden, animal bone and stonework reported; associated but unlocated chapel.	40m	Coast-edge WBS 3mOD	E
7	Burness Loch	4291 4824	Poss. broch	**687**	RCAHMS: amorphous mound with stonework.	c. 30m	Loch-side Pasture 12mOD	N
8	Queena Howe	4250 4947	Broch	**690**	CZA 1998; DES 1977; RCAHMS: spread mound with midden, stonework and Iron Age pottery.	c. 20m	Coast-edge Rocky 7mOD	N
9	Hoorness	4227 4960	Poss. broch/ prehis settlement	**694**	CZA 1998; Hedges 1987; RCAHMS: midden-type material and walling in disturbed mound.	c. 30m	Coast-edge Rocky 8mOD	N

Table 6.01: The Mounds of Westray

	Name	Grid ref. HY	Category	OSMR	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height	Area map
10	Knoll of Skulzie, Bay of Pierowall	4472 4904	Poss. broch/ prehis settlement	**698**	CZA 1998; Hedges 1987; RCAHMS: midden and walling seen in mound now built over.	N/A	Coast-edge Built on	N
11	Knowe of Burristae, nr. Langskaill	4319 4293 4308 4295	Broch Poss. prehis settlement Chapel	**718** **723** **722**	CZA 1998; Hedges 1987; RCAHMS: assessed 2006 (EASE): considerable structural remains and Iron Age pottery. CZA 1998; RCAHMS: indeterminate mound with stonework. RCAHMS: Unlocated	c. 20m c. 10m	Coast-edge WBS Coast-edge WBS/ rock 6mOD	W
12	Peterkirk, Rapness	4998 4008 5002 4006	Broch Poss. settlement	**724** **726**	CZA 1998; RCAHMS; DES 2000: broch and extra-mural settlement. CZA 1998; RCAHMS: amorphous mound with walling, stonework and midden; two cairns nearby.	c. 25m c. 12m	Coast-edge Coast-edge Rocky 6mOD	S
13	Berst Ness, Knowe of Skea	4414 4181	Prehis settlement	**719**	DES 2000; Moore and Wilson 2001: on-going excavation: large mound, multi-phase prehis settlement site with burials. **See no. 26 below.**	c. 60m	Tidal islet 1mOD	W
14	Hodgalee, Bay of Tuquoy	4644 4473	Poss. broch/ prehis settlement	**725**	CZA 1998; RCAHMS: shoreline erosion revealed curved walling, stonework and midden with Iron Age pottery.	c. 24m	Coast-edge WBS 3mOD	W
15	Langskaill	4383 4287 4344 4256	V/LN settlement **Multi-period** Poss. settlement	**729** **867**	DES 2002, 2003: V/LN longhouse and Iron Age settlement: ***see discussion in text.*** CZA 1998; RCAHMS: mound with visible structural elements.	c. 30m 4.5m	Inland: 350m WBS 24mOD	W
16	Pisgah	43 48	Poss. settlement	**855**	RCAHMS: unlocated	-	-	-
17	Brough	4482 4791	Poss. broch/ prehis settlement	**865**	RCAHMS: large stony hillock in prominent spur location; possible stone sinker found nearby.	c. 80m	Inland: 400m 28mOD	E
18	Tafts	4963 4171	Poss. broch/ prehis settlement	**873**	CZA 1998; RCAHMS: abandoned farm on mound with stone and midden visible in erosion section.	c. 60m	Coast-edge WBS 4mOD	S
19	Sands of Woo	8111 4090	Poss. prehis-V/LN settlement	**887**	CZA 1998; RCAHMS: large mound with structure reported, now destroyed.	60m	Coast-edge Gone	S
20	Pierowall Quarry	4389 4905	Prehis settlement	**914**	RCAHMS; Sharples 1984: mound with settlement remains, burial cairn, and prehis finds. Now mostly destroyed.	c. 30m	Coast-edge WBS 13mOD	N
21	Links of Notland	428 493 4290 4910	Prehis settlement Prehis burial	**1976** **2043**	RCAHMS: under excavation by EASE archaeology; extensive multi-phase prehis settlement: ***see discussion in text.***	-	Coast-edge WBS 6mOD	W

Table 6.01: The Mounds of Westray

	Name	Grid ref. HY	Category	OSMR	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height	Area map
22	Trenabie	4432 5103	Prehis burial	**676**	CZA 1998; RCAHMS: uncertain site, no records beyond report.	-	Coast-edge WBS	N
23	Gallo Hill	4313 4617	Prehis burial/ indeterminate	**692**	RCAHMS: poss. burial site with modern cairn on top.	12.5m	Inland 700m on summit	W
24	Noup Head	3921 4971	Prehis burial/ indeterminate	**693**	RCAHMS: much eroded possible burial cairn.	5m	Coast-edge	N
25	Couters Hill	4173 4850	Prehis burial/ indeterminate	**699**	RCAHMS: no records beyond report.	-	Inland c. 650m on summit	N
26	Berst Ness, Knowe of Skea	440 420	Prehis burials	**720**	RCAHMS; DES 2000; Moore and Wilson 2001: four cairns associated with excavated settlement. **See no. 13 above.**	c. 13m	Headland 1mOD	W
27	Kestro	4471 4313	Prehis burial	**728**	CZA 1998; RCAHMS: no trace now of reported burial mound. **See no. 73 below.**	-	Coast-edge	W
28	Vere Point, Bay of Skaill	4583 5046	Prehis burial	**759**	RCAHMS: possible chambered cairn; no records beyond report.	-	Summit inland	N
29	Pierowall links	43 49	V/LN burials/ cemetery	**761**	Ashmore 2003; RCAHMS: at least 17 grave groups, no trace now. Based on nineteenth-century records; excavated seventeenth-century to 1863, could also be in Links between Pierowall and N coast. **See no. 31 below**.	-	Coast-edge WBS	N
30	Old Manse, Langskaill (at 4376 4272)	43 42 44 43	Poss. V/LN burials/ cemetery	**762** **763**	NSA/OSA; RCAHMS: unlocated burials. NSA/OSA; RCAHMS: unlocated burials.	-	Inland edge WBS	W
31	Links of Trenabie	44 50	Poss. V/LN burials	**856**	NSA/OSA; RCAHMS: alleged weapons burials in sand. **Poss. linked to no. 29 above.**	-	Coast-edge WBS	N
32	The Lum Head or Iphs	4220 4910	Prehis burial	**860**	RCAHMS: chambered cairn.	17m	Hill-shoulder	N
33	Knucker Hill	4286 4705	Prehis burial	**861**	RCAHMS: chambered cairn.	14m	Inland summit	W
34	Kurkquoy	43 47	Poss. prehis burial	**862**	RCAHMS: no records beyond report.	-		-
35	Fitty Hill	4295 4486	Poss. prehis burial	**866**	RCAHMS: stony mound with modern cairn on top**. See no. 40 below.**	8.5m	Inland summit	W
36	Rapness	5003 3863	Poss. prehis burial	**876**	Ashmore 2003; CZA 1998; RCAHMS: shapeless, mutilated mound, with possible cist structure.	c. 10m	Coast-edge Rocky	S

Table 6.01: The Mounds of Westray

	Name	Grid ref. HY	Category	OSMR	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height	Area map
37	Crowtua	5018 3951	Poss. prehis burial	**877**	RCAHMS: turf-covered mound.	12.5m	Hilltop	S
38	Bu Farm, Rapness	5006 4044	Prehis burials	**884** **884.01**	CZA 1998; RCAHMS; PSAS 126: two cairns with cists, excavated**. See nos 39 and 46 below.**	14m 9m	Coast-edge Rocky	S
39	Bu Farm, Rapness	5013 4049	Prehis burial	**885**	CZA 1998; PSAS 126; RCAHMS**:** turf-covered mound with orthostatic slabs visible. **See nos 38 above and 46 below.**	8m	Coast-edge Rocky	S
40	Fitty Hill	4332 4452	Prehis burial	**893**	RCAHMS: mutilated chambered cairn. **See no 35 above.**	16m	Inland hill-shoulder	W
41	The Bloody Tuaks	42 45	Poss. prehis burial	**903**	NSA; RCAHMS: no records beyond report.	-	Hillside	W
42	Point of Cott	4654 4746	Prehis burials	**906**	DES 1984; RCAHMS: excavated chambered cairn.	c 30m	Coast-edge	E
43	Howa Tuo or Powdykes	4342 4362	Poss. prehis burial	**909**	RCAHMS: poss. chambered cairn. Mound with orthostatic slabs visible.	c 18m	Hilltop	W
44	Unlocated	-	Indeterminate	**912**	-	-	-	-
45	Mae Sand	44 42	Poss. prehis burials	**1180**	CZA 1998; RCAHMS: cists with skeletons ploughed up in 1954.	-	Coast-edge WBS	W
46	Stancro, Bu Farm	5006 4037	Poss. prehis burial	**2838**	CZA 1998: low amorphous mound. **Close to nos 38 and 39 above**.	12m	Coast-edge	S
47	East Surrigarth, Skel Wick	4921 4520	Poss. prehis burial	**2852**	CZA 1998: eroded mound; with upright slabs and visible stonework; poss. chambered cairn.	20m	Coast-edge	E
48	Noup	4166 4892	Indeterminate/ burnt mound	**688**	RCAHMS: turf-covered mound.	9m	Steep hillside	N
49	Loch of Burness	4268 4808	Indeterminate/ burnt mound	**695**	RCAHMS: no records beyond report. **Nos 49-51 all by/ near Loch of Burness**.	-	Inland loch-side	N
50	Hilldavale	4261 4788	Indeterminate/ burnt mound	**696**	RCAHMS: burnt material, ploughed-out mound.	-	Hillside by stream	N
51	Loch of Burness	429 478	Indeterminate	**697**	RCAHMS: unlocated ploughed-out mound. **Possible confusion with nos 49 and 50.**	-	Inland loch-side	N
52	Gill Pier, Pierowall	4502 4922	Poss. burnt mound	**705**	CZA 1998; RCAHMS: eroding mound with burnt stones visible.	13m	Coast-edge Rocky	N
53	Langskaill/Hooan	4363 4301	Indeterminate/ burnt mound	**721**	RCAHMS: roughly circular mound.	11m	Inland, wet level land	W
54	Unlocated	42 48	-	**852**	RCAHMS	-	-	-
55	Unlocated	No refs	-	**864**	RCAHMS	-	-	-
56	Loch of Wasbist	4897 4262	Poss. burnt mound	**874**	CZA 1998; RCAHMS: burnt earth and stones visible in low mound.	17m	Loch-side	S

Descriptive Catalogue 2: Table 6.01, pp. 502-8.

Table 6.01: The Mounds of Westray

	Name	Grid ref. HY	Category	OSMR	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height	Area map
57	Benziecott	4997 3932	Poss. prehis burial	**875**	RCAHMS: possibly two mounds, one with cist reported. Now destroyed	15m	Hilltop	S
58	Knowe of Goltoquoy	5092 4168	Indeterminate/ burnt mound	**878**	RCAHMS: truncated, plough-damaged. Well nearby.	21m	Inland, slope	S
59	Knowe of Cotterchan	5114 4154	Indeterminate/ burnt mound	**879**	RCAHMS: truncated, badly damaged.	-	Inland, slope	S
60	Knowe of Hamar	5039 4127	Indeterminate/ burnt mound	**880**	RCAHMS: truncated, badly damaged.	18m	Inland slope	S
61	Sand Geo	5198 4054	Indeterminate	2846	CZA 1998: turf-covered spread mound, some stone visible.	c. 10m	Inland slope	S
62	Garth, Rapness	4661 4542	Indeterminate/ burnt mound	**907**	RCAHMS: scatter of burnt stones survives, mound now gone.	-	Inland level land	W
63	Sand Geo	5198 4054	Indeterminate	**2846**	CZA 1998: turf-covered mound, some stone visible.	7m	Coast-edge	S
64	Wilkies Knowe	Unlocated	Poss. prehis burial	**904**	RCAHMS: antiquarian report: steatite urn found with mounds.	-	-	-
65	Trenabie	4439 5113	Indeterminate	**678**	CZA 1998; RCAHMS: turf-covered mound.	8m	False crest	N
66	Vaval	4463 5176	Indeterminate	**679**	CZA 1998; RCAHMS: modern marker cairn on top; poss. meith.	12m	Summit	N
67	Peatwell	4509 5185	Indeterminate/ poss. settlement	**682**	RCAHMS: shapeless mound, stones visible.	30m	Inland	N
68	Couter's Hill	421 486	Indeterminate	**689**	RCAHMS: unlocated.	-	-	-
69	Bisgeos	4135 4795	Indeterminate	**2822**	CZA 1998: two grass-covered mounds in field.	15m/ 20m	Coast-edge grass	N
70	Hooan, near Langskaill	4366 4313	Indeterminate/ poss. prehis-V/LN settlement	**900**	RCHAMS: abandoned farm of Hooan on large spread mound thought to be settlement mound.	c. 50m	Inland, 500m WBS 21mOD	W
71	Lengemire	4335 4588	Poss. prehis settlement	**1179**	OSMR: R.G. Lamb report 1987: mound with stones sabs and structural elements.	28m	Inland on slope	W
72	The Ouse	4529 5117	Indeterminate	**2807**	CZA 1998: amorphous turf-covered mound.	28m	Coast-edge WBS	N
73	Kestro, Mid Bea	4479 4315	V/LN-medieval settlement	**727**	CZA1998; RCAHMS: drystone walling, slabs and midden. Moore and Wilson DES 2000: investigated coastal exposure; structural remains and anthropogenic deposits incl. midden recorded. **Links to nos 27 and 77**.	30m	Coast-edge WBS	W
74	Ayre of Burristae	4331 4281	Indeterminate	**868**	CZA 1998; RCAHMS: rectangular mound, slabs and stonework: possible cist. **Link no 11 above**.	3m	Coast-edge rocky	W

Table 6.01: The Mounds of Westray

	Name	Grid ref. HY	Category	OSMR	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height	Area map
75	Ness of Tuquoy	4593 4325	Poss. prehis settlement	**869**	CZA 1998; RCAHMS: coastal exposure with settlement debris, stone walls and midden.	30m	Coast-edge WBS	W
76	Links of Garth	4673 4472	Poss. prehis settlement	**871**	CZA 1998; DES 1990; RCAHMS: eroding 100m long mound on shoreline; structural elements visible in sand.	100m	Coast-edge WBS	E
77	Baikie	4503 4319	Poss. V/LN settlement	**1041**	CZA 1998; RCAHMS: structural elements, drystone walling, midden, highly organic anthropogenic deposits with fish and animal bone, poss. rectilinear structure also visible.	c. 50m	Coast-edge WBS 3mOD	W
78	Bay of Skaill	4550 5140	Indeterminate	**2808**	CZA 1998: low mound in grassland.	30m	Coast-edge WBS	N
79	Aikerness, Bay of Skaill	4625 5166	Indeterminate	**2809**	CZA 1998: low mound in grassland.	30m	Coast-edge WBS	N
80	Biggings	4440 5044	Poss. prehis-V/LN settlement; multi-focal V/LN-medieval settlement **Multi-period**	**2814**	CZA 1998: a. eroding mound; stonework, midden, peat ash, archaeological deposits visible in coast-section. Barrett 2012: test pit 108, midden layer in pit produced twelfth-century pottery. b. Farm of Biggings (now New Haven) is on large mound, 100m from coast (600m W of Breckaskaill). Barrett 2012: test pit 7 in this mound; base of mound not reached, earliest OSL date range AD1435-1535.	a.13m b.40m	Coast-edge WBS 6-7mOD	N
81	Narr Ness	4338 4987	Indeterminate	**2816**	CZA 1998: two grass-covered mounds on coast-edge.	15m	Coast-edge WBS	N
82	Garth	4670 4471	Indeterminate	**2828**	CZA 1998: grassy mound; E of Hodgalee.	30m	Coast-edge WBS	E
83	Taft End farm	4910 4226	Indeterminate/ poss. settlement	**2836**	CZA 1998: large amorphous mound, beyond outbuildings to N of farm.	50m	Coast-edge WBS	S
84	West Sous	5011 3980	Indeterminate	**2839**	CZA 1998: grassy mound.	9m	Coast-edge WBS	S
85	Sheepright Geo	4970 4390	Indeterminate	**2850**	CZA 1998: amorphous grassy mound; poss. natural.	40m	Coast edge rocky	E
86	Skaill, Aikerness	4567 5217	Poss. V/LN settlement/burials	**686**	Ashmore 2003; RCAHMS: much-spread mound behind steading; cists with poss. multiple burials reported; also poss. settlement as midden, burnt stones and structural elements also reported but traces all gone.	-	Inland, 400m WBS 14m OD	N

Table 6.01: The Mounds of Westray

1. **Locations defined as follows:**

   Coast-edge: between Mean High Water Line and c. 100m inland;

   Inland: approximate distance inland from nearest Mean High Water Line: calculated usually only for known/possible settlement mounds.
2. **Geology:** drift geology given where possible.
3. **Italicised entries:** non-mound/non-chapel evidence of relevance.

Reference Bibliography for Table (all included in Main Bibliography)

CZA 1998: Moore, H. and G. Wilson 1998, *Orkney Coastal Zone Assessment 1998*, unpublished report, Edinburgh: EASE Archaeological Consultants.

Maleszka, M. 2003, 'A Viking Age weight from Cleat, Westray, Orkney', *PSAS* 133, pp. 283-291.

Moore, H. and G. Wilson 2000, *DES* 1.

Moore, H. and G. Wilson 2001, *Report on Assessment at Berst Ness and Knowe of Skea*, Unpublished Report, Edinburgh: EASE Archaeological Consultants.

Sharples, N. 1984, 'Excavations at Pierowall Quarry, Westray, Orkney', *PSAS* 114, pp. 75-126.

Table 6.02: Mound location and mound-related building techniques: Westray

	Tuquoy	Langskaill[1]	Quoygrew[2]
General			
500m or less from coast/ on arm of bay	Coast-edge	Bay-arm	Coast-edge
Built into windblown sand	Yes	Yes	No
Constructed on an existing settlement mound or natural hillock/rise	Possibly	Yes	Yes
Overlooking significant Iron Age settlement: brochs/prehistoric funerary monuments	Yes	Yes	
Near or possessing *skáli*-names	Yes	Yes	
Built over and into pre Viking-Late Norse structures and middens and/or preceding Viking-Late Norse structures and middens, resulting in archaeological layers of structures, midden-type material, yards and surfaces,	Yes	Yes	Partly
Extensive, frequent and undisguised modifications and rebuilding, sometimes linked to change of use e.g. from byre to domestic; or elongation/shortening of the main longhouse[3]	Yes	Yes	Yes
Addition of ancillary buildings and annexes to ends and sides of longhouses; often joined by passage, walls, yards	Probably	?	?
Use of stone (flags/beach cobbles), turf and midden in building; wood used for internal features and roof structures	Yes	Yes	Yes
Application of a range of midden deposits			
Accumulation and storage of midden-type material often for future re-use	Yes /"pit"?	Yes	Yes
Stabilising external work/pedestrian surfaces with midden-type material, usually mixed with sand: "sheet midden" (refuse, some redeposited from a midden store, scattered on the ground)	Possibly	?	?
Structured midden: deposited deliberately to build up mounds and stabilise slopes, sometimes held in place by arcs of stone/ rough, low stone walls	Yes	?	Yes
Creating floors using midden-type material: clay-rich/ash-rich material often used on internal floors	Yes	Yes	Yes
Using midden-type material as wall-core and as revetting for single-faced walls	Yes	Yes	Yes
Digging down into stable midden-type material accumulated around existing structures to build walls, and into abandoned structures infilled with midden-type material and/or partially levelled	Yes	Yes	Yes
Walls and internal features			
New walls built against old walls, sometimes incorporating existing courses (also seen in the Iron Age, especially	Yes	Yes	Yes

[1] The Langskaill excavation was so small in area with only one stretch of external wall showing so it difficult to analyse wall construction.
[2] Only the tenth-twelfth century phases are used complete the table.
[3] A typical sequence might be: initial relatively small domestic structure with separate out-houses; addition of a byre-end; addition of yards, passages and pathways and changes to out-buildings creating a connected complex of buildings; extension of the domestic end; decline in use; use as animal pens or midden storage; abandonment.

Table 6.02: Mound location and mound-related building techniques: Westray

building of new walls inside old ones to reduce internal area), often linked to digging down into floors/midden-type material			
Partially demolishing and then re-using remnants of walls	Yes	Yes	Yes
Building directly over and/or incorporating walls, usually when internal surfaces had been raised by both floor accumulations and deliberate rapid infilling of buildings	Yes	?	?
Re-aligning or extending walls, but not attempting to match building techniques or existing alignment; extension walls often have obvious kinks marking new build and use different size/shape of stones and/or courses	Yes	?	?
Shortening buildings with new/modified internal and external walls, and partitioning buildings with the insertion differently built cross- or partition-walls	Yes	Yes	Yes
Frequent modification of internal features often associated with floor accumulation and/or change of use	Yes	Yes	Yes
Frequently found internal features**: s**tone-lined and capped drains; orthostatic bench supports, boxes, and compartments; small and perhaps sequential peripatetic hearths; chock-stones and partitioning using chock-stones and wood/hurdles; repeated re-paving and use of areas of rough paving	Yes	Yes	Yes

Table 7.01: The Mounds of Sanday

	Name: Parish	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height	Area map
1	Cross Parish Church, Cross and Burness	6537 3920	Poss. prehis-V/LN settlement **Multi-period** Poss. chapel	**315 3412**	RCAMS 1946 and RCAHMS 1980; CZA 1999: disused church (late seventeenth-century) with cemetery, allegedly built over earlier chapel. Mounded area on E side cemetery, earthworks to W: settlement or earlier chapel. Midden and structural remains visible in erosion-section of mound. 1999: 'likely site for a high-status Norse settlement.'	40m	Coast-edge WBS 4mOD	C
2	Bay of Stove, Cross and Burness	6121 3531	Prehis settlement (Neolithic)	**136 3458**	RCAMS 1946 and RCAHMS 1980; CZA 1999; Bond 1995; DES 1995, 103; Gibson 2008, 85-6: slight structural traces 100m S of Chapel site: Neol mace-head and flints found. 1992 survey of section of coastal-mound and second settlement mound in field behind: Grooved Ware pottery found. Structures visible in c. 45m erosion section: stone walls and floors; anthropogenic soils and peat-ash. 1995 field-walking: flint tools found esp. over mound in field.	40m +	Coast-edge WBS 5mOD	SW
3	Pool, Cross and Burness	6194 3785	Prehis-V/LN settlement **Multi-period**	**290 2787 3422**	RCAMS 1946 and RCAHMS 1980; CZA 1999 etc. ***Hunter et al. 2007: see discussion in text.***	60m +	Coast-edge Rocky/WBS 10m OD	SW
4	Boloquoy, Cross and Burness	6248 3892	Poss. prehis settlement	**2788 306722**	CZA 1999: poss. early settlement mound on cultivated land behind coast-edge. Deposits in erosion-section: structural remains, flagged floor; midden-type material with bone, shell, peat-ash, pottery and flint; 1m deep. Intermittent exposures of anthropogenic soils extend 50m N.	40m	Coast-edge Rocky 4mOD	W
5	Spur Ness, Cross and Burness	6061 3494	Poss. prehis settlement	**365 3480**	RCAHMS 1980; Hunter and Dockrill 1991, 29: amorphous mound with protruding slabs: evidence of circular stone-faced compartment in S with estimated internal diam. 3m. Remains suggest settlement not burial cairn: linked to adjacent site 5a.	40m	Hillside 28mOD	SW
5a	Spur Ness, Cross and Burness	6067 3488	Poss. prehis settlement/ burial	**366 3481**	RCAHMS 1980; Hunter and Dockrill 1991, 29; CZA 1999: amorphous mound with protruding slabs. Geophysics suggested multi-celled structure with midden-type material; buried soils found in test-pit.	30m	Hillside 20mOD	SW
6	Spur Ness, Cross and Burness	6036 3414	Poss. settlement	**3461**	RCAHMS 1980; Hunter and Dockrill 1991, 23; CZA 1999: many projecting stones. 1991 geophysics suggests occupation-type features. No trace 1999: lost in pier construction? **Lamb 1980 'tell'.**	12m	Coast-edge 4mOD	SW
7	Whistlebare, Cross and Burness	663 450	Poss. post-med settlement	**431 3491**	RCAHMS 1980: settlement platform 250m N of Burness.	20m+	Hilltop 13mOD	NW
8	Woo, Cross and Burness	6679 4533	Poss. prehis. settlement	**258 3492**	RCAHMS 1980; CZA 1999: 100m of midden in erosion-section under low broad mound; walls; limpet shell; pottery; mammal and fish bone.	60m +	Coast-edge 4mOD	NW

Descriptive Catalogue 2: Table 7.01, pp. 511-27.

Table 7.01: The Mounds of Sanday

	Name: Parish	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height	Area map
9	Kettletoft Bay, Lady	6628 3913	Poss. settlement	**2273 306702**	CZA 1999: coastal erosion-section: coursed walling for 2.5m; stone concentrations either side; anthropogenic soils, peat-ash and burnt bone.	20m	Coast-edge WBS 3mOD	C
10	Quoy Ness, Cross and Burness	625 367	Poss. settlement Indeterminate	**146 3416**	RCAMS 1946 and RCAHMS 1980; CZA 1999. 1946: kitchen midden recorded in area of WBS deposits; archaeological remains no longer visible, but may be under sand.	Mounds Linear	Promontory stabilised dunes	SW
11	Quoy Ness, Cross and Burness	6269 3620	Poss. settlement Indeterminate	**101 3457**	RCAMS 1946 and RCAHMS 1980; CZA 1999: stony mound with kitchen midden reported. By 1999: linear rise across neck of promontory covered with stabilised WBS. **Lamb 1980 'tell'.**	Mounds Linear	Promontory stabilised dunes	SW
12	Howar, Cross and Burness	6171 3718	Poss. prehis-V/LN settlement	**359 3428**	Greig 1940, RCAHMS 1980: turf-covered mound (*haugr*) yielding stone and shell on ploughing: nothing remains. Probable location of four steatite sherds found in 'kitchen midden'.	50m	Inland:300m WBS 16mOD	W
13	Westborough, Cross and Burness	6590 4230	Poss. settlement Indeterminate	**313966**	CZA 1999: eroded amorphous grassy: erosion-section reveals several possible structural stones. **See no. 65 for 'tell'/'farm-mound'.**	10m	Coast-edge 3mOD	NW
14	Prattsfauld, Cross and Burness	6572 4407	Poss. settlement Indeterminate	**266 3526**	RCAHMS 1980: turf-covered mounds covering indeterminate structural remains: vertical slabs visible.	c. 15m	Inland: 200m 8mOD	NW
15	Ayre, Cross and Burness	6522 4123	Poss. prehis-V/LN settlement	**251 3535**	RCAHMS 1980; CZA 1999: long erosion section: walling of poss. rectilinear structure; peat-ash; shell and bone; midden and anthropogenic soils. L-shaped earthen bank/enclosure at 64698 41300. **Lamb 1980 'tell'.**	60m	Coast-edge WBS 4mOD	W
16	*Langskaill*, (Northskaill) Cross and Burness	6836 4442	Poss. prehis-probable V/LN settlement **Multi-period**	**386 3503**	RCAMS 1946 and RCAHMS 1980; Davidson 1981 etc.; CZA 1999; Gibson 2008, 91: farm mound of a vanished farm called *Langskaill*. Rapidly eroding mound among dunes with midden-type material in erosion-section up to 150m long. Contains shell, animal bone, peat-ash and charcoal, with lenses of possible byre-waste. Structural remains visible at N end: slabs resting on peat-ash and midden-type material. Sherds of possible Bronze Age pottery, recovered from towards base of section. 2008: thirteenth-century composite bone comb found in section, c. third way up. **Investigated by Davidson et al.: *see discussion in text*. Lamb 1980 'tell'.**	60m survives	Coast-edge WBS 3mOD	NW
17	Northskaill	6814 4447	Possible prehis-V/LN settlement	**385 3537**	RCAHMS 1980: "farm-mound" under the modern farm buildings; **Lamb 1980 'tell'.**	c. 60m	Inland: 200m WBS	NW
17a	Skelbrae, Cross and Burness	6753 4376	Possible prehis-V/LN settlement		Davidson 1981 etc.: farm-mound under modern farm buildings. **Investigated by Davidson et al.: *see discussion in text.***	c.30m	Inland: 150m WBS10mOD	NW

Descriptive Catalogue 2: Table 7.01, pp. 511-27.

Table 7.01: The Mounds of Sanday

	Name: Parish	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height	Area map
18	Moo Geo, Cross and Burness	6333 3748	Poss. settlement	**306715**	CZA 1999: large grassy mound in sloping pasture; possibly over settlement remains. Less than 500m from coast.	50m	Hillside 35mOD	W
19	Ladykirk, Lady	6767 3986	Poss. prehis- V/LN settlement **Multi-period**	**144** **3397**	Marwick 1923; RCAMS 1946 and RCAHMS 1980; CZA 1999; disturbed mounds SE of Lady Chapel, with quarry hollows; structural elements in erosion-section under amorphous coast-edge mound: walls, floor surfaces, mammal and fish bone. 1923: vestiges of ancient buildings in shore-section.	5m +	Coast-edge Rocky/ WBS 3mOD	C
20	Beafield, Lady	6865 4050	Poss. prehis- V/LN settlement **Multi-period**	**329** **3536**	RCAHMS 1980: presumably ON *bær-fell* ('farm on the hill'), so mound present when V/LN farm built. Modern farm buildings on top of prominent, 'most striking' tell in Sanday (Lamb 1980). **Lamb 1980 'tell'.**	60m +	Inland: 700m WBS 15mOD	C
21	How, Lady	7483 4530	Poss. prehis- V/LN settlement **Multi-period**	**295** **3580**	RCAHMS 1980; Dockrill et al. 2007: modern farm on 'distinct tell' ON *haugr* ('mound'); tell there when farm named. Geophysics (Dockrill et al. 2007, 38-9) suggests extensive settlement remains on highest point south of North loch (7493 4533). **Lamb 1980 'tell'. See 'chapel' 25 below.**	c.40m	Inland: 200m WBS 12mOD	NE
21a	Sandquoy Lady	74674532 747 462	Poss. prehis settlement	**293** **3579** **294** **3579**	RCAMS 1946 and RCAHMS 1980; CZA 1999: house of Sandquoy on a modest mound: coastal erosion-section with midden-type material; traces of dry-stone walling between the exposure and: "Earth-house" discovered in1920s between Sandquoy and How, said to have three compartments, three human skulls and midden-type material.	c.30m Unloc	Coast-edge WBS 4mOD Inland c. 10mOD	NE
22	Tafts/ Tofts, Lady	7475 4615	Poss. prehis- V/LN settlement **Multi-period**	**247** **3581**	RCAHMS 1980; CZA 1999; Gibson 2008, 81: modern farm on large mound; prominent **Lamb 1980 'tell'**. Walling and shell midden reported. Archaeological deposits in erosion-section on edge of mound: organic soils, peat-ash and midden-type material.	100m	Coast-edge WBS 7mOD	NE
23 **24**	Park, Lady Park, Lady	7719 4355 7715 4382	Indeterminate Poss. settlement	**281** **3598** **2740**	RCAMS 1946 and RCAHMS 1980; CZA 1999: about 75m behind coast several indeterminate, irregular knolls; no indications of settlement. CZA 1999: archaeological deposits in three erosion-exposures in sand-dunes: concentration of stone, coursed masonry and shell midden.	Various 10m + 5m +	Coast-edge WBS 5mOD	NE
25	Lopness, Lady	7590 4368	Poss. settlement	**285** **3588**	RCAHMS 1980; CZA 1999: farm on a modest mound: to W, in erosion-section, midden-type material, flagged floors, walling and organic soils with shell and bone visible. **Lamb 1980, 17 'tell'.**	40m c.25m	Coast-edge WBS 5mOD	NE
26	Stackald Brae/ Stenchme, Lady	7585 4397	Poss. settlement	**2748** **306676**	CZA 1999: archaeological deposits in erosion-sections: coursed masonry and organic soils with shell and bone	Patchy c.20m	Coast-edge WBS	NE

Table 7.01: The Mounds of Sanday

	Name: Parish	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height	Area map
27	Stenchme, Lady	7570 4410	Poss. settlement	**306677 only**	CZA 1999: erosion exposure with anthropogenic soils, bird, fish and animal bone. Possible farm-mound immediately behind.	15m	Coast-edge WBS	NE
28	Knowe of Skartan, Lady	7162 4383	Poss. settlement	**267** **3616**	NSA; RCAMS 1946; CZA 1999: amorphous mound: anthropogenic soils in erosion-exposure with shell; bird, fish and mammal bone; peat-ash; and poss. structural stone. Flint scrapers reported in locality. Dr Wood (*NSA*) reports a local folk-tale 'The Black Bridal of Scartan'; in which Scartan was the imposing residence of a chief named Otar. Transcribed by Petrie in his MS book held in National Museum Archive: SAS 551, pp. 91-4.	50m	Coast-edge WBS 5mOD	NE
29	Russ Ness, Lady	6999 4035	Poss. settlement	**2761** **306692**	CZA 1999: archaeological deposits in erosion- section: buried soil; structural remains, incl. poss. drain, associated with midden-type material and peat-ash.	40m	Coast-edge WBS 3mOD	C(E)
30	Cleat, Lady	7044 4274	Settlement	**275**	RCAMS 1946 and RCAHMS 1980: modern farm occupies distinct **tell**.	70m+	Inland: 250m WBS 3mOD	C(E)
31 **32**		714 427 7039 4302	Poss. prehis- V/LN burial(s)	**3611** **811** **3614**	1. Long cist reportedly found in a small mound behind the farm buildings. 2. CZA 1999: eroding stone cist seen 1982 in low amorphous mound. In 1999, mound gone but cist seen surrounded by anthropogenic soils, poss. within a kerbed mound. One surviving slab of cist box protruded from the section. To W of the cist, flat slabs extend out for 2m, covering ashy basal deposits of the mound. To E peat-ash lenses extend 4m to large stone blocks, possibly an external kerb.	- c.10m	Inland Coast-edge WBS	
33		6996 4243	Indeterminate	**2802** **306733**	3. CZA 1999: truncated, grassy mound extends beneath road to the shore: no visible exposures.	c.15m	Coast-edge WBS	
34	Newark, Lady	7198 4181	Poss. settlement **Multi-period?** **Lamb 1980 'tell'**	**3612**	RCAMS 1946 and RCAHMS 1980; CZA 1999: large settlement mound: erosion-section shows midden, stone walls and soils with ard marks. CZA 1999: 120m erosion exposure: archaeological deposits with walling and drains; possible rectangular structure with midden: see also below.	100m +	Coast-edge WBS 5mOD	C(E)
35	Newark Farm Cottages	7230 4241	Poss. settlement: fish processing	**313943**	CZA 1999: extensive erosion-section: anthropogenic soils, charcoal, much fish bone.	50m	Coast-edge WBS	
36 **37**	Newark, Lady references for ends of same erosion section	7241 4255 7237 4263	Poss. prehis- V/LN settlement **Multi-period?**	**2351** **306538** **2751** **313944**	OSMR report 1997; Gibson 2008, 82-3: just N of Newark Farm Cottages, 'classic farm-mound', erosion-face c. 100m consisting of 'classic fine earth/sand/tips/midden layers with patches of stonework.' Coursed walling, two poss. V/LN box drains; midden with shell, animal/ fish bone.	100m	Coast-edge WBS Coast-edge WBS 3mOD	C(E)

Table 7.01: The Mounds of Sanday

	Name: Parish	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height	Area map
38	Smear Geo, Newark, Lady	7204 4195	Poss. settlement	**306537**	CZA 1999: S of Newark Farm. Erosion section 25m long: coursed masonry; anthropogenic soil and shell midden.	40m	Coast-edge WBS	C(E)
39	Seater, Lady	7205 4395	Poss. settlement	**268 3613**	RCAHMS 1980; CZA 1999: modern farm buildings on 'prominent' mound. **Lamb 1980, 18 'tell'.**	50m +	Inland:200m 8mOD	NE
40	Elsness, Lady	6715 3874	Poss. settlement	**655 3403**	Marwick 1923; RCAHMS 1980: prominent, large grassy mound: 'it looks very like an old farm-mound, but is entirely grassed over' (Lamb OSMR), with no archaeological indications; possibly previous site of Elsness Farm.	20m +	Promontory 12mOD	C(E)
41	Whitemill Point, Cross and Burness	6697 4633	Poss. settlement	**256 3495**	RCAMS 1946 and RCAHMS 1980; CZA 1999: prominent mound: erosion-section with stone and bone; rectangular enclosure on summit with vertical slabs protruding. Poss. linked to **140**, 50m to NW.	40m	Coast-edge 5m OD	NW
42	Tres Ness, Lady	7032 3880	Poss. settlement	**149**	RCAHMS 1980: farmhouse allegedly built over old settlement.	N/A	Coast-edge WBS	C(E)
43	Ivar's Knowe, Lady	7158 4335	Poss. burnt mound; poss. prehis-V/LN settlement	**332 3606**	NSA; RCAMS 1946 and RCAHMS 1980: included in Petrie 1873 broch list; Dr Wood described as an unopened (burial) tumulus; midden seen later and artefacts collected incl. bone comb. 1970: burnt stone sand 'black earth' visible. In township of Selli [poss. skeli/*skáli*] ~bister.	26m	Inland: 400m WBS 16mOD	NE
44	Stove, Cross and Burness	6121 3531	Prehis settlement (Neol)	**136 3458**	RCAMS 1946 and RCAHMS 1980; DES 1995, 103; Bond 1995; Gibson 2008, 86-7: 40m erosion-section: peat-ash and walling; and tented flagstones of cairn. Neolithic mace-head found1934. Site extends back into cultivated fields where test-pits found worked flint. 1992: Bradford/ Glasgow Universities survey: one site revealed in section; second larger site behind in substantial mound: trial trench produced Grooved Ware. Over 1500 artefacts recovered in field-walking: flint scrapers, arrowheads and blades; cores, stone tools, burnt bone, pumice, worked quartz and polished stone axe fragment. Finds clustered in SE corner of field over mound, and at edge of field abutting erosion-section.	20m 60m +	Coast-edge WBS 5mOD	SW
45	Toft's Ness, Lady	760 470 centred	Prehis settlement (Neolithic to Early Bronze age; Late Bronze Age to Early Iron age) Cists	**399 3572 3574 3576**	NSA 1842; RCAMS 1946 and RCAHMS 1980; CZA 1999; Dockrill 2007: ***see discussion in text:*** **Mound 11.** Extensive complex of earthen banks, mounds and cairns on E side and tip of Ness. Over 50 mounds: several larger mounds and clusters of smaller mounds in close proximity, together forming chains or enclosures. Excavations in 1980s revealed a prehistoric structural complex, rich midden deposits and buried cultivation soils. Two mounds on coast-edge with protruding stones.	70m: mound 11; others: 6-12m	Flat ness/ coast-edge WBS 5mOD	NE

Table 7.01: The Mounds of Sanday

	Name: Parish	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only given for those sites discussed in detail in text); notes	Diam. approx.	Location[1] Geology[2] Height	Area map
46	Broch of Wasso, Lady	7092 3794	Broch/poss. prehis settlement	**150 3564**	NSA 1845; RCAMS 1946 and RCAHMS 1980; Hedges 1987; CZA 1999; MacKie 2002: grassy mound and platform. Probable broch excavated by James Farrer 1868; surviving sketch plan; exposed stone on mound.	80m	Coast-edge Pasture 7mOD	C
47	Buryan, Lady	7724 4340	Broch	**279 3593**	RCAMS 1946 and RCAHMS 1980; Hedges 1987; CZA 1999; MacKie 2002: fragmentary remains of a broch surmounted by a sea-mark cairn. In 1979 30° of arc remained. Remains of structural stone and substantial anthropogenic deposits still visible in erosion-exposure 80m long.	c. 100m	Coast-edge Pasture 4mOD	NE
48	Newark, Lady	7168 4256	Broch	**348 3605**	NSA 1842; RCAMS 1946 and RCAHMS 1980; MacKie 2002: no trace by 1980 but 'Chapel of Arstas' site marked on OS 6". NSA: records ruins of circular building; double wall; interior infilled with ashy bone-filled midden. Excellent views to NE, S and W.	No trace	Inland: 600m; low summit 25mOD	NE
49	Croos of Nebister, Cross and Burness	6316 3701	Prob. broch/ prehis settlement	**098 3425**	RCAMS 1946 and RCAHMS 1980; CZA 1999; MacKie 2002: face of thick wall exposed, up to seven courses, concave: most now washed away. Midden-type material, wall-fragments visible in 2.5m deep deposit in E and S facing exposures c. 55m long. Mound on cliff-top.	25m	Coast-edge: cliff; 11mOD	W
50	Backaskail, Cross and Burness	6417 3919	Prob. broch/ prehis settlement	**100 3414**	Curister 1923; RCAMS 1946 and RCAHMS 1980; CZA 1999; MacKie 2002: disturbed area of ground covering structures, behind erosion-section with fragmentary stone structures, walling, floors, and midden-type material with peat-ash c. 20m long; anthropogenic soils extend further W.	20m +	Coast-edge WBS 11mOD	C W
51	How, Cross and Burness	6606 3927	Poss. broch/ prehis settlement	**103 3413**	Curister 1923; RCAMS 1946 and RCAHMS 1980; MacKie 2002: drystone building found beneath two knolls behind farm-house of How in 1887; range of Iron Age finds including complete silver spiral finger-ring. 'Characteristic Sanday tell': **Lamb 1980, 17.**	Built-over	Inland: 200m WBS 18mOD	W
51a		6569 3913	Indeterminate	**31955**	CZA 199: SW of above. Conical mound in marshy field: greener grass testifies to more organic soils.	20m	WBS 12mOD	
52	Colli Ness, Lady	6850 4212	Poss. broch/ prehis settlement Chapel	**109 3513**	NSA 1842; RCAMS 1946 and RCAHMS 1980; CZA 1999; MacKie 2002: prominent natural rise on neck of promontory enlarged by an artificial mound; recorded as a poss. broch overlain by a chapel and burial ground. Archaeological remains disturbed by military activity, before 1928: rectangular enclosure on summit with traces of military buildings.	30m +	Coast-edge WBS 7mOD	C
53	Peterkirk, Lady	7136 4363	Poss. broch/ poss. prehis settlement	**276 3626**	Marwick 1923; RCAMS 1946 and RCAHMS 1980; CZA 1999; MacKie 2002: erosion-sections with fragmentary structures and organic soils with	70m	Coast-edge; Pasture	NE

Table 7.01: The Mounds of Sanday

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			Poss. chapel		animal bone and shell. Longer exposures of midden and walling seen in the past: **see no. 49 above.**		11mOD	
54	Marygarth Manse, Cross and Burness	6539 4118	Poss. broch/ poss. prehis. settlement	**328 3514**	RCAHMS 1980; MacKie 2002: during rebuilding of manse ruins of circular walls and midden-type material found; rotary quern nearby.	No trace	Inland:150m 5mOD	C W
55	Tofts Ness, Lady	760 470	Alleged broch; defn. multi-period mound(s); poss. prehis settlement	**399 3572 etc.**	Clouston 1932; RCAMS 1946 and RCAHMS 1980; DES 1985-1988 and DES 1999; Bond 2002; Mackie 2002; Dockrill 2007: six turf-covered mounds: A = alleged broch. ***See discussion of Tofts Ness excavations in text***: complex mound landscape with cairns and field walls: Neolithic-IA c.f. Links of Noltland, Westray: **see no. 45.**	30m etc.	Promontory WBS 5mOD	NE
56	Runna Clett, Cross and Burness	6659 4540	Alleged broch; poss. prehis settlement	**142 3490**	Petrie 1873; RCAMS 1946 and RCAHMS 1980; CZA 1999; MacKie 2002: listed as broch by Petrie, very tenuous; stretches of walling in erosion-section; midden-type material, shell midden.	30m	Coast-edge WBS 5mOD	NW
57	Broch of Lambaness, Cross and Burness	61 37?	Alleged broch/ poss. prehis settlement	**338 3423**	PSAS 1878; RCAHMS 1980; MacKie 2002: no information except for a collection of finds: bone comb; bronze pin; spindle whorls; bone artefacts and rotary quern stones.	Unloc.	Unloc.	W
57a	Burial	61 37?	Poss. V/LN burial	**3424 337**	Viking finds suggestive of tenth-century male burial recorded during digging in the ruins of ancient structure at 'Lamaness': part of a double-edged sword, an iron spear-head and poss. iron axe-head.	N/A		
57b	Burial	61 37?	Poss. V/LN burial	**3426 336**	Poss. ninth-tenth century female burial grave near poss. broch: two tortoise shell brooches, jet armlet, amber bead and fragment of penannular brooch.	N/A		
57c	Burial	611 371	Poss. V/LN burial	**3421 335**	PSAS 1915; Grieg 1940; RCAMS 1946. Braeswick: poss. ninth-tenth century female burial in subterranean passage: tortoise shell brooch, 2 amber beads, 1 blue glass bead and stone vessels	N/A		
58	Chapel of Lambaness	6138 3797	Chapel; poss. prehis settlement **Link to no. 126**	**3417**	RCAHMS 1980; CZA 1999; Hunter 2007: mound with stony sub-rectangular bank 10m by 7m; two enclosures on N side. Seen in 1999 as two co-joined amorphous mounds. Hunter: Iron Age non-broch settlement.	15m	Coast-edge Pasture 5mOD	
59	Braehowar, Cross and Burness	6200 3738	Alleged broch/ poss. settlement **Link to no. 12**	**339 3437**	RCAHMS 1980; MacKie 2002; Hunter 2007: Petrie Notebook 9, p. 36: c. 1867 during road building dug through 'remains of a village' near old harbour of Pool.	No trace	Inland: 400m?	W
60	Houll, Lady	6933 3990	Alleged broch/ poss. prehis settlement	**344 3406**	RCAMS 1946 and RCAHMS 1980: **on the farm of Skaill.** Collection of Iron Age objects found deep in site of ancient structure: bone combs; bone objects; pottery fround. Site no longer visible.	No trace	Inland: 600m WBS 15mOD	C

Table 7.01: The Mounds of Sanday

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61	Els Ness, Lady	672 390	Alleged broch	**314 3411**	Petrie 1873; RCAMS 1946 and RCAHMS 1980; CZA 1999; MacKie 2002: Petrie broch: no trace.	No trace	WBS 5mOD	C
62	Icegarth Broch, Cross and Burness	6706 4156	Alleged broch	**323 3507**	Petrie 1873; RCAMS 1946 and RCAHMS 1980; MacKie 200m: on Petrie's list; site originally Icegarth Castle; ploughed-down eminence known locally as "The Castle".	No trace	Inland: 300m 11mOD	C
63	Chapel Head, Hobbister Cross and Burness	6536 4136	Poss. chapel/ burials; poss. settlement	**250 3504**	RCAHMS 1980: CZA 1999: poss. chapel/settlement site E of farm of Corsequoy: amorphous grassy mound on shore: in related erosion-section stone slabs, anthropogenic deposits, peat-ash and animal bone.	15m	Coast-edge 3mOD	C
64	Cross, Cross and Burness	6602 3885	Poss. broch/poss. settlement	**306703**	CZA 1999: concentration of stone in erosion-section: over buried soil.	10m	Coast-edge 5mOD	C
65	Westbrough, Cross and Burness	6633 4235	Poss. broch/ poss. prehis-V/LN settlement	**321 3505**	RCAMS 1946 and RCAHMS 1980; Davidson 1981; MacKie 2002: immediately N of the main farm buildings, no structural remains visible, poss. find-spot of V/LN axe. Place-name may indicate existence of a broch. Organic soil and shell midden recorded in erosion-exposures. Finds from 'Hermiesgarth' could come from this site: bone die, a stone 'pestle' and mattock of stone. **Investigated by Davidson et al.:** ***see discussion in text.*** **Lamb 1980, 19: 'very large tell'.**	80m	Inland: 250m WBS 8mOD	C NW
66	Brace Garth, Lady	7490 4653	Poss. broch/ prehis settlement; Indeterminate	**245 3577**	RCAMS 1946 and RCAHMS 1980; CZA 1999; MacKie 2002; Dockrill 2007: un-eroded large grassy mound on coast-edge; geophysics (2007, 138) suggested possibly natural; or burial chamber with later settlement activity on lower slopes.	85m	Coast-edge WBS 5mOD	NE
67	The Knowes, Cross and Burness	6342 3880	Burnt mound(s); burial(s)	**361 3436**	RCAMS 1946 and RCAHMS 1980; CZA 1999: four small mounds in much quarried area. A and B probably burial cairns; C: burnt mound; D: indeterminate, 11m diam.	A/B 6-7m C 20m	Hillside 35mOD	W
68	Stove, Cross and Burness	6099 3582	Burnt mound Indeterminate	**3456**	RCAMS 1946 and RCAHMS 1980: grass-covered mound in boggy field.	10m	Hillside 5m OD	SW
69	Hangie, Spur Ness Cross and Burness	6098 3582	Burnt mound	**099**	RCAMS 1946 and RCAHMS 1980; CZA 1999: NNE of Stove, amorphous turf-covered mound in boggy area. Poss. same as no. 68.	c.10m	Valley bottom 4mOD	SW
70	Spur Ness, Cross and Burness	6060 3479	Burnt mound	**367 3479**	RCAHMS 1980; Hunter and Dockrill 1991, 28; CZA 1999: grass-covered roughly crescent-shaped mound; a few burnt stones visible. In boggy bottom of shallow valley between two converging streams. 1991: geophysical survey confirms site as probable burnt mound with structure.	23m	Valley bottom 20mOD	SW

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71	Quivals Loch, Cross and Burness	6703 4186	Poss. burnt mound	**252 3534**	RCAHMS 1980; CZA 1999: oval turf-covered mound on edge of loch in boggy ground. No stone showing.	10m	Loch-side 4mOD	C
72	Colligarth, Lady	6893 4166	Burnt mound (s)	**262 3522**	NSA; RCAMS 1946 and RCAHMS 1980; CZA 1999. 1999: three burnt mounds previously recorded, two revisited. One eroding on coast-edge; burnt stone visible in several exposures. A second turf-covered mound slightly further inland. Third recorded in 1980 as revealing burnt stone (not Knowes of Mrytis).	All c. 10m	Coast-edge Pasture 3mOD	C
72a		6917 4154	Indeterminate	**263 3533**	RCAMS 1946 and RCAHMS 1980: barely visible rise: recorded as burnt mound.	N/A	Pasture 6mOD	C
73	Newbiggings, Cross and Burness	6599 4179	Prob. burnt mound	**265 3553**	RCAMS 1946 and RCAHMS 1980: burnt mound mutilated by quarrying; said to contain upright slabs, on loch-margin.	25m spread	Loch-side 4mOD	C
74	Butter Knowe, Lady	7094(6?) 4315	Poss. burnt mound	**270 3622**	RCAMS 1946 and RCAHMS 1980; CZA 1999: grassy mound, said to have burnt stones.	14m	Drained pasture 2mOD	C(E)
75	Cleat, Lady	7055 4263	Prob. burnt mound	**272 3623**	RCAMS 1946 and RCAHMS 1980: turf-covered mound in boggy area with burnt stones.	c.10m	Boggy field 3mOD	C(E)
76	Cleat, Lady	7032 4253/ 7034 4258?	Prob. burnt mound	**273 4624**	RCAMS 1946 and RCAHMS 1980: turf-covered mound in boggy area with burnt stones.	c.10m	Arable 3mOD	C(E)
77	Park, Lady	7773 4371	Indeterminate Poss. burnt mound	**278 3582**	RCAMS 1946 and RCAHMS 1980; CZA 1999: mound of burnt stone recorded. Damaged by ploughing; still there 1970. No longer visible.	c.20m spread	Field 4mOD	NE
78	Park, Lady	7715 4382	Indeterminate Poss. settlement	**2740 306654**	CZA 1999: stone, coursed masonry and shell in three exposures in sand-mounds. **See no. 24.**	30m +	Coast-edge WBS 5mOD	NE
79	Northwall, Lady	75 44	Indeterminate	**0297 3600**	RCAMS 1946 and RCAHMS 1980: no trace now: stones visible between lochs in 1946. Location suggests poss. burnt mound.	Unloc	Between lochs	NE
80	Leavisgarth, Lady	7001 4145 7009 4172	Prob. burnt mounds	**303 304**	RCAHMS 1980: first mound an amorphous rise; the other ploughed out: stones visible.	c.10m	Drained marsh	C(E)
81	Meur, Lady	7465 4571	Burnt mound	**282775 only**	DES 2005 98; Toolis 2007; Gibson 2008, 88: rescue excavation 2005: structures incl. tank, compartment, water-cistern with drains, water-inlets and burnt, cracked stones. Clay for waterproofing and paved floor: RC14 875-945bc uncalibrated.	10m +	Coast-edge 1mOD	NE

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82	Scarrigarth, Cross and Burness	6290 3864	Prob. burnt mound	**358 3432**	RCAHMS 1980: farmer reports 'black earth' and burnt stones in ploughed-out rise, near stream in boggy ground.	Spread	Boggy field 15mOD	W
83	Ortie, Cross and Burness	6853 4505	Poss. burnt mound	**378 3489**	RCAMS 1946 and RCAHMS 1980; CZA 1999: damaged grass-covered, sub-oval mound: 'dark earth' seen previously.	25m	Coast-edge WBS 3mOD	NW
84	Northskaill, Cross and Burness	6814 4454	Prob. burnt mound	**383 3501**	RCAMS 1946 and RCAHMS 1980: near drained area and farm buildings; prob. burnt mound.	10m	Inland 4mOD	NW
85	Annabrake, Cross and Burness	6639 4425	Poss. burnt mound	**393 3527**	RCAHMS 1980: 'black earth' and stones show in ploughing: amorphous rise.	Spread	Inland 9mOD	NW
86	Pincod, Cross and Burness	6631 4397	Poss. burnt mound	**394 3528**	RCAHMS 1980: burnt stones show: amorphous rise truncated by ploughing.	Spread	Inland 10mOD	NW
87	Boloquoy, Cross and Burness	6260 3896	Poss. burial cairn	**286 3447**	RCAMS 1946 and RCAHMS 1980; CZA 1999: remains of a mutilated cairn; stony rim and some upright slabs remaining. SW of farm.	13m	Marshy 5mOD	W
88	Boloquoy, Cross and Burness	6318 3879	Chambered cairn(s)	**333 3419**	RCAMS 1946 and RCAHMS 1980: two tombs alleged SE of farmhouse. Low rise remains; apparently stones ploughed up.	Spread	Field 10mOD	W
89	Stove, Cross and Burness	608 355	Chambered cairn	**145 3415**	RCAMS 1946 and RCAHMS 1980; CZA 1999: no trace; stone lamps now lost found in reported chambered tomb. **See no. 111**.	Unloc	Unloc	SW
90	Styes/Sties of Brough, Cross and Burness	654 421	Prehis. burial cairns; poss.V/LN burials	**324 3509 3523**	Grieg 1940; RCAMS 1946 and RCAHMS 1980; Hunter and Dockrill 1982: four mounds: 1. 6541 4213: damaged with protruding slabs; 2. 6546 4216: possible source of V/LN sword; 3. 6447 4210: irregular, very disturbed; 4. 6540 4216: denuded cairn. Time Team excavation revealed mounds as prehis: one possibly with later V/LN burial setting. http://www.channel4.com/programmes/time-team/episode-guide/series-5/	15-30m 14m 10m	Promontory WBS c. 8mOD	NW
91	Braeswick, Cross and Burness	611 371	V/LN burial **See no. 57 above**	**335 3421**	PSAS 1915; Grieg 1940; RCAMS 1946 and RCAHMS 1980: tortoise brooch, two amber and one blue glass bead. Poss. female grave.	Unloc	Unloc Near Pool	W
92	Lambaness, Cross and Burness	61 37	V/LN burials **See no. 57 above**	**336 337 3424**	Grieg 1940; RCAMS 1946 and RCAHMS 1980: digging in 'ancient structure' at Lambaness found a sword, spear-head and axe-head: poss. tenth-century male burial. Also penannular brooch, jet armlet and amber bead suggest ninth-tenth century woman's burial.	Unloc	Unloc Near Pool	W
93	Scar, Cross and Burness	6780 4584	V/LN burials	**259 3494**	RCAMS 1946 and RCAHMS 1980; CZA 1999; Owen and Dalland 1999 etc.: ***see discussion of Scar excavation in text.*** Viking boat burial of a man, woman and child, excavated 1991.	20m	Coast edge WBS 3mOD	NW
94	Quoybanks, Cross and Burness	6780 4584	Indeterminate V/LN burial	**2799 3494**	CZA 1999: ***see discussion of Scar excavation in text***, mound poss. linked to burial. Amorphous grassy mound with vertical stones visible on summit.	20m	Coast-edge WBS 1mOD	NW

Descriptive Catalogue 2: Table 7.01, pp. 511-27.

Table 7.01: The Mounds of Sanday

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95	Whale Head, Lady	7626 4383	Poss. chambered cairn	**282 3604**	RCAMS 1946 and RCAHMS 1980: prominent large mound; large stones reported: no indications now.	c 20m	Inland 9mOD	NE
96	Lopness, Lady	7584 4396	Prehis burial	**2597 306622**	Robertson and Downes 2000: cist measuring 1.3m N-S by 0.9m E-W excavated before lost to erosion: contained a crouched inhumation with lithics and pottery.	-	Coast-edge WBS 10mOD	NE
97	Spur Ness. Cross and Burness	6055 3449	Prehis burials	**368 3482**	RCAHMS 1980; Hunter and Dockrill 1991; Sharman 2007: mounds excavated 1991: two cists with cremated human bones; Early-Mid Bronze Age.	6-7m	Summit of ridge 30mOD	SW
98	Whupland Hill Cross and Burness	6049 3612	Poss. burial cairn	**712 3450**	RCAHMS 1980: circular grassy mound; vertical slabs protrude.	6m	Hillside 45mOD	SW
99	North Mire, Cross and Burness	6205 3799	Poss. burial cairn	**254 3433**	RCAMS 1946 and RCAHMS 1980; CZA 1999: amorphous mound with erosion-section: stones and vertical slab visible. NE of Pool excavation.	c.12m	Coast-edge 8mOD	W SW
100	Hack's Ness, Cross and Burness	6152 3403	Poss. burial cairn	**137 3478**	RCAHMS 1980; CZA 1999: modern cairn on round grassy mound, also with kerb of vertical stones; stones in erosion-section.	35m	Coast-edge 5mOD	SW
101	Thorsness, Cross and Burness	6723 4304	Poss. burial cairn	**380 3511**	1862-4 *PSAS* 5, p.16; RCAHMS 1980; CZA 1999: spread grassy mound in field: possible find site of clay urn (1825).	18m	Coast-edge 5mOD	NW
102	Whale Point, Cross and Burness	6511 4542	Indeterminate; poss. burial cairn	**2797 306729**	CZA 1999: small rise with a ring of earth-fast boulders.	2m	Coast-edge 3mOD	NW
103	Els Ness, Lady	673 375 centred on	Poss. burial cairns	**309 3410**	*NSA* 1845; RCAMS 1946 and RCAHMS 1980; DES 1998, 71; CZA 1999: at least 26 cairns – grassy rises – recorded scattered across field at S tip of Els Ness. Not all survive. *NSA* records cists in some mounds; 'cramp' and stone objects in several. One eroding on coast in 1999 revealed stones of poss. cist. Associated with barrows around Augmond Howe chambered cairn: **see no. 107.**	c 10m av.	Promontory Pasture 10-13mOD	C(E)
104	Els Ness, Lady	6705 3765 6700 3781 6696 3785 6697 3796 6706 3849	Poss. burial cairns	**2767** **2768** **2769** **2770** **2771**	Five mounds, all CZA 1999: 1. stones protruding from erosion-section. 2. Stones protruding from grassy mound. 3. Stony mound. 4. Possible naust. 5. Grassy rise. **Also Canmore: 306697, 306698, 306700**	10m 9m 8m 7m	Coast-edge Coast-edge Coast-edge Coast-edge Coast-edge	C(E)
105	Quoyness, Lady (*not* Augmond Howe)	6766 3779	Chambered cairn	**308 3395**	PSAS, 7 1866-8; PSAS, 86 1951-2; RCAMS 1946 and RCAHMS 1980; CZA 1999: prominent Maes Howe type chambered cairn on an artificial mound. Investigated by Farrer and Petrie in 1860s, and Childe in the 1950s. A 9m entrance passage leads to central chamber with six side cells:	21m	Coast-edge 5mOD	C(E)

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					Neolithic pottery, animal bone, human remains and stone tools found.			
106	Augmond Howe, Lady	6765 3754	Chambered cairn	**3407**	*NSA* 1845; Marwick 1923; RCAMS 1946 and RCAHMS 1980; CZA 1999: eroding: much diminished. Stony core material exposed.	8m	Coast-edge 5mOD	C(E)
107	Augmond Howe (west), Lady	676 375 Centred on	Poss. burial cairns	**309** **34091**	*NSA* 1845; RCAMS 1946 and RCAHMS 1980; DES 1998, 71; CZA 1999: around 18 earthen barrows with linking bank around Augmond Howe cairn (group above on W side of Ness); two cists with human bone excavated in 1980: **see no.103.**	5-10m	Coast-edge 3-5mOD	C(E)
108	Tres Ness, Lady	7110 3752	Chambered cairn	**330** **3566**	RCAMS 1946 and RCAHMS 1980; DES 1983, 20; Davidson and Henshall 1989; CZA 1999; Gibson 2008, 89-90: eroding: limited rescue investigation 1983. Three phases: stalled cairn, then circular structure and round mound. Probably Maes Howe type cairn.	14m	Coast-edge 6mOD	C(E)
109	Rethie Taing, Cross and Burness	6511 4424	Chambered cairn	**140** **3532**	RCAHMS 1980; CZA 1999: prominent mound: probably Maes Howe type cairn. Very stony: walling seen and end of passage at right angles to shore.	26m	Coast-edge 5mOD	NW
110	Stove, Cross and Burness	606 350?	Poss. burial cairn	**363** **3454**	RCAMS 1946 and RCAHMS 1980: no trace now; in 1928 (visit date for RCAMS 1946) damaged cairn visible.	Unloc	Unloc	SW
111	Stove, Cross and Burness	608 355	Chambered cairn	**145** **3415**	RCAMS 1946 and RCAHMS 1980: chambered cairn reported near farmhouse 1911-12. Artefacts found, but site destroyed. No trace.	Unloc	Unloc	SW
112	Barber's Tower, Cross and Burness	6346 3896	Unloc	**3434**	RCAHMS 1980: small knoll reputed to be site of a broch. No trace now	Built on	Unloc	W
113	Warsetter, Cross and Burness	628 377	Unloc	**341** **3439**	RCAHMS 1980: stone cist supposedly found under small mound: **see no. 129**	Unloc	Unloc	W
114	Mires, Cross and Burness	6350 3942	Indeterminate	**356** **3440**	RCAHMS 1980: stony mound under modern cairn. W of Backaskaill.	6m	Hillside 40mOD	W
115	Hack's Ness, Cross and Burness	6149 3426	Indeterminate	**139** **3460**	RCAHMS 1980; CZA 1999: amorphous mound; one erect stone.	8m	Coast-edge 6mOD	SW
116	Hack's Ness, Cross and Burness	6140 3464	Indeterminate	**306718**	CZA 1999: sub-circular mound: no erosion-section.	6m	Coast-edge 5mOD	SW
117	The Crook, Cross and Burness	6800 4595	Indeterminate	**261** **3493**	RCAHMS 1980; CZA 1999: large grassy mound.	40m	Coast-edge 3mOD	NW
118	Helliehow, Cross and Burness	69 45	Indeterminate	**654** **3488**	Marwick 1923, 28: Marwick mentions legend of Hogboon, mound dweller *haug-buandi* at mound 'Cot Brae'/Hellihow, *helgi-haugr*. No trace.	Unloc	Unloc	NW
119	Rue, Cross and Burness	6610 4527	Indeterminate	**2798** **306731**	CZA 1999: reduced grassy mound; no stones visible.	15m	Coast-edge 4mOD	NW

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120	Thorsness, Cross and Burness	669 431	Indeterminate	**381 3500**	1862-4 *PSAS* 5, p.16: no other information than record in *PSAS* to slag from mound at Thorsness.	Unloc	Unloc	NW
121	Braes of Gorn, Cross and Burness	6677 4450	Indeterminate	**374 3552**	RCAMS 1946 and RCAHMS 1980: considerable but extremely damaged mound: close to treb dyke, large enough to be broch/settlement. Poss. link to unlocated settlement/burnt mound excavated by Dr Wood in 1824	Spread	Inland 12mOD	C(E)
122	Broughtown, Cross and Burness	6547 4135	Indeterminate	**2792** 306726	CZA 1999: gassy mound with protruding stones: a small earthwork, possibly an enclosure bank runs off the mound towards the coast.	15m	Coast-edge 5mOD	C
123	Howland, Cross and Burness	6594 4352	Indeterminate	**2796** 306728	CZA 1999: low amorphous mound: short stony erosion exposure; flat slabs exposed in section to W.	17m	Coast-edge 4mOD	NW
124	Russ Ness, Cross and Burness	6797 4174	Indeterminate	**2801** 306732	CZA 1999: grassy mound; no indications of archaeology.	25m	Coast-edge 2mOD	C
125	Knowe, Cross and Burness	6785 4419	Indeterminate	**384 3502**	RCAMS 1946 and RCAHMS 1980: indeterminate grassy mound.	Spread	Inland Boggy area 5m OD	NW
126	Lamba Ness Cross and Burness	6140 3801	Indeterminate	**2786**	CZA 1999: concentration of stone in erosion-section 6m long; slight rise in immediate hinterland.	10m	Coast-edge 10mOD	W
127	Boloquoy, Cross and Burness	6256 3927	Indeterminate	**288 3435**	RCAHMS 1980; CZA 1999: substantial, sub-circular grassy mound; several earth-fast stones protrude through turf.	35m	Coast-edge 5mOD	W
128	Scofferland, Lady	7665 4360	Indeterminate	**2746** 306669	CZA 1999: drystone walling in erosion-section of grassy mound.	30m	Coast-edge 3mOD	NE
129	Housie, Lady	6285 3775	Indeterminate	**0357**	RCAMS 1946 and RCAHMS 1980: no trace	Unloc	Inland	W
130	Chapel of Start, Start Island, Lady	7840 4368	Indeterminate; poss. chapel	**3590**	Aberdeen Map 1760; Marwick 1923; RCAMS 1946 and RCAHMS 1980; CZA 1999: grassy rise by small loch: possible burial mound, but no archaeological indications; poss. site of chapel marked on Aberdeen map.	15m	Coast-edge WBS 5mOD	NE
131	Otterswick, Lady	69 42	Indeterminate; poss. burials	**382 3538**	*NSA* 1845; RCAHMS 1980: *NSA* describes many small circular mounds on moor stretching S of Cleat and Colligarth along bay of 'Otarswick or Odinswick': now no traces.	Unloc	Unloc	C(E)
132	Canker, Lady	6979 4131	Indeterminate	**2758** 306682	CZA 1999: two mounds and curvilinear earthwork; no indications of archaeology.	5m 8m	Coast-edge Boggy area	C
133	Neigarth, Lady	6966 4090	Indeterminate	**2759** 306690	CZA 1999: grassy mound; no indications of archaeology.	10m	Coast-edge 5mOD	C
134	Tres Ness, Kirk Banks, Lady	7023 3870	Indeterminate	**3568**	RCAHMS 1980: turf-covered mound with protruding slabs: **see no. 139.**	20m	Coast-edge 5mOD	C

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135	Tres Ness, Knap of Girndish, Lady	7069 3802	Indeterminate	**248 3561**	RCAMS 1946 and RCAHMS 1980; CZA 1999: group of tumuli: only one survives by 1980. This larger mound by coast edge: other earthworks.	20m	Coast-edge 5mOD	C
136	Tres Ness, Lady	7119 3757	Indeterminate	**331 3570**	RCAHMS 1980; CZA 1999: mound with visible stone.	6.5m	Coast-edge 5mOD	C
137	Tres Ness, Lady	7048 3857	Indeterminate	**306678**	CZA 1999: damaged mound with some visible stone	25m	Coast-edge 7mOD	C
138	Tres Ness, Tingly Loup, Lady	7051 3839	Indeterminate Midden	**2755 306679**	CZA 1999: grassy mound; no indications of archaeology, but midden-type material in erosion-section nearby: OSMR/Canmore: **2756/ 306680**	8m	Coast-edge 5mOD	C
139	Tres Ness, Lady	7023 3870	Indeterminate	**313947**	CZA 1999: grassy mound; no indications: **in same area as no. 134.**	8m	Coast-edge	C
140	Whitemill Point, Cross and Burness	6990 4637	Indeterminate; nausts	**2800 306731**	CZA 1999: amorphous mound; several vertical slabs protrude. Boat-shaped depression at W end; second poss. naust on coast edge.	25m	Coast-edge 1mOD	NW
141	Crue-Marron-Deme, Lady	7668 4404	Indeterminate	**445 3589**	Marwick 1923; RCAHMS 1980; CZA 1999: prominent mound difficult to differentiate from surrounding sand dunes. Reputed site of a leper's house.	_	Coast-edge 5mOD	NE
142	Maesry, Lady	7831 4351	Chambered cairn	**291**	RCAMS 1946 and RCAHMS 1980; Davidson and Henshall 1989; CZA 1999: cairn on platform; opened in early twentieth-century.	20m	Coast-edge 5m OD	NE
143	Hermisgarth, Lady	6652 4282 centred	Prehis. burials	**2371**	Downes and Morris 1997: late Iron Age/early Pictish cist-burials and stone pyre settings. Excavation and radiocarbon dating. Probably extensive site: seen in erosion-sections before excavation	N/A	Coast-edge WBS 5m OD	NW

Table 7.01: The Mounds of Sanday

	Name: Parish	Grid ref. HY	Category	OSMR	Chapels of Sanday Sources; notes	Location
1	Carse of Henzie Hunt, Conningdale, Lady	691 396	Poss. chapel	**313** **311** **3400**	*NSA* 1845: Dr Wood locates it at Overbister: poss. the small hillock at Carse. RCAMS 1946: locates it near Conninghole, with no explanation. Marwick 1923: suggests is same as Karny Kirk: **chapel nos 1, 2 and 3 poss. the same.**	Unloc.
2	St Magdalen's Chapel, Overbister, Lady	69 39	Poss. chapel	**315** **3401**	*NSA* 1845: locates it 200yards N of chapel no.1: 'It did not exceed 12' in length and 8' to 10' in breadth and the walls were bonded with clay' (Information from Dr. Wood).	Unloc.
3	Karny Kirk, Overbister, Lady	692 407	Poss. chapel	**311** **3516**	Marwick 1923, 26: field called Karny Kirk (St Catherine) at Everbist. The site is on the farm of Skaill immediately behind Bressigarth. Not located in author survey.	Pasture 300m inland
4	Colliness, Lady	6850 4212	Poss. chapel	**109** **3513**	A natural rise at neck of promontory with an artificial mound; recorded as a poss. broch overlain by a chapel and burial ground: **for details see mound no. 52 above.**	Coast-edge
5	Bight of Lotheran, Buryan, Lady	776 436	Poss. chapel	**3601**	Not located; chapel and burial ground reputed to have existed here.	Unloc.
6	Northwall, Lady	75 44	Poss. chapel	**301** **3584**	No trace. *NSA* 1845: Dr Wood records foundations of chapel visible at Northwall; poss. the same as Walls (Waas) below: **chapel no. 14.**	Unloc.
7	Lopness, Stackald Brae, Lady	7589 4379	Poss. chapel	**284** **3585**	No trace. Marwick 1923: records old chapel with walls and gable surviving; chapel marked on Aberdeen's map of N Sanday, 1760.	Unloc.
8	Scofferland, Lady	765 437	Poss. chapel	**3586**	No trace. Old chapel marked on Aberdeen's N Sanday map 1760: no other information.	Unloc.
9	Park, Lady	771 437	Poss. chapel	**299** **3587**	No trace. Aberdeen's N Sanday map 1760; Marwick 1923; RCAMS 1946 and RCAHMS 1980. Old chapel marked on Aberdeen map; site now covered with farm buildings.	Unloc.
10	Cleat, Lady	707 427	Poss. chapel	**274** **3625**	No trace. Marwick 1923 pp. 25-7: 'most sacred' chapel. Small chapel supposedly on knoll near farmhouse of Cleat.	Unloc.
11	Peterkirk, Lady	7136 4363	Poss. chapel	**276**	RCAMS 1946 and RCAHMS 1980: chapel reputed to have been built on prehistoric site; **see mound no. 53 above.** No trace.	Coast-edge pasture
12	St Mary's Chapel, Lady	719 420	Poss. chapel	**185** **3627**	RCAMS 1946 and RCAHMS 1980: no trace by 1970. Remains of old building previously noted S of Newark farmhouse in field by shore called Mary Park.	Coast-edge
13	Chapel of Aristas, Lady	7167 4257	Poss. chapel	**349** **3628**	RCAMS 1946 and RCAHMS 1980: no trace. All that remains is Chapel Park field name.	Unloc.
14	Walls, Lady	754 445	Poss. chapel	**397** **3607**	RCAMS 1946 and RCAHMS 1980: no trace. Old chapel marked on Aberdeen's N Sanday map 1760.	Unloc.
15	Stove, Cross and Burness	6110 3551	Eighteenth- century chapel	**102** **3418**	RCAMS 1946 and RCAHMS 1980; CZA 1999: chapel created AD1714, poss. on site earlier chapel. Demolished 1830; now below modern buildings: bones reported when foundations dug.	Gone

Table 7.01: The Mounds of Sanday

	Name: Parish	Grid ref. HY	Category	OSMR	Chapels of Sanday Sources; notes	Location
16	Warsetter, Cross and Burness	630 377	Poss. chapel	**340 3427**	RCAMS 1946. No trace. Remembered in 1922, but already ploughed out	Unloc.
17	Lamba Ness, Cross and Burness	6138 3797	Poss. settlement; alleged chapel	**244 3417**	Marwick 1923; RCAMS 1946 and RCAHMS 1980; CZA 1999; Hunter 2007: disturbed ground at alleged site of ancient chapel: visible as two mounds; poss. settlement mound. Hunter excavation revealed as Iron Age settlement: **see mounds nos 57 and 58 above.**	Coast-edge
18	Holms of Ire, Cross and Burness	6505 4577	Chapel	**106 3483**	RCAHMS 1980; CZA 1999: St Colm's Chapel: remains still visible 1970: foundations and fragmentary gable: 13'6" by 9'6". Rubble still just visible 1999. On tidal island	Islet
19	Chapel Head, Hobbister, Cross and Burness	6536 4136	Poss. chapel/ burials; poss. settlement	**250 3501**	RCAHMS 1980; CZA 1999: poss. chapel site E of farm of Corsequoy: amorphous grassy mound on shore: in related erosion section stone slabs, anthropogenic deposits, peat-ash, and animal bone: **see mound no. 63 above.**	Coast-edge
20	Kirk Geo, Cross and Burness	6568 4381	Poss. chapel	**112 3515**	No trace. *Original Name-Book* Vol. 2 records ancient chapel in this area; attested only by place-name.	Unloc.
21	Chapel of Start, Start Island, Lady	7840 4368	Poss. chapel	**298 3590**	Aberdeen Map 1760; Marwick 1923; RCAMS 1946 and RCAHMS 1980; CZA 1999: grassy rise: poss. burial mound; poss. site of chapel on Aberdeen map: **see mound no. 130 above.**	Coast-edge
22	Westbrough, Cross and Burness	663 423	Poss. chapel	**1040**	OSMR: valuation roll of AD1776 mentions ruinous Old Chapel apparently associated with Westbrough.	Unloc
23	Tres Ness, Kirk Banks, Lady	7023 3870	Poss. chapel	**148 3568**	*NSA* 1845; RCAHMS 1980: chapel recorded in *NSA*; no knowledge by 1980.	Coast-edge
24	Old Parish Church of Lady	6770 3994	Parish church	**143**	RCAMS 1946 and RCAHMS 1980: standing ruins are eighteenth-century; old walling may be incorporated, possibly an older site: **see mound no. 19 above.**	Coast-edge
25	The Kirk and Kill o' Howe, Lady	7491 4535 7503 4528	Poss. chapels; probable settlement	**246**	Marwick 1923; RCAMS 1946 and RCAHMS 1980; Dockrill et al 2007: twin summits traditionally sites of chapels. Magnetic scanning (2007, 38) suggests substantial settlement-related deposits: **see mounds nos 21 and 21a above.**	Inland: 300m
26	Cross Parish Church, Cross and Burness	6537 3920	Parish church	**315 3412**	RCAMS 1946 and RCAHMS 1980; CZA 1999: disused church (late seventeenth-century) with cemetery; allegedly built over earlier chapel. Mounded area on E side cemetery; earthworks to W: settlement or earlier chapel. Midden and structural remains seen in erosion section of mound 1999: 'likely site for a high-status Norse settlement'.	Coast-edge
27	Buryan, Lady	773 434	Poss. chapel	**280**	Marwick 1923; RCAMS 1946 and RCAHMS 1980. Unlocated; probably here: mentioned in Marwick: **near broch no. 47 above.**	Coast-edge Unloc.
28	St Columba, Cross and Burness	6709 4490 cemetery	Former parish church	**388**	Marwick 1923; RCAMS 1946: now burial ground only. Local tradition of church dedicated to St Columba; no trace of church. Burial ground still in use: **see mound no. 1 above.**	Inland: 400m

Table 7.01: The Mounds of Sanday

Canmore was used much more for Sanday as it has most recent excavation, investigations and details recorded; OSMR was sometimes lacking recent detail for this island

1. **Locations defined as follows:**

   Coast-edge: between Mean High Water Line and c. 100m inland;

   Inland: approximate distances inland from nearest Mean High Water Line: calculated usually only for known/possible settlement mounds.
2. **Geology:** drift geology given where possible.
3. **Italicised entries:** non-mound/non-chapel evidence of relevance.

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Table 7.02: Mound location and mound-related building techniques: Sanday

	Pool (Sanday)
General	
500m or less from coast/on arm of bay	Coast-edge
Built into windblown sand	Yes
Constructed on an existing settlement mound or natural hillock/rise	Yes
Overlooking significant Iron Age settlement: brochs/ prehistoric funerary monuments	Probably
Near or possessing *skáli*-names	No
Built over and into pre Viking-Late Norse structures and middens and/or preceding Viking-Late Norse structures and middens, resulting in archaeological layers of structures, midden-type material, yards and surfaces,	Yes
Extensive, frequent and undisguised modifications and rebuilding, sometimes linked to change of use e.g. from byre to domestic; or elongation/shortening of the main longhouse[1]	Yes
Addition of ancillary buildings and annexes to ends and sides of longhouses; often joined by passage, walls, yards	Yes
Use of stone (flags/beach cobbles), turf and midden in building; wood used for internal features and roof structures	Yes
Applications of a range of midden-type material	
Accumulation and storage of midden-type material often for future re-use	Yes
Stabilising external work/pedestrian surfaces with midden-type material, usually mixed with sand: "sheet midden" (refuse, some redeposited from a midden store, scattered on the ground)	Yes
Structured midden: deposited deliberately to build up mounds and stabilise slopes, sometimes held in place by arcs of stone/ rough, low stone walls	Yes
Creating floors using midden-type material: clay-rich/ash-rich material often used on internal floors	Yes
Using midden-type material as wall-core and as revetting for single-faced walls	Yes
Digging down into stable midden-type material accumulated around existing structures to build walls, and into abandoned structures infilled with midden-type material and/or partially levelled	Yes
Walls and internal features	
New walls built against old walls, sometimes incorporating existing courses (also seen in the Iron Age, especially building of new walls inside old ones to reduce internal area), often linked to digging down into floors/midden-type material	Yes
Partially demolishing and then re-using remnants of walls	Probably
Building directly over and/or incorporating walls, usually when internal surfaces had been raised by both floor accumulations and deliberate rapid infilling of buildings	Yes

[1] A typical sequence might be: initial relatively small domestic structure with separate out-houses; addition of a byre-end; addition of yards, passages and pathways and changes to out-buildings creating a connected complex of buildings; extension of the domestic end; decline in use; use as animal pens or midden storage; abandonment.

Table 7.02: Mound location and mound-related building techniques: Sanday

Re-aligning or extending walls, but not attempting to match building techniques or existing alignment; extension walls often have obvious kinks marking new build and use different size/shape of stones and/or courses	Yes
Shortening buildings with new/modified internal and external walls, and partitioning buildings with the insertion differently built cross- or partition-walls	Yes
Frequent modification of internal features often associated with floor accumulation and/or change of use	Yes
Frequently found internal features**: s**tone-lined and capped drains; orthostatic bench supports, boxes, and compartments; small and perhaps sequential peripatetic hearths; chock-stones and partitioning using chock-stones and wood/hurdles; repeated re-paving and use of areas of rough paving	Yes

Table 8.01: All skaill place-names in Orkney

skaill-site *disappeared names*	Island	Location NGR	Distance to coast (to approx. MHW)	Near poss. early chapel[1]	Modern building on site	1. Built on or into earlier buildings 2. Period	1.Site on mound 2.Height m OD 3. By burn	Visibility	Near other place names	Geology
1. **Skaill, Sandwick**	West Mainland	23440 18590	**Near coast**: 280m W	Almost certainly	Yes	Not certain	Possibly/levelled: 11mOD Yes	Bay centre	Vanished *Langskaill* in Scarwell	WBS
2. ***Langskaill, Sandwick***	West Mainland	Scarwell c. 245 208	**c. 1km from coast**	Almost certainly	?	?	?	Slopes of bay	Skaill, Sandwick	Deep topsoil?
3. ***Langskaill*, Birsay**	West Mainland	c. 24880 27400	**Near coast**: less than 500m W	Yes: c. 400m NW	?	?	Yes: c. 15mOD Yes	Mound above bay	Wattle: c 1km E	WBS
4. **Langskaill, Marwick**	West Mainland	23580 24680	**Near coast**: 740m W *Original Langskaill?*	Yes: 830m SW	Yes	Almost certainly: V/LN	Yes: 24mOD Yes	Mound above bay	Netherskaill: 240m SW	**Deep topsoil**
5. **Netherskaill, Marwick**	West Mainland	23450 24490	**Near coast**: 550m W *Later addition?*	Yes: 600m SW	Yes	Almost certainly: V/LN	Yes: 16mOD Yes	Mound above bay	Langskaill: 240m NE	**Deep topsoil**
6. **Langskaill, Harray**	West Mainland	31823 15070	**Inland**: 1km NE Loch of Harray	St Mary's Kirk: 1km SW	Yes	Possibly	Spread mound: 25mOD Yes	On spread mound and slope	Biggings: 750m SW	**Deep topsoil/** Glacial till
7. **Langskaill, Stromness**	West Mainland	24430 14360	**Inland**: 1.5km W of Loch of Stenness	Kirkbister: 350m NE	Large farm	Possibly: deep topsoil	Spread mound: 25mOD Yes	Slope/ mound Land route	–	**Deep topsoil/** Glacial till
8. **Skaill, Rendall**	West Mainland	39720 18500	**Coast edge:** 20m SE	St Mary's Kirk: 400m NE	Farm	?	Slight mound: 3mOD Yes	Coast-edge Sea-route	–	Glacial till/ sand-drift
9. **Langskaill, Gairsay (Rendall)**	Gairsay	43470 21960	**Near coast/island:** 140m S	Site to NW of farm poss. chapel	Just NW 17th C castle	Probably	Yes 5mOD Yes	Coast-edge mound	Skelbist 1.2km E	Glacial till/ Sand-drift
10. **Skelbist, Gairsay, (Rendall)**	Gairsay	44600 22060	**Above lochan/ island**: sea 370m SE *Later naming?*	–	Yes	?	Broad mound: 30mOD Yes	Hillside	Langskaill 1.2km W	Glacial till/ sand drift
11. **Skaill, Orphir**	West Mainland	35260 10210	**Inland**: 1.3km NW Loch of Kirbister	Tuskerbister chapel: 125m NE	Farm and cottage	?	Spread mound: 36mOD Yes	Ridge above loch	Skelbister: 1.7km SE	**Deep topsoil/** Glacial till

[1] Although these chapels cannot be dated the details are included as the proximity of a purportedly early chapel may indicate the later Viking-Late Norse significance of the area

Table 8.01: All skaill place-names in Orkney

skaill-site *disappeared names*	**Island**	**Location NGR**	**Distance to coast (to approx. MHW)**	**Near poss. early chapel**[1]	**Modern building on site**	**1. Built on or into earlier buildings 2. Period**	**1.Site on mound 2.Height m OD 3. By burn**	**Visibility**	**Near other place names**	**Geology**
12. **Skelbister/ *Skaillbister*, Orphir**	West Mainland	36500 09060	**Inland:** 250m NE Loch of Kirbister *Later addition*	Groundwater chapel: 750m SE	Large farm	?	Spread mound 32mOD Hillside Yes	Hillside	Skaill: 1.7km NW	**Deep topsoil**? Glacial till
13. **Aikerskaill, Deerness**	East Mainland	58450 04730	**Headland**: sea 500m E *Addition/later naming?*	Newark: 1.2km SW	Yes	?	Mound on ridge: 30mOD	Mound on ridge	Pool 0.5km: NE	Glacial till
14. **Skaill, Deerness**	East Mainland	58830 06420	**Near coast**: sea 80-100m E	Skaill church: 50m S	Yes	Uncertain: BA-Pictish/ V/LN within 500m	Very disturbed, Yes: 3mOD Yes	Coast-edge mound	Stove: 1km NW	WBS
15. **Langskaill, St Andrew's**	Mainland	50930 05810	**Inland**: sea 1.3km E	St Ninian's 440m NNE	Yes	Possible: near Mine Howe/ poss. broch	Broad mound 20mOD Yes	On ridge	New Bigging 1.7km NE	Glacial till
16. **Skaill, Holm**	Mainland	48160 12530	**Inland ridge**: sea 1.1km SE	–	Yes	Older poss. 19th C walls visible on site	Mound on ridge: 28mOD Yes	Mound on ridge	Biggings 0.35km SW *Skaills* 2.7km	**Deep top soil** Over USF[2]
17. ***Skaills*, Holm**	Mainland	50710 15700	**Inland hillside**: sea 860m SW *Later naming*	–	No	Site no longer visible	No 50m OD No	Mound?	Skaill 2.7km	**Deep top soil** Over USF
18. **Backaskaill/ Backiskaill Papa Westray**	Papa Westray	48460 50860	**Near coast**: 50m W *Later division*	St Treadwell's 840m E St Boniface 1.8km N	Yes	Possibly IA-V/LN	Broad mound Coastal erosion section: 5mOD Yes	Coast-edge	Breckiskaill 310m E	Over USF WBS
19. **Breckiskaill Papa Westray**	Papa Westray	48780 50910	**Near coast:** 380m W *Later division*	St Treadwell's 1.2km E St Boniface 1.8km N	Yes	?	Slight, spread mound: 19mOD Yes	Slight mound	Backiskaill 310m W	Over USF
20. **Breckaskaill, Westray**	Westray	45110 50180	**Near coast**: 680m E *Later addition?*	Yes: 1.7km SW	Yes	?	Buildings on mound: 18mOD	Mound on ridge	Skaill 2km NNE	Glacial till

[2] Both the Holm sites seem to be located on pockets of land without glacial till drift geology: possible deep topsoils.

Table 8.01: All skaill place-names in Orkney

skaill-site *disappeared names*	Island	Location NGR	Distance to coast (to approx. MHW)	Near poss. early chapel[1]	Modern building on site	1. Built on or into earlier buildings 2. Period	1.Site on mound 2.Height m OD 3. By burn	Visibility	Near other place names	Geology
21. **Langskaill, (Midbea) Westray**	Westray	43860 42850	**Near coast**: 430m SE	Yes: 1.7km ESE	Yes	Yes IA-V/LN	Buildings on rise: 23mOD Yes?	Ridge above bay	Velzie: 1.3km	WBS
22. **Langskaill, (Skel Wick) Westray**	Westray	48730 45160	**Near coast**: 300m NE	Yes? c 250m E	Yes	?	Buildings on mound: 25mOD Yes	Mound/ slope	West, North and South Langskaill	Glacial till
23. **South Langskaill, Westray**	Westray	48650 44980	**Near coast:** 400m NE *Addition to Langskaill*	Yes? 300m E	Yes	?	Buildings on mound: 30mOD Well	Mound/ slope	Langskaill, West and North Langskaill	Glacial till
24. **North Langskaill, Westray**	Westray	48560 4521	**Near coast:** 400m NE *Later addition*	Yes? 400m E	Yes	?	Buildings on mound: 32mOD Well/burn	Mound/ slope	Langskaill, West and South Langskaill	Glacial till
25. ***West Langskaill*, Westray**	Westray	48440 45170	**Near coast:** 500m NE *Addition to Langskaill*	Yes? 400m E	Yes	?	Buildings on mound: 34mOD Yes	Mound/ slope	Langskaill, South and North Langskaill	Glacial till
26. **Skaill, Westray**	Westray	45660 52200	**Near coast**: 300m NE	–	Yes	?	Farm on mound: 15mOD	Mound above bay	Breckaskaill 2km SSW	WBS
27. ***Skaill*, Rousay**	Rousay	37370 30100	**Near coast**: c 50m SW	Possibly: c 70m N	Ruins: 1845	Yes? V/LN	Mounds in area: c. 5mOD Well	Coast-edge	–	Glacial till/ sand-drift
28. **Saviskaill, Rousay**	Rousay	40040 33520	**Near coast**: 50m SE *Later naming/division*	Yes: 400m SW; 650m W; 660m SE	Large farm	Yes?: structures in coastal-section	Farm on mound: c. 5mOD Coastal-section Yes	Coast-edge	Langskaill 700m SSE	Glacial till/ sand-drift
29. **Langskaill, Rousay**	Rousay	40270 32870	**Near coast**: 350m NNE	Yes?: 350m NE	Large farm	?	Farm on mound: c. 17mOD Well: burn 200m	Mound above bay	Saviskaill 700m NNW	Glacial till
30. **Nether Skaill, Egilsay**	Egilsay	46195 30262	**Near coast**: 20m SW *Later division*	Yes: 0.4km NE St Magnus	Yes	Yes?	Coastal-section mound: c. 5mOD Yes	Coast-edge	Mid Skaill: 100m S	Glacial till/ sand-drift

Descriptive Catalogue 2: Table 8.01, pp. 530-33.

Table 8.01: All skaill place-names in Orkney

skaill-site *disappeared names*	**Island**	**Location NGR**	**Distance to coast (to approx. MHW)**	**Near poss. early chapel[1]**	**Modern building on site**	**1. Built on or into earlier buildings 2. Period**	**1.Site on mound 2.Height m OD 3. By burn**	**Visibility**	**Near other place names**	**Geology**
31. **Mid Skaill, Egilsay**	Egilsay	46279 30126	**Near coast**: 60m SW *Later division*	Yes: 0.4km NE St Magnus	Yes	Yes?	On broad mound: c.10mOD Yes	Coast-edge mound	Nether Skaill: 100m N	Glacial till/ sand-drift
32. **Skelbister, Cross**	Sanday	65740 40390	**Inland by loch**: 150m NE *Later addition*	Yes: 1.3km SW	Yes	?	? 10mOD No	?	–	Glacial till
33. **Backaskaill, Cross**	Sanday	64190 39310	**Near coast**: 100m S	Yes: 1.2km E	Large farm	Yes IA/?	Farm on mound: 20mOD Yes	Mound	Howe, Bu c. 2km E	WBS
34. **Skaill, Lady**	Sanday	68970 40310	**Near coast**: 440m NE	Yes: 200m NE	Yes	?	No 13mOD Yes	On ridge above bay	Beafield 400m NE	WBS
35. **Skelbrae, Burness**	Sanday	67530 43760	**Near coast**: 180m SE *Later addition*	Yes: 1.3km NNW	Yes	Yes Prehis/V/LN	Farm on mound: c. 10m OD	Mound	Langskaill, Northskaill	WBS
36. **Northskaill, Burness**	Sanday	68140 44470	**Near coast**: 250m E *Later addition?*	Yes: 1.1km NW	Yes	?	Farm on mound: c. 5mOD Well	Mound	Langskaill, Skelbrae	WBS
37. **Langskaill, Burness**	Sanday	68360 44420	**Eroding coastal mound**	Yes: 1.3km NW	–	Yes?	Yes: c. 3mOD	Coast-edge mound	Northskaill, Skelbrae	WBS
38. **Skaill, Eday**	Eday	56790 32640	**Near sea**:20m E	14th C parish church 200m N	Yes	?	Broad low mound: c. 5mOD	Coast-edge mound	–	Glacial till

Table 8.02: Skaill only place-names in Orkney

Skaill site *disappeared names*	Island	Location NGR	Distance to coast (to approx. MHW)	Near poss. early chapel[1]	Modern building on site	1. Built on or into earlier buildings 2. Period	1.Site on mound 2.Height m OD 3. By burn	Visibility	Near other place names	Geology
1. **Skaill, Sandwick**	West Mainland	23440 18590	**Near sea**: 280m W	Almost certainly	Yes	Not certain	Possibly levelled: 11mOD Yes	Bay centre	Vanished *Langskaill* in Scorwell	WBS
2. **Skaill, Rendall**	West Mainland	39720 18500	**Coast-edge:** 20m SE	St Mary's Kirk: 400m NE	Farm	?	Slight mound: 3mOD Yes	Coast edge	–	Glacial till/ sand-drift
3. **Skaill, Orphir**	West Mainland	35260 10210	**Inland**: 1.3km NW Loch of Kirbister	Tuskerbister chapel: 125m NE	Farm and cottage	?	Spread mound: 36mOD Yes	Ridge above loch	Skelbister: 1.7km SE	**Deep topsoil**? Glacial till
4. **Skaill, Deerness**	East Mainland	58830 06420	**Bay-side**: sea 80-100m E	Skaill church: 50m S	Yes	Uncertain: BA-Pictish/ V/LN within 500m	Very disturbed: 3mOD Yes	Coast-edge mound	Stove: 1km NW	WBS
5. **Skaill, Holm**	Mainland	48160 12530	**Inland ridge**: sea 1.1km SE	–	Yes	Older 19th C? walls visible on site	Mound on ridge: 28mOD Yes	Mound on ridge	Biggings 0.35km SW *Skaills* 2.7km	**Deep top soil** Over USF
6. ***Skaills*, Holm**	Mainland	50710 15700	**Inland hillside**: sea 860m SW	–	No	Site no longer visible	No 50mOD No	Mound?	Skaill 2.7km	**Deep top soil** Over USF
7. **Skaill, Westray**	Westray	45660 52200	**Near sea**: 300m NE	–	Yes	?	Farm on mound: 15m OD	Mound	Breckaskaill 2km SSW	WBS
8. ***Skaill*, Rousay**	Rousay	37370 30100	**Near sea**: c. 50m SW	Possibly: c. 70m N	Ruins: 1845	Yes? V/LN	Mounds in area c. 5mOD Well	Coast-edge	–	Glacial till/ sand-drift
9. **Skaill, Lady**	Sanday	68970 40310	**Near sea**: 440m NE	Yes: 200m NE	Yes	?	No 13mOD Yes	On ridge above bay	Beafield 400m NE	WBS
10. **Skaill, Eday**	Eday	56790 32640	**Near sea**: 20m E	14th C parish church 200m N	Yes	?	Broad low mound: c. 5mOD Yes	Coast-edge mound	–	Glacial till

[1] Although these chapels cannot be dated the details are included as the proximity of a purportedly early chapel may indicate the later Viking-Late Norse significance of the area.

Table 8.03: Langskaill place-names in Orkney

Langskaill site *disappeared names*	Island	Location NGR	Distance to coast (to approx. MHW)	Near poss. early chapel[1]	Modern building on site	1. Built on or into earlier buildings 2. Period	1.Site on mound 2.Height m OD 3. By burn	Visibility	Near other place names	Geology
1. ***Langskaill, Sandwick***	West Mainland	Scarwell c. 245 208	**c 1km from sea**	Almost certainly	?	?	?	?	Skaill, Sandwick	?
2. ***Langskaill,* Birsay**	West Mainland	c. 24880 27400	**Near sea**: less than 500m W	Yes: c 400m NW	?	?	Yes? c. 15m OD Yes?	Mound above bay	Wattle: c 1km E	WBS
3. **Langskaill, Marwick**	West Mainland	23580 24680	**Near sea**: 740m W	Yes: 830m SW	Yes	Almost certainly: V/LN	Yes: 24mOD Yes	Mound above bay	Netherskaill: 240m SW	Deep topsoil
4. **Langskaill, Harray**	West Mainland	31823 15070	**Inland**: 1km NE Loch of Harray	St Mary's Kirk: 1km SW	Yes	Possibly: deep topsoil	Spread mound: 25mOD Yes	– On route?	Biggings: 750m SW	**Deep topsoil/** Glacial till
5. **Langskaill, Sandwick (south)**	West Mainland	24430 14360	**Inland**: 1.5km W of Loch of Stenness	Kirkbister: 350m NE	Large farm	Possibly: deep topsoil	Spread mound: 25mOD Yes	– On route?	–	**Deep topsoil/** Glacial till
6. **Langskaill, Gairsay, Rendall**	Gairsay	43470 21960	**Coast edge/ island:** 140m S	Site to NW farm possibly a chapel	Just NW 17th C castle	?	Yes 5mOD Yes	Coast edge mound	Skelbist 1.2km E	Glacial till/ sand drift
7. **Langskaill, St Andrew's**	Mainland	50930 05810	**Inland**: sea 1.3km E	St Ninian's 440m NNE	Yes	Uncertain: near Mine Howe/ poss. broch	Broad mound 20mOD Yes	Mound?	New Bigging 1.7km NE	Glacial till
8. **Langskaill, Westray (Midbea)**	Westray	43860 42850	**Near sea**: 430m SE	Yes: 1.7km ESE	Yes	Yes IA-V/LN	Buildings on rise: 23mOD Yes?	Ridge above bay	Velzie: 1.3km	WBS
9. **Langskaill, Westray (Skel Wick)**	Westray	48730 45160	**Near sea**: 300m NE	Yes? c. 250m E	Yes	?	Buildings on mound: 25mOD Yes	Slight mound	Skel Wick, West and South Langskaill	Glacial till
10. **South Langskaill, Westray**	Westray	48650 44980	**Near sea**: 400m NE	Yes? 300m E	Yes	?	Buildings on mound: 30mOD Well	Slight mound	Langskaill, Skel Wick, West Langskaill	Over USF

[1] Although these chapels cannot be dated the details are included as the proximity of a purportedly early chapel may indicate the later Viking-Late Norse significance of the area.

Table 8.03: Langskaill place-names in Orkney

Langskaill site *disappeared names*	**Island**	**Location NGR**	**Distance to coast (to approx. MHW)**	**Near poss. early chapel[1]**	**Modern building on site**	**1. Built on or into earlier buildings 2. Period**	**1.Site on mound 2.Height m OD 3. By burn**	**Visibility**	**Near other place names**	**Geology**
11. ***West Langskaill*, Westray**	Westray	48440 45170	**Near sea**: 500m NE	Yes? 400m E	Yes	?	Buildings on mound: 34mOD Yes	Slight mound	Skel Wick, Langskaill, South Langskaill	Over USF
12. **Langskaill, Rousay**	Rousay	40270 32870	**Near sea**: 350m NNE	Yes?: 350m NE	Large farm	?	Farm on mound c .17mOD Well: burn 200m	Mound above bay	Saviskaill 700m NNW	Glacial till
13. **Langskaill, Burness**	Sanday	68360 44420	Eroding coastal mound	Yes: 1.3km NW	–	Yes?	Yes c. 3mOD	Coast edge	Northskaill, Skelbrae	WBS

Table 8.04: -skaill place-names in Orkney

-skaill site *disappeared names*	Island	Location NGR	Distance to coast (to approx. MHW)	Near poss. early chapel[1]	Modern building on site	1. Built on or into earlier buildings 2. Period	1.Site on mound 2.Height m OD 3. By burn	Visibility	Near other place names	Geology
1. **Netherskaill, Marwick**	West Mainland	23450 24490	**Near sea**: 550m W	Yes: 600m SW	Yes	Almost certainly: V/LN	Yes: 16mOD Yes	Mound above bay	Langskaill: 240m NE	**Deep topsoil**
2. **Skelbist, Gairsay, Rendall**	Gairsay	44600 22060	**Above lochan/ island**: sea 370m SE	_	Yes	?	Broad mound 30mOD Yes	Hillside	Langskaill 1.2km W	Glacial till/ sand drift
3. **Skelbister/ *Skaillbister*, Orphir**	West Mainland	36500 09060	**Inland:** 250m NE Loch of Kirbister	Groundwater chapel: 750m SE	Large farm	?	Spread mound 32mOD Hillside Yes	Hillside	Skaill: 1.7km NW	**Deep topsoil**? Glacial till
4. **Aikerskaill, Deerness**	East Mainland	58450 04730	**Headland**: sea 500m E	Newark: 1.2km SW	Yes	?	Mound on ridge: 30mOD	Mound on ridge	Pool 0.5km: NE	Glacial till
5. **Backaskaill/ Backiskaill Papa Westray**	Papa Westray	48460 50860	**Coast-edge**: 50m W	St Treadwell's 840m E St Boniface 1.8km N	Yes	Possibly IA-V/LN	Broad mound Coastal erosion section: 5mOD Yes	Coast-edge	Breckiskaill 310m E	Over USF WBS
6. **Breckiskaill Papa Westray**	Papa Westray	48780 50910	**Near sea**: 380m W	St Treadwell's 1.2km E St Boniface 1.8km N	Yes	?	Slight, spread mound: 19mOD Yes	Slight mound	Backiskaill 310m W	Over USF
7. **Breckaskaill, Westray**	Westray	45110 50180	**Near sea**: 680m E	Yes: 1.7km SW	Yes	?	Buildings on mound: 18mOD	Mound on ridge	Skaill 2km NNE	Glacial till
8. **South Langskaill, Westray**	Westray	48650 44980	**Near sea**: 400m NE	Yes? 300m E	Yes	?	Buildings on mound: 30mOD Well	Slight mound	Langskaill, Skel Wick, West Langskaill	Over USF
9. ***West Langskaill*, Westray**	Westray	48440 45170	**Near sea**: 500m NE	Yes? 400m E	Yes	?	Buildings on mound: 34mOD Yes	Slight mound	Skel Wick, Langskaill, South Langskaill	Over USF
10. **Saviskaill, Rousay**	Rousay	40040 33520	**Coast-edge**: 50m SE	Yes: 400m SW; 650m W; 660m SE	Large farm	Yes? structures in coastal-section	Farm on mound c. 5mOD Coastal section Yes	Coast-edge	Langskaill 700m SSE	Glacial till/ sand-drift

[1] Although these chapels cannot be dated the details are included as the proximity of a purportedly early chapel may indicate the later Viking-Late Norse significance of the area

Table 8.04: -skaill place-names in Orkney

-skaill site *disappeared names*	Island	Location NGR	Distance to coast (to approx. MHW)	Near poss. early chapel[1]	Modern building on site	1. Built on or into earlier buildings 2. Period	1.Site on mound 2.Height m OD 3. By burn	Visibility	Near other place names	Geology
11. **Nether Skaill, Egilsay**	Egilsay	46195 30262	**Near sea**: 20m SW	Yes: 0.4km NE St Magnus	Yes	Yes?	Eroding coastal section: c. 5m OD Yes	Coast-edge	Mid Skaill: 100m S	Glacial till/ sand drift
12. **Mid Skaill, Egilsay**	Egilsay	46279 30126	**Near sea**: 60m SW	Yes: 0.4km NE St Magnus	Yes	Yes?	Buildings on broad mound c. 10mOD Yes	Coast-edge	Nether Skaill: 100m N	Glacial till/ Sand-drift
13. **Skelbister, Cross**	Sanday	65740 40390	**Inland by loch**: 150m NE	Yes: 1.3km SW	Yes	?	? 10mOD No	?	_	Glacial till
14. **Backaskaill, Cross**	Sanday	64190 39310	**Near sea**: 100m S	Yes: 1.2km E	Large farm	Yes IA/?	Farm on mound 20mOD Yes	Mound	Howe, Bu c. 2km E	WBS
15. **Skelbrae, Burness**	Sanday	67530 43760	**Near sea**: 180m SE	Yes: 1.3km NNW	Yes	Yes Prehis/V/LN	Farm on mound c. 10m OD	Mound	Langskaill, Northskaill	WBS
16. **Northskaill, Burness**	Sanday	68140 44470	**Near sea**: 250m E	Yes: 1.1km NW	Yes	?	Farm on mound c. 5m OD Well	Mound	Langskaill, Skelbrae	WBS

Red: possible divided Langskaill;
Blue: possible divided/added to Skaill
Green: possible later naming

Table 8.05: Cleat-sites on Orkney

No.	Cleat, Parish	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only for those sites discussed in detail in text); notes	Diam. approx.	Location Geology
1	Cleat, St Ola, Mainland	4698 1175 4694 1235	Prehis. burial Settlement mound	**2437** **2453**	Hedges 1981; RCAHMS 1946: stone cist with cremated bones found during ploughing on slight natural rise in 1969 and excavated. Large old farm on prominent mound (in *Rentals*).	N/a c.110m	Crest on hill 30mOD On spur Coast 600m 40mOD
1a	Head of Holland, St Ola, Mainland	4793 1171	Poss. chapel	**2434**	RCAHMS 1946: grass-covered earthworks of rectangular building with poss. southern entrance; aligned WNW-ESE, c. 11 by 4.5m, and 1.96km SE of Cleat farm across the sandy bay of Meil.		Coast-edge WBS 8mOD
2	Cleat, Holm, Mainland	4637 0173	Farm	**182638**	Canmore records an enclosure depicted on the First Edition OS 6-inch map 1882; the farm is 2km SW of a Skaill site; 1.5km SW of Biggings.	_	Coast-edge 70m to sea
3	Cleat, Stronsay	6880 2208 6841 2231	Indeterminate mound Settlement mound Chapel	**3376** **3380**	RCAHMS 1984: low, amorphous mound at the junction of several ancient field boundaries. Marwick 1927; RCAHMS 1946 and 1984: traditionally a chapel located in enclosure S of Cleat farm-house. Small mound in enclosure also reputed to have contained a stone chamber. The large farm stands on a considerable settlement mound within which much building stone and some limpet shells have been found: on Bay of Houseby; Houseby 1.3km SW.	c. 20m c.100m	Slope c. 15mOD Spur 30mOD Coast 400m south Glacial till
3a	'The Danes Pier', Stronsay	6876 2142	Poss. harbour construction	**3382**	Gibson 2008; RCAHMS 1946 and 1984: possible L-shaped harbour construction of piled stones.	N/a	-
4	Cleat, Sanday	7044 4274 714 427 7039 4302 6996 4243	Settlement Poss. prehis - V/LN burial(s) Indeterminate	**275** **3611** **811** **3614** **2802** **306733**	RCAMHS 1946 and 1980: modern farm occupies distinct tell. 1. Long-cist reportedly found in a small mound behind the farm buildings. 2. CZA 1999: eroding stone cist seen 1982 in low amorphous mound. In 1999, mound gone but cist seen surrounded by anthropogenic soils, probably within a kerbed mound. One remaining side of cist box, formed from a single slab, protruded from the section. The cist measured c. 0.55m by 0.79m. To W of the cist, flat slabs extend outwards for 2m, covering a layer of ashy, organic soil: the basal deposits of the mound. 3. CZA 1999: a truncated, grassy mound extends beneath road to the shore: no visible exposures.	70m+ c.10m c.15m	Backshore WBS 3 OD By shore WBS By shore WBS

Table 8.05: Cleat-sites on Orkney

No.	Cleat, Parish	Grid ref. HY	Category	OSMR Canmore	Sources (selected sources only for those sites discussed in detail in text); notes	Diam. approx.	Location Geology
5	Cleat, Westray	4670 4663 4657 4682	V/LN settlement Multi-period? Poss. V/LN settlement	**706** **2744** **703**	CZA 1998; DES 1997; RCAHMS: walling, flagging and midden incl. fish midden. DES 1997: test-pit dug. Finds included Viking Age spherical weight, steatite sherds and a femur head spindle whorl. RC14 date AD 870-1280 (TO-6344): Maleszka 2003. CZA 1998; RCAHMS: large shapeless mound; plus poss. burials	30m + 20m +	Shoreline WBS Headland WBS
6	Klettar, Papa Westray	4870 5269	Kelping pit	**296595**	CZA 1998: kelping pit is exposed in the coastal section. Klettar name is 500m south of St Boniface: see Papa Westray pp. ***	N/a	Coast-edge WBS
7	Cleat, South Ronaldsay	Centred on ND 4562 8451	Settlement	**182530**	Farmstead marked on First Edition OS 6-inch map 1882, Cleat name applies to group of houses on a ridge. St Colm's Chapel 1.6km ESE; Biggings 800m West.	Ridge	Ridge, coast c. 1km 40mOD Glacial till
7a	St Colm's Chapel, South Ronaldsay	ND 4417 8426	Chapel	**9563**	Original Name-Book; CZA 1997: St. Colm's chapel built on an islet in Burwick Loch, reputedly ninth-century, and only place of worship in parish before St Mary's Church established in eleventh-century. Loch was drained and remains are visible only as slight earthworks. A grassy bank may define enclosure wall of the burial ground and a ridge, 11m NE-SW, may mark the site of the chapel.	N/a	Coast-edge 3mOD WBS
8	Clett, Graemsay	26965 04910 2672 0483	Farmstead Settlement	**163343** **182577**	RCAHMS: no further information. Farmstead marked on 1st edition OS 6-inch map 1882.	_	Near coast Near coast
9	Grassy Clett, Hoy	ND 2837 8810	Poss. settlement	**8919**	RCAHMS: rock isolated at high tide: drystone walling and protruding stone visible on summit and "shell midden" in burrows.	_	Rock
10	Flendie Clett Stroma	ND 3589 7659	Poss. settlement	**9367**	RCAHMS: rock isolated for half of tidal range. Said to have been crowned by Viking "castle"; summit appears to be ringed by drystone wall.	_	Rock

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Abbreviations

BAR: British Archaeological Reports.
BSLAP: Birsay-Skaill Landscape Archaeology Project, University of Oxford 2003-2011. Project Director: David Griffiths; Excavation Director: Jane Harrison (Griffiths and Harrison forthcoming).
Canmore: https://canmore.org.uk/site/search the on-line collections of the Royal Commission on the Ancient and Historical Monuments of Scotland (Home: https://canmore.org.uk/).
CZA: Coastal Zone Assessments.
DES: *Discovery and Excavation in Scotland, New Series*: annual Journal recording new excavation and survey in Scotland.
DSR: *Data Structure Reports*, unpublished excavation reports produced within six months of the end of an excavation season as required by Historic Scotland.
MRE: marine reservoir effect. Radiocarbon dates from a terrestrial and marine organism of equivalent age have a difference of about 400 radiocarbon years because oceans are large carbon-14 reservoirs.
NABO: North Atlantic Biocultural Organisation.
NSA: *The New Statistical Account of Scotland*, (1832-45) drawn up by the Society for the Benefit of the Sons and Daughters of the Clergy from accounts of the ministers of the parishes, published in 1842, Edinburgh.
OBP: Orkney Barrows Project 1993-4, run by Jane Downes: results recorded in RCAHMS.
OFN: Marwick, H. 1952, *Orkney Farm-Names*, Kirkwall: W R Mackintosh.
ON: Old Norse.
Original Name-Books: Ordnance Survey Original Name-Books, 1879-1880; Orkney is in Volume 26: http://www.scotlandsplaces.gov.uk/digital-volumes/ordnance-survey-name-books.
OSA: *The Old Statistical Account of Scotland*, drawn up from accounts of the ministers of the parishes, published in 21 volumes from 1791-99 and edited by Sir John Sinclair. See also Withrington and Grant 1978.
OSL: optically stimulated luminescence – a scientific dating method.
OSMR: Orkney Sites and Monuments Record until 2015 http://www.library.uhi.ac.uk/smr/orksmr.php (last accessed January 2015); http://www.intoorkney.com/ since 2015 when records were merged with Canmore.
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PSAS: Proceedings of the Society of Antiquaries of Scotland.
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RCAHMS: Royal Commission on the Ancient and Historical Monuments of Scotland, online http://www.rcahms.gov.uk/canmore/html Last accessed December 2014.
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STAR: monograph series published by the Scottish Trust for Archaeological Research.
WBS: calcareous windblown sand.

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ON-LINE RESOURCES

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National Records of Scotland: Reference RHP2890: T*itle Plan of the crown lands in the townships of Northdyke, Scarwell and Housegarth, Orkney,* 1849: Description 'No I. Plan of the Crown lands in the Townships of Northdyke, Scarwell and Housegarth in the parish of Sandwick', by Craig and Taylor. [1:2400] 1 in = 3 Imperial chains. 845 x 1149 mm. Ink and colour wash. Compass rose. Tracing paper. Linen backing. Plan coloured to show extent of Crown property and numbered to correspond with acreages, land use and names of townships given in table of contents. Churches, manse, roads and numerous proprietors noted.
http://www.scottish-places.info/parishes/parhistory81.html [Last accessed November 2015]