

Excavation at St Ola's Chapel, South Ronaldsay, Orkney Islands

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Overview

A PROGRAMME of archaeological survey and excavation was undertaken on a site (Figure 1) traditionally associated with St Ola's Chapel, South Ronaldsay, one of the pre-Reformation chapels on the island. Human remains were identified by members of the local Shorewatch Group in an area of coastal erosion. This led to an archaeological survey of the area by AOC Archaeology Group, with the recovery of disturbed human bone, under the terms of the Historic Environment Scotland (HES) Human Remains Call-Off Contract.¹

Parts of two human skeletons, positioned on an east/west alignment were observed in close proximity to a series of features and structures, were found eroding out of the beach head section (Figure 2). A single radiocarbon date, obtained for the later burial, dated it to between AD 1409 and AD 1486 (2 sigma), while artefactual evidence indicates occupation of the site between the 9th and 15th centuries, supporting the presence of a pre-Reformation Christian cemetery on this spot. The majority of an assemblage of steatite artefacts recovered from the site is typical of a Norse medieval settlement. A single fragmentary wall identified to the immediate north of the human remains could not be dated, but it may represent an existing structure, which

1 AOC Archaeology Group is most grateful to the landowner, David Taylor, for permission to excavate, and his son, Vincent Taylor, for information on recent storm damage. Willie Budge and Babette Barthelmess of the local Shorewatch Group provided both advice and the results of their findings. Thanks to John Gooder and Ciara Clarke who managed the fieldwork and post-excavation work. Thanks are due to Don Wilson for his work on-site, and to John Barber for comments on this report. Advice was kindly provided by Julie Gibson of the Orkney Archaeological Trust and Dr Noel Fojut, Head of Archaeological Programmes, and Rod McCullagh, Deputy Head of Programmes and Grants, Historic Scotland. The project was funded by Historic Scotland (now Historic Environment Scotland). The external referees provided helpful comments and useful insights.

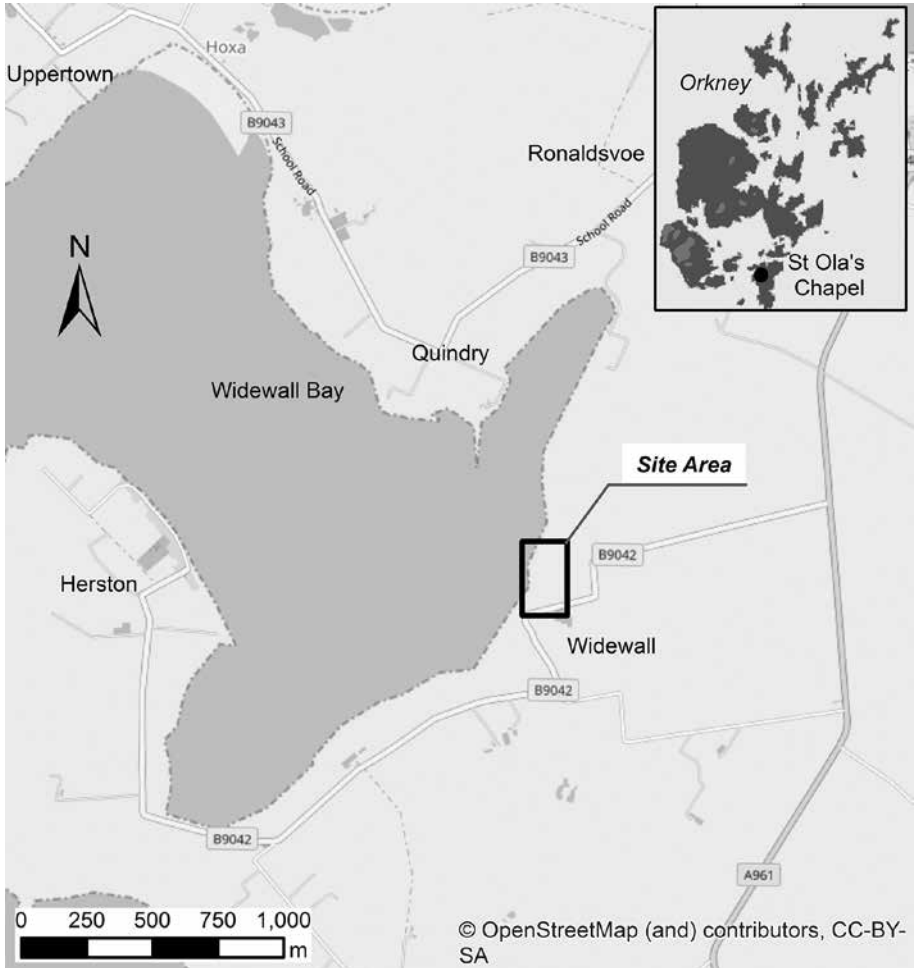


Figure 1: Location of St Ola's Chapel, South Ronaldsay, Orkney.

the burials lay outwith. Additionally, this structure and the cemetery were constructed over a pre-existing settlement site.

Background to the excavation

Marine erosion, exacerbated by the severe storms of January 2005, had a detrimental effect on an exposed west-facing coastal section at Kirkhouse, Widewall, South Ronaldsay, Orkney (NGR: ND 4343 9148; Figure 1). During

the course of 2005 and early 2006, the local Shorewatch Group had monitored the erosion and collected worked steatite artefacts, a rotary quern fragment, and fragments of undiagnostic bone. On the discovery of human remains on the surface of the eroding beach immediately to the west of the putative location of St Ola's Chapel, Julie Gibson of the Orkney Archaeological Trust requested assistance from Historic Scotland. Under the terms of the Human Remains Call-Off Contract, AOC Archaeology Group was commissioned to survey the area, remove the disturbed human bone and evaluate the damage to the archaeological resource.

South Ronaldsay has been occupied since the Neolithic as the presence of the Tomb of the Eagles at Isbister, in the south-west of the island, attests.² More locally, the area around Kirkhouse Farm has been inhabited since at least the Iron Age. A series of drystone masonry walls, middens and pottery being identified during stone clearance at Newbigging Farm to the south-west of St Ola's.³ Though hard to date, two burnt mounds at Little Myre and Newbigging Farm may support Bronze Age occupation of the area.⁴ A polished stone axe recovered in the area in the 20th century further supports evidence of Neolithic activity.⁵

The site itself is traditionally associated with St Ola's Chapel, Kirkhouse, and lies in close proximity to pasture, within the sheltered Widewall Bay (Figure 2), adjacent to a freshwater stream. The chapel is referenced in a rental document of June 1627 of the 'Estate of the Parosches of South Ronaldsay and Burray' as, 'Sant Tola chappell in Wydwall, and the landis therof, in the possessioun of Daid Cromertie of Newbeiging, and the sumtymis acclomit and in possessioun of Robert Bursto of Kirkhous'.⁶ While there is an absence of any upstanding surface remains, during the present survey works a slightly raised area of ground, measuring approximately 25 m east/west by 15 m north/south, was visible to the south-east of the human remains, potentially representing a buried structure.

The site is thought to represent one of the pre-Reformation chapels of South Ronaldsay, described in the estate record of 1627, the ruins of seven were still visible in the late 18th century according to the Old Statistical Account.⁷ These are also visible on historic maps of that era.⁸ The New Statistical Account indicates that there were nine pre-Reformation chapels, eight of which

2 Henshall 1963, 205 fig.22.

3 Smith 1983, 20.

4 NRHE Reference ND49SW 17; Smith 1983, 20.

5 *Proceedings of the Society of Antiquaries of Scotland* 1887, 288.

6 Peterkin 1820, 86.

7 Watson 1793, 305.

8 Aberdeen 1769; Bennet 1781; Depot Generale de la Marine 1803.

were associated with burial grounds.⁹ Although several of the early chapels possess names potentially reflective of pre-Norse Christianity (St Ninian, St Colm), St Ola's clearly references the 11th-century St Olaf, king of Norway, who died in battle in 1030. Kirkwall's first church, St Olaf's Kirk, was dedicated to King Olaf Haraldson in 1035, by his foster son, Earl Rognvald Brusison.¹⁰ St Ola's Chapel likely originated some decades after Olaf's canonisation following his death in 1030; Thomson has argued that the dedication of ecclesiastical sites to saints would not necessarily represent the 'real date of the saints' but the period when their 'lives were written and their cults flourished'.¹¹ As noted above, there are records of an existing chapel to St Tola (Olaf) at Widewall in the 17th century¹² and the description of the nine chapels within the New Statistical Account has been suggested as evidence for the survival of these sites, at least as cemeteries, beyond the Reformation.¹³

St Ola's Chapel would have belonged to the parish of St Peter's, one of South Ronaldsay's two parishes, covering the northern two thirds of the island. The parish church, St Peter's, was united to the church of Our Lady and to the church of Burray by 1440 and the parson of these three

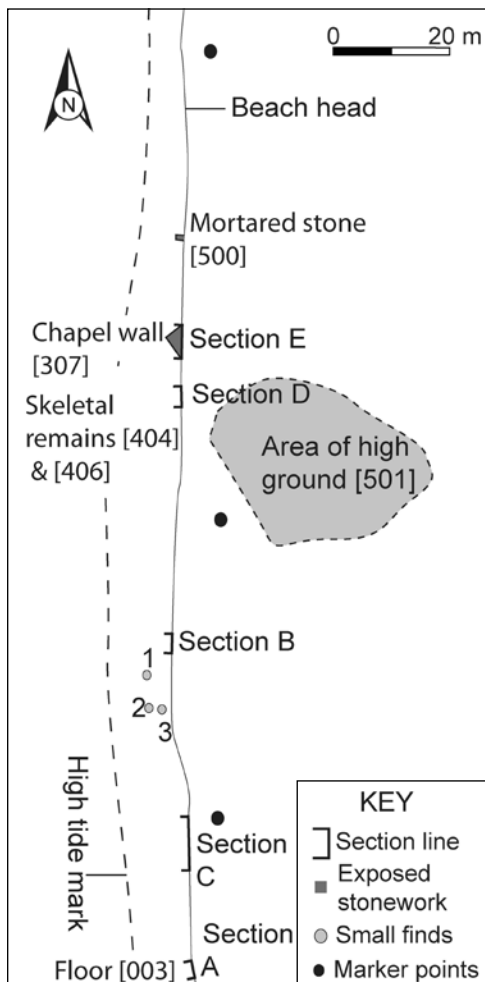


Figure 2: St Ola's Chapel site plan.

9 Gerard 1841, 193.
 10 Wickham-Jones 2015, 131.
 11 Thomson 2007, 523.
 12 <http://www.paparproject.org.uk/orkney4.html>.
 13 *ibid.*

united churches was named as a canon of the cathedral in 1488. Following Bishop Reid’s reconstitution of the bishopric in 1544, the vicarage of Ronaldsay was assigned to the provost of Orkney.¹⁴

Gibbon has identified several historic ecclesiastical sites in the parishes of South Ronaldsay – a parish church with a burial ground, five chapels with burial grounds and an isolated chapel in St Mary’s or the South Parish¹⁵, and one parish church and burial ground, three chapels with burial grounds and two chapels in St Peter’s or the North Parish.¹⁶ Of these ecclesiastical sites, only St Margaret’s has been the subject of modern excavation, and here the excavator identified ‘the foundation of an agricultural stone building 8 m by 4 m with a curved north wall and drain’¹⁷. A mid-18th and early-19th century date was indicated by ‘imported British pottery and glass bottle fragments’.¹⁸ Another of these putative ecclesiastical survivals (Halstead) appears to not be a genuine chapel site.¹⁹

Information regarding these ecclesiastical sites from the records of the National Record of the Historic Environment (NRHE) and the Royal Commission of the Ancient and Historical Monuments of Scotland (RCAHMS), and from the inventory undertaken by Sarah Jane Gibbon as part of her PhD study on early Orkney parishes²⁰ is summarised in Table 1.

Chapel/Parish Church	Probable Date (according to Gibbon ²¹)	Description including Dimensions (where visible)
St Ola’s Chapel and burial ground, Widewall ²²	Pre 1627 (possibly medieval)	No visible remains present.
St Peter’s Church and burial ground ²³	Pre 16th century (possibly pre-Norse Christian)	Existing 17th-century church building; may overlie earlier church.
St Colm’s Chapel, Kirk Geo (or Grim Ness) ²⁴	Pre 1627 (traditionally 13th century AD)	Turf-covered footings of a structure and remains of a stone-built wall. Wall length is ca. 20 m.

14 <http://www.paparproject.org.uk/orkney4.html>.

15 Gibbon 2006, 849.

16 *ibid*, 872.

17 Hedges and Smith 1981, 26.

18 *ibid*.

19 Gibbon 2006, 856.

20 *ibid*, 848-89.

21 *ibid*.

22 NRHE Reference ND49SW 7; Gibbon 2006, 888-9.

23 NRHE Reference ND49SE 27; Gibbon 2006, 875-7.

24 RCAHMS 1946, 290, No.846; Gibbon 2006, 878-80.

St Colm's Chapel, Hoxa ²⁵	Pre 1627 (possibly medieval)	A knoll, 17 m north-west/south-east x 13 m north-east/south-west may represent the chapel. There is another small mound to its north-west. While there is an absence of clear remains of the chapel itself, an earlier settlement was present.
St Margaret's Chapel, Hope ²⁶	Pre 1627 (possibly 13th century)	No visible remains present. Foundation remains uncovered during excavations in the 1970s on the putative site of the chapel were of a mid-18th to early-19th-century agricultural building.
St Ninian's Chapel and burial ground, Stews ²⁷	Pre 1627 (traditionally 14th century)	Roughly rectangular raised area. 12 m x 6 m
St Mary's Church and burial ground ²⁸	16th century or earlier (likely medieval church associated with Burwick Farm)	Existing 18th-century church building on artificial rise.
Halstead ²⁹	N/A	No visible remains present.
Our Lady's Chapel and burial ground, Halcro ³⁰	Pre 1627 (traditionally medieval; presence of lime mortar suggests 12 th century at earliest)	Visible as a trench ca. 1 m wide and 0.2 m deep with associated banks. Church walls were lime mortar-banded. Turf-covered banks mark some burial ground walls. 7 m x 5 m
Ruid Chapel and burial ground, Mucklehouse ³¹	Pre 1627 (possibly medieval)	Grass-covered foundations with an entrance at the west end of the south wall. 8 m x 4 m
St Andrew's Chapel and burial ground, Windwick ³²	Pre 1627 (likely medieval)	Grass-covered foundations. 7.5 m (E/W) x 3.5 m The burial ground wall survives to the west as a turf bank
St Colm's Chapel and burial ground, Burwick ³³	Unknown (traditionally 9th century)	A single 11 m long grassy ridge may represent the south wall.
St Peter's Chapel, Muckle Skerry ³⁴	Pre 1627 (possibly medieval)	Mound with a corner of a drystone building visible in its centre. Several further sections of wall suggest the presence of a square building. 18 m x 11 m
St Peter's Chapel, Swona ³⁵	Pre 1627 (possibly medieval)	Turf-covered mound, ca. 0.4 m high. Traces of stonework visible. 6.5 m x 4 m

Table 1: Pre-Reformation chapels and parish churches on South Ronaldsay.

While all the chapels appear to date from at least the 17th century, the majority are likely to have originated prior to the Reformation, either in the

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- 25 RCAHMS 1946, 290, No.844; Gibbon 2006, 881-3.
 26 NRHE Reference ND49SW 9; RCAHMS 1946, 290, no. 845; Hedges and Smith 1981, 26; Gibbon 2006, 884-5.
 27 NRHE Reference ND48NE 3; Gibbon 2006, 886-7.
 28 NRHE Reference ND48SW 10; Gibbon 2006, 853-5.
 29 NRHE Reference ND48SW 7; Gibbon 2006, 856.
 30 RCAHMS 1946, 282, No.811; Gibbon 2006, 857-9.
 31 RCAHMS 1946, 281, No.809; Gibbon 2006, 860-1.
 32 NRHE Reference ND48NE 4; Gibbon 2006, 862-3.
 33 NRHE Reference ND48SW 4; Gibbon 2006, 864-5.
 34 NRHE Reference ND47NE 4; Gibbon 2006, 867-8.
 35 NRHE Reference ND38NE 1; Gibbon 2006, 869-70.

years before or following the setting up of the medieval parochial system in Orkney. This 12th-century reorganisation was given impetus by the foundation of the cathedral of St Magnus in Kirkwall in 1136, when this became the focus of ecclesiastical power.³⁶

The ecclesiastical sites on South Ronaldsay largely appear to occupy virgin ground, with the major exception of St Colm's Chapel, Hoxa, where the recovery of a bone comb and hammer stone indicates a pre-existing settlement.³⁷ St Ninian's Chapel, Stews may have been associated with a Pictish settlement³⁸ while St Mary's Church was apparently built on an artificial rise and the present St Peter's Church could overlie its predecessor.³⁹ The New Statistical Account suggests that eight of the nine, then known, historic chapel sites on the island were associated with cemeteries,⁴⁰ and in Orkney there are no known examples, with the possible exception of Skail in Lady Parish, Westray⁴¹ of a Christian pre-Reformation cemetery without a chapel. It is therefore likely that all the chapels on South Ronaldsay would have had associated burial grounds at one time.

Fieldwork methodology

The archaeological works at St Ola's involved an initial survey, which sought to recover all previously eroded-out artefacts observable on the shoreline and to identify any features, structures or deposits. Excavation was undertaken of the visible skeletal remains, and of selected archaeological features and deposits identified in the initial survey (Figure 2).

The walkover and topographic surveys complemented previous work undertaken by the local Shorewatch Group and the Orkney Archaeological Trust. The former had recovered artefacts representative of the Iron Age to Medieval period, including fragments of steatite vessels and a fragment of a rotary quern.

Topographic survey of the exposed coastal section recorded a series of possible features and deposits, many of which had previously been identified by Rod McCullagh of HES. Elements of the eroding section were cleaned and areas of particular interest were examined, five of which were excavated and recorded: Sections A-E (Figure 2). The sections were located in order A, C, B, D and E from south to north, extending over a distance of over 100 m. This

36 Gibbon, 2007, 246.

37 RCAHMS 1946, 290, No.844.

38 Gibbon 2006, 886-7.

39 *ibid*, 855, 877.

40 Gerard 1841, 193.

41 Sarah Jane Gibbon pers comm; Gibbon 2006, 188-9, 229.



Figure 3: Section A near St Ola's Chapel, showing probable floor level [003] overlying the natural beach gravel [004].

meant that it was difficult to link stratigraphically across the site as features were separated by a significant distance with no linking deposit excavated.

Excavation results

A probable floor [003] of red sandstone slabs overlay the natural beach gravel [004] in Section A (Figures 2 and 3). This was sealed by silty midden material [002]. Section C included three individual midden deposits. The earliest midden deposit [105] of orange/grey silt lay under black silt midden deposit [104], which was sealed by a thin layer of windblown sand [103]. This lay under black silt midden material [102]. Section B was located adjacent to steatite find-spots. Here the natural gravel was covered by a thin layer of white clay [204], which was underneath a primary midden deposit [203] that contained animal bone. Above this was a thin layer of gravel [202] before a further, sandy silt, midden deposit [201], which contained a sub-rectangular iron mount (SF2.4) and a steatite vessel rim (SF2.2), and topsoil [200].



Figure 4: Section D at St Ola's Chapel showing human remains in a shallow grave cut.

Skeletal remains were present on the eroding beach surface to the west of the putative location of St Ola's Chapel. Section D was excavated around these human remains (Figures 2, 4 and 5) located within a grave cut [402] that was cut through either the midden deposit [401] under topsoil [400], or the underlying gravel [405]. The uppermost skeletal remains [404] had been exposed and were in very poor condition, with only the lower half of the body surviving (Figure 4). The body had been placed in a supine position on an east/west alignment; the head would have been located at the west end. Underneath this, an earlier skeletal inhumation [406], on a similar alignment, was located within a stone setting [407] (Figure 4). It was not possible to determine whether Skeleton [404] had also been placed within a stone setting. Skeleton [406] was under no immediate threat and was therefore left in situ.

Section E was excavated around two parallel linear structures formed of mortar-bonded red sandstone ashlar masonry (Figures 2 and 6). These ashlar walls were aligned approximately north-west/south-east. Although only a small fragment of the structure was exposed, and no foundations were excavated, these settings clearly formed a large wall [307] consisting of two

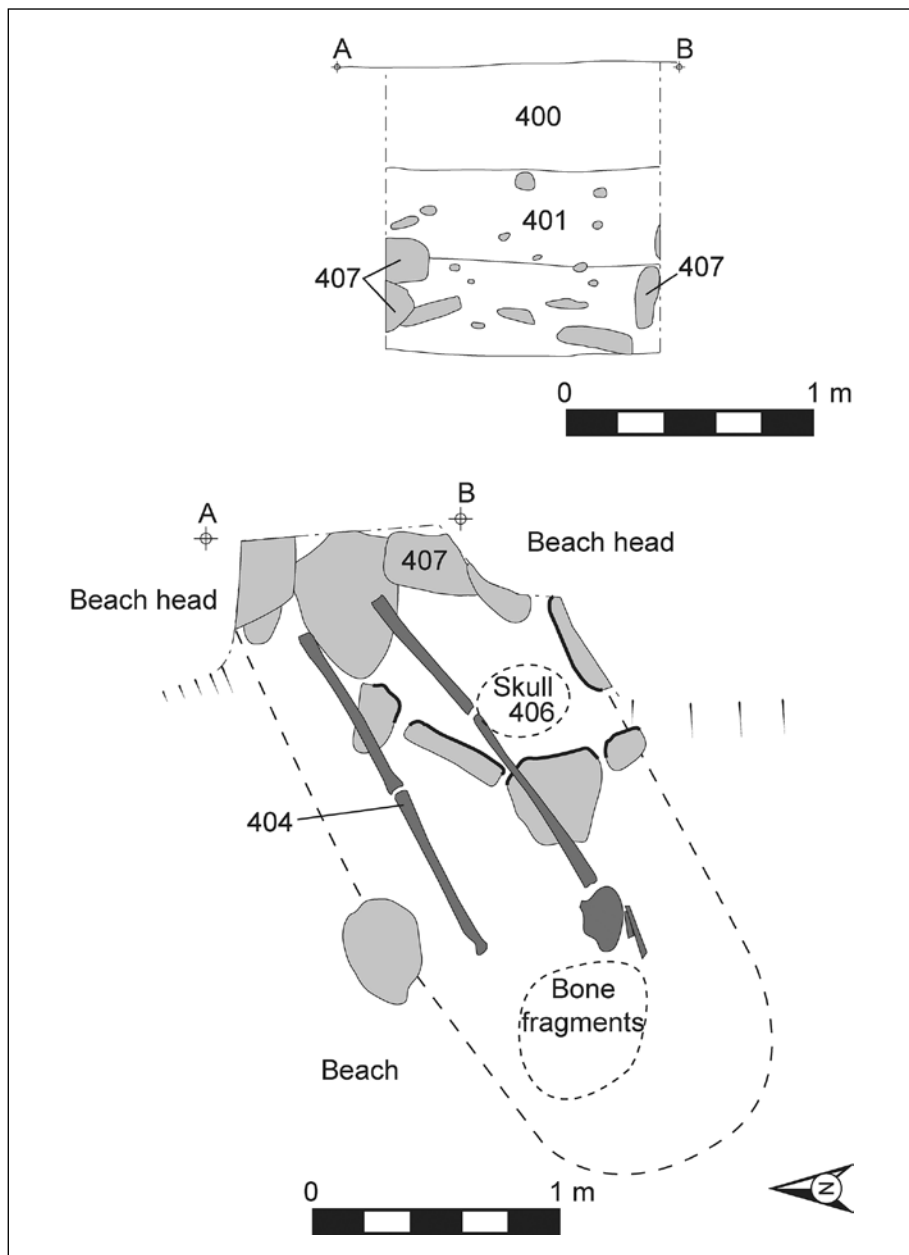


Figure 5: Plan and section (Section D) with skeletal remains.



Figure 6: Section E showing possible chapel wall [307] consisting of two sandstone wall skins infilled with beach pebbles.

ashlar wall skins infilled with rounded beach pebbles, a building technique identified in chapel sites around Orkney.⁴² The wall was up to 0.90 m in width, with a length of 0.85 m exposed; in places elements of its lime mortar bonding survived, a material also witnessed at Our Lady's Chapel, Halcro, on South Ronaldsay.⁴³ The wall was built into midden material [302] over natural beach gravel [304].

Two further features were identified beyond the five sections. A single stone with attached lime mortar containing shell inclusions [500] was identified 8 m to the north of wall [307] and may have been part of the same structure. A slightly raised area of ground [501], measuring approximately 25 m east/west by 15 m north/south was visible to the south-east of the human remains and wall [307] (Figure 2); this may be a buried structure associated with the chapel and cemetery.

42 Julie Gibson pers comm.

43 Gibbon 2006, 857.

Human remains and artefactual evidence

Small assemblages of human bone, metalwork, steatite and coarse stone were recovered during the archaeological works of 2006, and by the Shorewatch Group.

Human bone

by Melissa Melikian

Only one [404] of the two skeletal inhumations identified at St Ola's was recovered – the other [406] was left in situ. Skeleton [404] displayed moderate bone preservation and was 35% complete, having been subject to coastal erosion; it was represented by the lower torso, pelvis, legs and feet. The bones were too incomplete to facilitate calculation of stature, and represented a probable male aged 16-21 years at death. No vertebral pathology, joint disease, enthesopathies or evidence of gross pathology were present.

Metal and slag

by Dawn McLaren and Fraser Hunter,
with scientific analysis by Lore Troalen

Three objects of metal and some potential industrial residue were recovered; these are catalogued in the archive report. A flat sub-rectangular iron mount (SF2.4), probably derived from an organic object, was recovered from a midden deposit [201]. It was curved towards one end and had traces of two irregularly spaced broken projecting tangs. The curvature of the mount may be due to the shape of the object it was attached to or the result of damage. An unstratified bent rectangular copper strip (SF9) with both ends squared-off was probably post-medieval in date. A small unstratified porous lump of grey-brown vitrified material (SF5.2), which was glassy in patches, was also recovered. Such materials can be formed during any high temperature pyrotechnic process and is not necessarily indicative of deliberate industrial activity.

The steatite

by Paul Sharman

The steatite assemblage comprises 15 Norse vessel fragments (one may be prehistoric), representing a minimum number of four vessels. A full catalogue can be found within the archive report. Only one find was stratified (SF2.2, Figure 7) – this was retrieved from a midden layer [201].

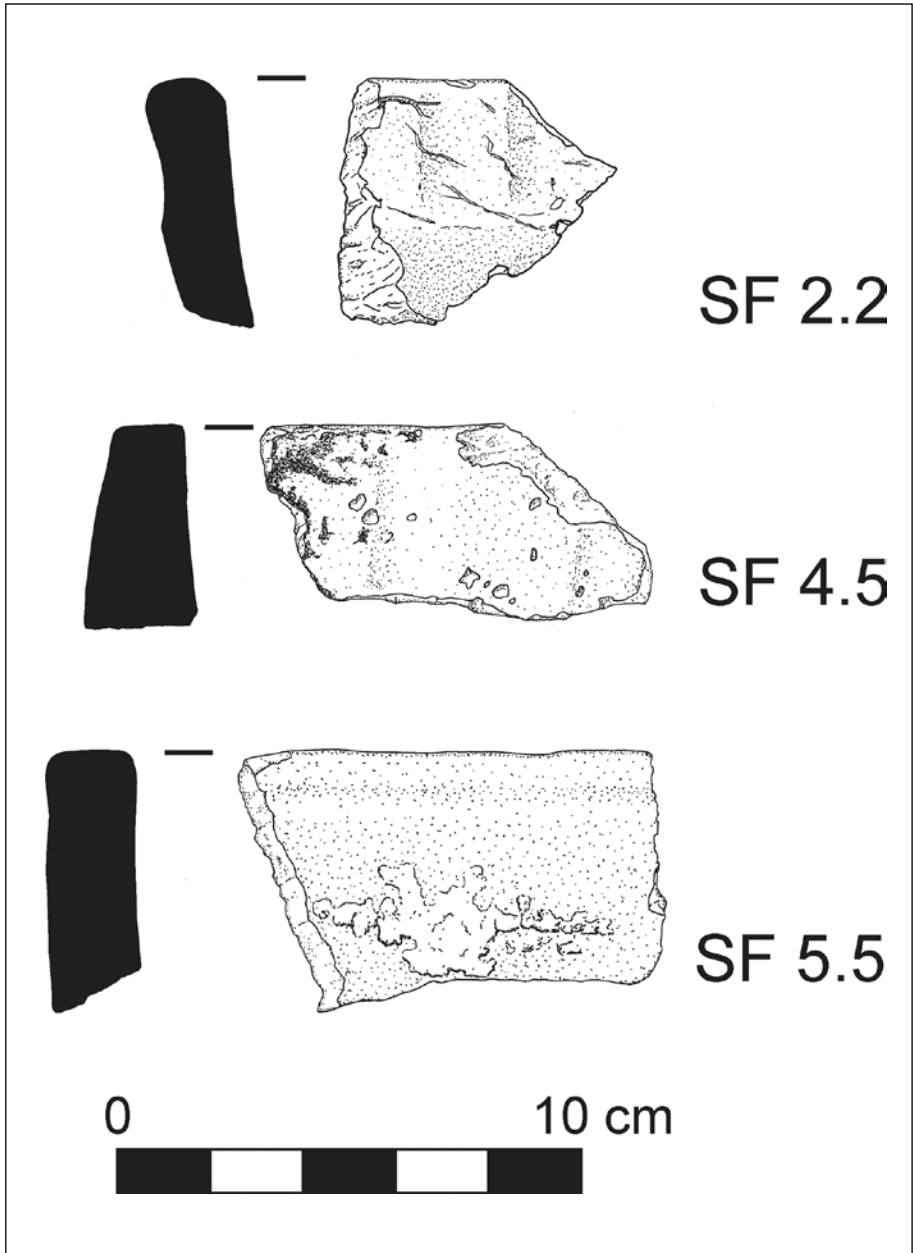


Figure 7: Steatite fragments.

The steatite used for most of the vessels could have originated in Shetland, and some (SFs 4.2, 4.7, 5.4, 6.3 and 6.5) is almost certainly derived from the Catpund outcrop at Cunningsburgh.⁴⁴ Catpund appears to have been the source of most steatite exports from Norse Shetland.⁴⁵ The stratified rim sherd, SF2.2 (Figure 7), made of grey schistose steatite, is not from Catpund, but is similar to some of the other sources in Shetland, such as the quarry at Fethaland, North Roe. However, it could also be Scandinavian in origin. A few of the fragments (SFs 1, 4.5 and 5.5, Figure 7), made from fine-grained steatite, have such consistent wall thicknesses and have been so finely finished and smoothed that they were almost certainly produced in Norway.⁴⁶

Most of the fragments bear indications of the types of tools used during their manufacture. The toolkit indicated by these marks includes items such as blades (knives, adzes and chisels), points (picks and chisels), and abrasives. Such tools, made of iron, have been found at quarries in Norway, but not in Shetland.⁴⁷ The soot and burnt accretions on most of the fragments clearly show that the vessels were used as cooking pots. Three sherds (SFs 2.2, 4.1 and 6.4) show clear signs of having been subject to more intense or prolonged heat than usual, resulting in fine cracks and the reddening of the exterior of SF6.4.

Most of the sherds had a slight curve, but not enough to determine whether the vessels were circular. Rim sherds SFs 4.5 and 5.5 (Figure 7) indicate vessels with rim diameters of approximately 370-400 mm. The flat rims and careful smoothing both inside and out are traits closest to Myrvoll Lossius' Type B hemispherical bowl, which was the most common form in Norway and has a date range from the Iron Age to the 19th century.⁴⁸ Remains of an iron attachment on the badly heat-affected SF6.4 could be an example of one of Skjølsvold's Type C handles and, if so, indicates that it is Norwegian.⁴⁹ Such iron handles were widespread in Viking Age Scandinavia, ca.800-1050.⁵⁰ However, not enough remains to be certain that the attachment was a handle rather than the remains of a repair staple, which would have bound a crack. A flat base fragment from Catpund (SF6.3) is likely to be from one of the four-sided vessel forms that were made there from the mid 10th/11th centuries to the end of the 15th century.⁵¹ The other Catpund fragments are likely to have

44 Turner 1998.

45 Forster 2005, 67.

46 Forster, 2004, 10-11.

47 Skjølsvold, A, 1979; Buttler 1989, 202.

48 Myrvoll Lossius, 1977, 22-4, 50-1 and figure 4.

49 Skjølsvold 1961, 22-3, figure 7.

50 Forster 2004, 6, figure 5.

51 Forster 2005, 63-7.

a similar, or earlier, date; vessels were produced at Catpund from the time of the Viking settlement of Shetland.⁵²

The stratified rim sherd (SF2.2) has an unusual profile with a shallow concave band around the outside immediately below the convex rim, giving it a slightly necked or collared appearance. Unfortunately, SF2.2 is from a vessel with an unidentifiable shape. As the rest of the assemblage is Norse, it could be that this fragment is too, with an individual rim treatment of the kind often omitted from typological studies.⁵³ In the study of over 3000 vessel sherds from Hedeby, tentatively dated to the 10th century, one individual rim is reasonably similar to SF2.2.⁵⁴ However, the rim profile is not outside the range of those on pre-Viking vessels from Scandinavia, dating between the late Bronze Age and the early Roman Iron Age.⁵⁵ The form also falls within the range of rim profiles of Bronze Age steatite vessels found in both domestic and funerary contexts in the Northern Isles – although in Orkney they are almost all Bronze Age funerary urns.⁵⁶

This is a typical assemblage from a Norse medieval settlement site, dating between the 11th and late 14th centuries. The presence of Norwegian vessels is indicative of the cultural sphere of Orkney at the time and may push the beginning of the site back to the Viking period in the 9th and 10th centuries, when such vessels were most common. While rim sherd SF2.2 may be Norse, it is not impossible that it is evidence of Bronze Age occupation on this site.

Coarse stone

by Rob Engl

Five unstratified coarse stone artefacts, in total, were recovered by Shorewatch in 2005 and by the works of 2006. They comprise domestic material that has either eroded out of settlement features or been deposited on the site as refuse. A probable rotary quern fragment (SF4.8) may be of Iron Age or Norse date. The site archive includes a catalogue and details of methodology.

The rotary quern fragment (SF4.8) is a small, triangular perimeter fragment, made of micaceous biotite schist. One face has been worn smooth with visible striations suggesting usewear formed by a circular movement of the artefact. The curving perimeter of the artefact has been roughly fashioned. The artefact was possibly imported from Shetland.

An unfinished perforated stone was formed from a sub-rectangular

52 *ibid.*

53 Myrvoll Lossius 1977.

54 Resi 1979, figure 9 rim 32.25.

55 Pilø 1990.

56 Sharman forthcoming.

beach cobble of metamorphic rock, with two circular drilled holes positioned on opposing faces of the cobble in a failed attempt to perforate the cobble. The holes are misaligned, a mistake during manufacture that probably led to the abandonment of the artefact. The artefact may be an unfinished line weight for fishing or a weight for holding roofing material in place.

Three heat-cracked stones included artefacts of grey gneiss and of steatite, the latter likely imported from Shetland.

Radiocarbon dating

Most deposits sampled produced too little charcoal to be dated, therefore only the human remains [404] were suitable for laboratory dating. Calibration was according to the OxCal programme and the IntCal13 calibration curve.

Site	Sample	Material	Context	Uncal	Calibrated 1 – sigma	Calibrated 2 – sigma	Delta- ¹³ C %
St Ola's Chapel, South Ronaldsay	SUERC-(GU-14487)	Unburnt Human Bone	404	455±35	1422–1454 AD	1409–1486 AD	19.2‰

Table 2: Radiocarbon dating.

The single calibrated date for the excavated bone [404] indicates that the remains were interred around the 15th century, confirming that at least part of the cemetery was in use before the Reformation. However, in Orkney, in the decades following the 12th-century parochial reforms⁵⁷ most smaller cemeteries went out of use (mostly by the 14th century at the latest) and this would be an unusually late date for a burial in a medieval proprietary chapel.⁵⁸ However, this date might not be out of the ordinary if the inhumation was associated with a communal dependent chapel of St Peter's parish, serving a community distant from the parish church.⁵⁹

Conclusions

The excavation of human remains at St Ola's Chapel has confirmed the existence of a pre-Reformation ecclesiastical site, including a burial ground and a likely chapel, on the location of earlier settlement, corroborating the traditional and documentary records of the existence of an early ecclesiastical

57 Gibbon 2007.

58 Sarah Jane Gibbon pers comm.

59 Sarah Thomas pers comm.

site there. This adds to the corpus of excavated 'early' chapel sites in Orkney that appear to overlie earlier activity.

The identification of two inhumation burials, aligned east/west, at the present site indicates the presence of a burial site dating to the period following the creation of parishes in Orkney and prior to the Reformation – the calibrated radiocarbon date obtained from one of these skeletons indicates the use of the putative cemetery in the 15th century.

The existence of a Christian cemetery would indicate the presence of a chapel – there are no known certain examples of pre-Reformation Christian cemeteries in Orkney without a chapel.⁶⁰ As Lowe has noted, 'very few of the chapels of Orkney and Shetland have either been excavated...or are sufficiently upstanding to allow precise measurements to be made'.⁶¹ Furthermore, excavations of pre-Reformation burial grounds in Orkney are rare, though several graves were recently excavated at St Thomas' Kirk, Hall of Rendall where radiocarbon dates for recovered skeletons ranged between the late 11th and early 15th centuries.⁶² In addition, GUARD excavated remains of at least 27 medieval inhumations at the previously unrecorded medieval cemetery at Skail House on the west coast of the Orkney mainland in the late 1990s. Several of the Skail House skeletons were radiocarbon dated, indicating that this cemetery was in use between the mid 11th and the late 14th centuries, associated with an unknown church, perhaps a predecessor to the post-medieval St Peter's Church, located on the north side of the Bay of Skail.⁶³ At both St Thomas' Kirk and Skail House, extended supine inhumations were, as at St Olas', oriented west/east, with the head to the west – in a form common to Christian traditions.

The presence of a chapel, of 12th century or later date, at St Ola's is supported by the recording of an element of a double-skinned lime mortar-bonded ashlar wall (Figure 6), to the immediate north of the human remains. Thacker has noted that 'apart from a very limited number of important exceptions, lime mortar is not thought to be active in Ireland generally until the 10th century, and in Atlantic Scotland not until the 11th–13th centuries'.⁶⁴ The presence of lime mortar is one of the key identifiers of medieval chapel sites in Orkney.⁶⁵ Regarding the chapel sites of Orkney and Shetland, Lowe notes that, 'the use of lime-mortar, given its association with what has been described as a Romanesque style of building...has consequently acquired a

60 Sarah Jane Gibbon pers comm.

61 Lowe 1987, ii, 124.

62 Toolis 2008.

63 James 1999.

64 Thacker 2013, 3.

65 Lowe 1998, 144, 207.

status as an indication of chronology ... [T]he use of lime mortar is usually taken to signify a post-12th-century date'.⁶⁶

At the site of the medieval Our Lady's Chapel, Halcro, in the south of South Ronaldsay, when the walls of the chapel were removed in modern times, they were found to be lime-mortared.⁶⁷ Lowe has listed numerous sites with evidence for lime mortar construction, including the chapel at the Brough of Deerness.⁶⁸ He notes the recovery of discarded impressed lime mortar in an early 12th century context at the site of the church of St Boniface, Papa Westray, and suggests that the early church, where Earl Rognvald Brusison was buried in 1046, was of mortared construction.⁶⁹ In addition, 'mortared ecclesiastical buildings of some architectural merit' existed at both Tuquoy on Westray and the earldom farm at Orphir.⁷⁰ There is circumstantial evidence that the chapel of Marykirk, at Grimeston on Harray was constructed of mortared masonry.⁷¹

The mortared ashlar wall at St Ola's was therefore constructed using a building technique observed at other medieval ecclesiastical sites in Orkney.⁷² Remains of a medieval church building with ashlar construction was encountered by Barber at St Magnus Kirk, Birsay, where excavations in advance of restoration in the early 1980s revealed remains of 'an earlier, probably twelfth century church'.⁷³ Surviving architectural details in the later church, and 'carved stones from the masonry debris' indicated that even at this early date this was a building of some architectural sophistication.⁷⁴ Raven, discussing medieval South Uist, notes the widespread change to mortared masonry buildings, noting the 'abundance of evidence...for turf, timber and wattle-and-daub churches throughout Ireland and western Scotland prior to the twelfth century, when there was a general shift to mortared masonry buildings'.⁷⁵

However, mortar and dressed masonry could be used for both secular and ecclesiastical structures – for example, neither the Norse chapel nor the castle at Cubbie Roo, Orkney are drystone, the castle being 'the oldest documented stone and lime castle in Scotland, where it appears coral (maerl) may have been burnt to produce lime for mortar'.⁷⁶ Fenton, referencing a

66 Lowe 1987, ii, 126.

67 NRHE Reference ND48NE 5.

68 Lowe 1987, ii, 126.

69 Sarah Jane Gibbon pers comm.

70 Lowe 1998, 207; Lowe 1993.

71 Lowe 1987, ii, 301.

72 Julie Gibson pers comm.

73 Barber 1982, 17.

74 *ibid.*

75 Raven 2005, 186.

76 Thacker 2013, 8.

charter of James V of between 1536 and 1537, which lists building materials on the property of James Irving of Sabay, notes that ‘lime mortar was in use... for better class stone-built houses’.⁷⁷ In addition, ashlar walls in the Orkney area tend to be reserved for formal, as opposed to vernacular, buildings,⁷⁸ and this further supports the St Ola’s wall’s interpretation as the remnant of a chapel, or perhaps a high-status secular building such as a hall house, no doubt located in close proximity to a chapel.

The presence of masonry formed by dressed facing stones surrounding a rubble core was identified at the mound known as the Castle of Snusgar, Skail. This is the most prominent of several sandy mounds of archaeological character on the Bay of Skail and was the reputed site of the Skail Hoard. Excavation across the mound by the Birsay-Skail Landscape Archaeology Project between 2004 and 2006 revealed ‘a badly eroded and robbed-out, but nonetheless impressive, series of masonry features including an east-west wall of 1.3 m width with external facings and a rubble core’.⁷⁹ These were associated with midden layers, with Norse period artefacts, mainly built-up between 900 and 1050, and Griffiths concluded that ‘there had been an extensive building complex here’ with ‘predominantly Norse-period construction activity’, though probably robbed-out in the 18th and 19th centuries.⁸⁰ This evidence, together with stone structures excavated on the nearby ‘East Mound’ between 2006 and 2010, evidence ‘at least two major mounded settlement foci...near each other in the period AD 950–1200’.⁸¹ Griffiths posits that Norse castles and ‘other significant and probably semi-fortified late Norse aristocratic residences...have significant proximate relationships with churches’,⁸² and it is tempting to speculate that if the mortar-bonded masonry wall at St Ola’s is not an element of the chapel, it might represent such an associated high-status structure. Irvine, citing Grieve’s study of Norse castles,⁸³ also notes that ‘most of these defensive sites were located close to the sea and the parish church or, if on a small island, close to a chapel’.⁸⁴ However, the wall identified at St Ola’s is clearly less substantial than the Castle of Snusgar structure, arguing against its being the remnant of a highly significant aristocratic residence. While the structure at St Ola’s cannot be conclusively dated, it therefore appears

77 Fenton 1997, 136.

78 John Barber pers comm.

79 Griffiths 2015, 222.

80 *ibid.*

81 *ibid.*, 232.

82 *ibid.*, 230.

83 Grieve 1999.

84 Irvine 2013, 40.

likely that the human remains lay outwith a building of some significance, potentially a medieval chapel.

An area of sandstone floor identified under midden deposits in the south of the surveyed area at St Ola's suggests further structural remains (whether ecclesiastical or secular), as does an area of raised ground to the south-east of the putative chapel wall. However, the possible chapel wall and this floor cannot be stratigraphically linked, or dated, and it is not possible to conclusively attribute them to the same period. Lowe has stated that 'there is little direct evidence as to how the chapels [of Orkney and Shetland] were either floored or roofed' but describes several examples of paved floors including the chancels (but not the naves) of both Tammaskirk in Rendall and the chapel on the Brough of Birsay while the chapel on the Brough of Deerness had a pebble floor succeeded by paving.⁸⁵

The only stratified steatite sherd recovered (SF2.2), which came from another area of midden deposition, could potentially indicate that the midden material recorded over the area resulted from Bronze Age occupation, though the rest of the steatite assemblage clearly indicated occupation in the Norse medieval period, perhaps as early as the 9th or 10th centuries. It is tempting therefore to view the underlying settlement evidence at St Ola's as being indicative of a Norse medieval settlement site.

However, elsewhere early ecclesiastical sites have been associated with considerably earlier settlement. Discussing the formation of medieval parishes in Orkney, Gibbon has noted that 'settlement in medieval Orkney followed the pattern of previous settlement foci',⁸⁶ citing Skaill in Deerness⁸⁷ and the Bu of Cairston in Stromness⁸⁸ among examples of medieval or later settlement located close to Iron Age settlement.

Excavations at the church of St Boniface, Papa Westray, a site threatened by coastal erosion, identified deep deposits associated with a long sequence of earlier settlement and ritual activity below the area of the medieval chapel.⁸⁹ The existing church is largely an 18th-century rebuilding of a 12th-century nave and chancel church.⁹⁰ Lowe has identified around the church a site stratigraphy spanning 'some 4000–5000 years...from the earliest times to the present day', a sequence commencing with Neolithic settlement and Bronze Age funerary and domestic activity.⁹¹ Investigation, including excavation

85 Lowe 1987, ii, 130.

86 Gibbon, 2007, 239.

87 Buteaux, 1997.

88 Grieve 1999.

89 Lowe 1998.

90 *ibid.*, 4.

91 *ibid.*, 199.

along the exposed coastal section and auger survey, has identified deep sediments associated with Late Iron Age and Norse period occupation. At St Boniface, elements of these sediments derived from occupation around an Iron Age roundhouse to the west of the church while grave digging has exposed putative Late Iron Age drystone structures south of the church⁹². Lowe has postulated that a deep deposit to the north of the graveyard and the existing church may include stone structures, which might represent ‘a focus of Norse or medieval buildings associated with the mound or...be of Late Iron Age date and indicate an otherwise unrecognized settlement’.⁹³ With regards to the site of the early church at St Boniface, he notes that ‘the early medieval church is assumed either to underlie its later successor or to have been located to one side of it, possibly in the north in the area now overlain by the “farm mound”’.⁹⁴ Lowe attests that ecclesiastical sites are frequently associated with Iron Age sites in the Northern Isles, particularly in Orkney, though St Boniface is relatively unusual as an early ecclesiastical site apparently established on the fringe of an Iron Age settlement. He argues that ecclesiastical sites were often set up directly over Iron Age settlement mounds and broch sites, citing examples such as Marykirk, Grimeston on Harray, and St Tredwell’s Chapel on Papa Westray, among others.⁹⁵

Excavation at the Brough of Birsay has revealed a complex ecclesiastical site with associated cemetery, possibly linked to relatively early (pre-Norse) Christian activity. In addition, Maldonado cites it as the ‘classic example’ of the ‘Late Iron Age presence beneath many...Norse chapel sites’,⁹⁶ with a massive Pictish stone, a bronze Celtic handbell, and Pictish-style metalworking⁹⁷. Morris has noted that a complex of buildings to the east of the 12th-century chapel could relate to the 11th-century power centre known as Sigurd’s Hall or Thorfinn’s Palace.⁹⁸ However, rather the halls of the Norse earls, this area is now thought to have been used by another wealthy Norse household⁹⁹.

Other excavations of ecclesiastical sites in Orkney have revealed complex sequences of activity. At St Magnus’ Kirk, Birsay, during restoration work on the present parish church of St Magnus, several phases of activity underlying the present church were revealed¹⁰⁰, commencing with burnt material, possibly representative of a burnt mound or cooking activity, followed by the

92 *ibid*, 188-9.

93 *ibid*, 191.

94 *ibid*, 203.

95 *ibid*, 204; Lowe 1987, ii, 300-1; Lowe 1994, 183-4.

96 Maldonado 2011, 251.

97 Morris 1996b.

98 Morris 1996a, 193-4.

99 Wickham-Jones 2015, 132-3.

100 Barber 1996, 25-31.

construction of stone foundations and wall footings, which were massive and 'best interpreted as the remains of a stone-built oratory probably stone-roofed, in the Irish tradition'¹⁰¹. A sequence has been suggested ranging from the 9th to the 12th century, with midden material being cut by lintel graves and a partially lined grave late in the 9th century, possibly associated with an undiscovered wooden oratory structure. The stone-built oratory was constructed around 900 and this unicameral building then became the chancel of a larger church building, when a nave was added between the 10th and the middle of the 12th century. This was subsequently replaced by a Romanesque-style church in the 12th century, the period when Orkney 'witnessed a substantial concentration of church building'.¹⁰²

At the Brough of Deerness, on the east coast of the Orkney mainland, the chapel and surrounding churchyard have been surveyed and excavated.¹⁰³ Morris notes that the excavation of the chapel and churchyard showed a 'clear stratigraphical sequence below the stone [chapel] building'¹⁰⁴, with a period of temporary occupation predating the chapel construction, evidenced by layers including a burnt spread and a patch of mortar. The presence of two sherds of steatite indicates this was likely to be a Viking secular occupation. Under this was a gully, dated to the late 10th century at the earliest, by the presence of an Anglo-Saxon coin of the reign of Edgar (dates), which overlay post-holes indicative of an earlier timber structure, interpreted as a probable chapel site. Other early features included infant graves and an enclosure. Morris suggests the 'timber phase chapel and enclosure may have an origin in the pre-Norse period'.¹⁰⁵ Thus at sites such as St Magnus' Kirk, Birsay and at Brough of Deerness, there is evidence for pre-Norse Christian activity on later (Norse) ecclesiastical sites.

With regards to the formation of formal parishes in Norse Orkney around the 12th century, Gibbon has noted the 'natural and organic process of founding chapels within the landscape in the eleventh century' prior to the development of a more structured administrative system.¹⁰⁶ A medieval origin for St Ola's Chapel is supported by its dedication to St Olaf, which would have occurred some decades after his canonisation following his death in 1030. Olaf was one of the most revered saints in medieval Orkney, with five dedications identified at ecclesiastical sites there; only St Mary, St Peter, St Colm/Columba, the Cross, St Nicholas, St Bride/Bridget/Brivitta have

101 *ibid*, 27.

102 *ibid*, 31.

103 Morris and Emery 1986; Morris 1996a, 190-2.

104 Morris 1996a, 191.

105 *ibid*, 191-2.

106 Gibbon, 2007, 247.

more.¹⁰⁷ The relative importance of this saint represents the significance of Orkney's Scandinavian connections in the medieval period, when it fell under Norwegian suzerainty.¹⁰⁸ However, 'the usefulness of the Orkney chapel and church dedications as indicators of date is minimal as, for the majority of sites, there is no way of knowing whether the dedications stem from the original spread of a particular Cult or from a later revival'.¹⁰⁹ Furthermore, Thomson notes that 'the Norse, as well as applying papar-names to pre-Norse church sites, also searched for appropriate early saints, who, often mistakenly, they thought might have been active in the area' and that with such dedications, their significance is not the 'real date of the saints' but the period when their 'lives were written and their cults flourished'.¹¹⁰ He also suggests that 'Norse Christians identified former ecclesiastical sites and re-built chapels at long abandoned places, they took a learned interest in legends about early missions and replaced the lost Pictish dedications with fashionable saints, particularly those who were believed to have brought Christianity northward'.¹¹¹ It is therefore not out of the question that the dedication to St Ola could obscure an earlier origin for this ecclesiastical site.

The pre-Reformation chapel of St Ola at Widewall, previously indicated by local tradition and documentary evidence, has therefore been more concretely identified through both the radiocarbon dating of burial remains, and the recording of ephemeral remains of the mortar-bonded walls of a significant structure, very possibly the chapel. The majority of the chapels in Orkney at the time of parish creation around the 12th century were located in 'larger... topographically defined [settlement] districts, which were occasionally called *urshlands*'.¹¹² Medieval chapel locations 'relate to settlements on the ground' with 'the majority of [chapel] sites with burial grounds... within 500 m of the sea and 300 m of the nearest settlement' and built on fertile ground.¹¹³ It is unsurprising, therefore, that St Ola's Chapel should be located in a coastal area, previously settled, and in proximity to the farm at Kirkhouse.

Gibbon has also suggested that the various chapels served numerous purposes: 'some serving the needs of a single estate, some serving several smaller settlements, some belonging to monastic foundations, some being funerary in purpose others pastoral and others contemplative',¹¹⁴ and that

107 Gibbon 2006, 173-4.

108 *ibid*, 174, 178.

109 *ibid*, 176.

110 Thomson 2007, 522-3.

111 *ibid*, 534-5.

112 Gibbon, 2007, 240.

113 *ibid*, 239-40.

114 *ibid*, 240.

at sites, perhaps including St Ola, an 'association between chapel and burial ground and settlement implies the sites were private chapels built by those who held the land and serving a funerary purpose'.¹¹⁵ The chapel site's location in proximity to Kirkhouse suggests that it may have been built in association with this farming settlement, 'to serve the people in the surrounding settlement area'.¹¹⁶ Chapels with burial grounds were often 'associated with one large farm and can be regarded as private chapels for the occupier of the farm and his dependents'¹¹⁷ though some 'were more centrally located in townships and may have been founded by a group of nearby farmers'.¹¹⁸ However, the 15th-century date provided through radiocarbon dating of skeletal remains could arguably support the presence of a dependent chapel of the parish of St Peter, located at a distance of some two miles from its parish church, and serving the west side of South Ronaldsay's northern parish in the later medieval period, rather than a proprietary or private chapel.¹¹⁹ As Thomas has noted, 'dependent chapels (otherwise commonly known as 'chapels-of-ease') were public chapels serving communities that were either geographically or spatially distant from their parish church'¹²⁰ and 'the principal reason for granting dependent status, and especially permission for a cemetery, was distance'.¹²¹ Thomas' study of dependent chapels in a sample of dioceses across Britain and Norway noted that 'across the five dioceses...it is unusual to find dependent chapels within one mile (1.6 km) of the parish church and those within two miles (3.2 km) tend not to have acquired privileges such as burial'¹²² but St Ola's Chapel would appear to have obtained such rights by the 15th century.

The relatively late date of the burial supports this interpretation of the chapel's status as 'dependent chapels often struggled to obtain full burial rights, primarily because the parish churches guarded their privileges fiercely'.¹²³ Thomas argues that dependent chapels tended to start with few rights (such as lacking the ability to practice baptism and/or burial) but could gain greater rights over time as 'from late medieval petitions to the papacy... we can see that a chapel often started off at the bottom of the scale [of rights] and worked its way up by seeking permission from its diocesan bishop and/or the papacy for additional rights'.¹²⁴

115 *ibid*, 239.

116 Gibbon 2006, 889.

117 *ibid*, 240-1.

118 *ibid*, 241.

119 Sarah Thomas pers comm.

120 Thomas 2018, 10.

121 *ibid*, 58.

122 *ibid*, 85.

123 *ibid*, 24.

124 *ibid*, 53.

While it appears from the existing evidence that the chapel dedicated to St Ola and its cemetery were constructed over a pre-existing site, the definitive phasing of the various structures is not possible at present because of the paucity of the stratigraphic relationships at a site which is segmented by erosion and was excavated under salvage conditions. Unfortunately, coastal erosion will continue to threaten the cemetery and putative chapel remains. Without further intrusive archaeological works at the St Ola's site, it will remain impossible to comprehend fully its nature.

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