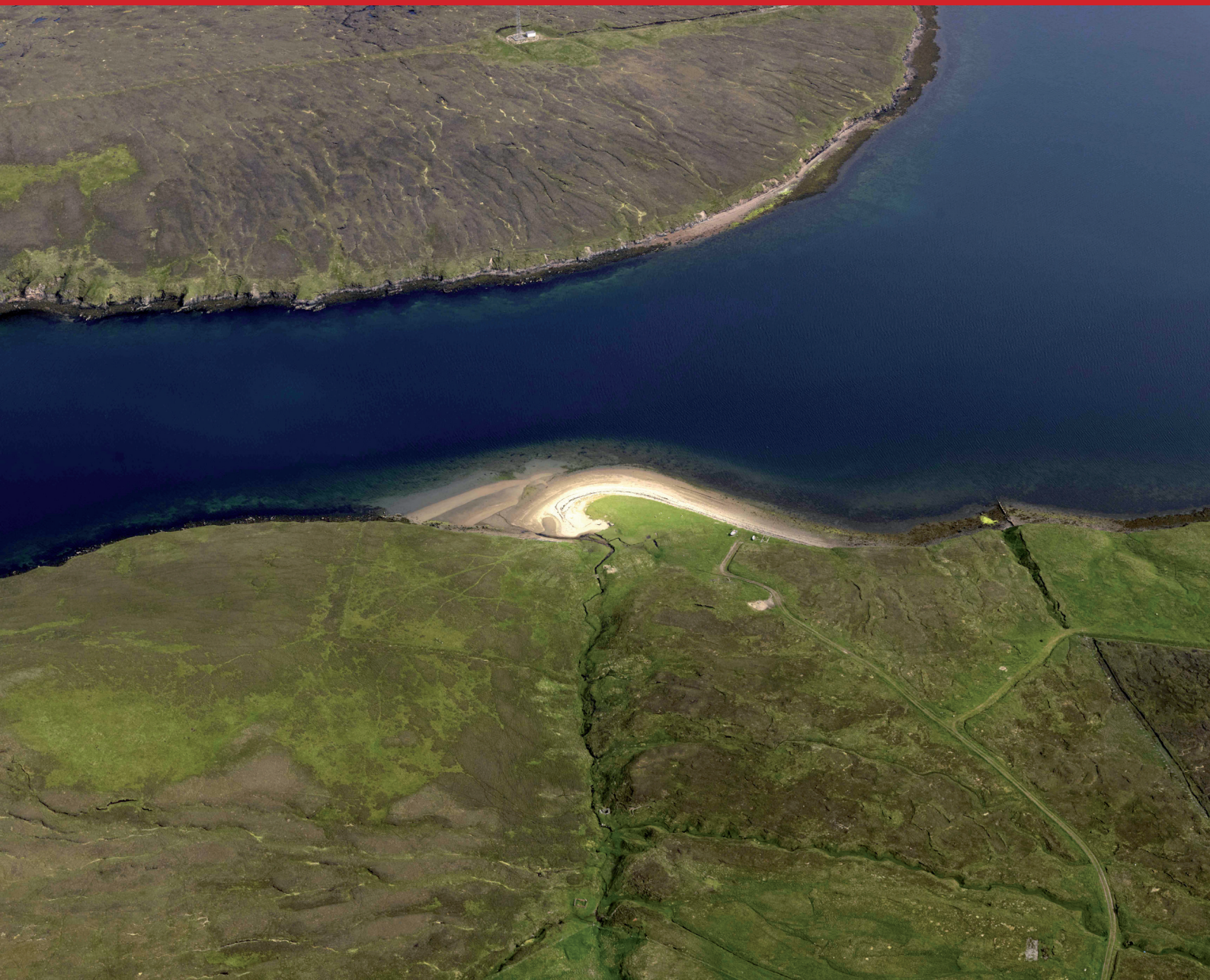


Excavation and geomagnetic survey at the Blade of Fiblister, Gluss Voe, Northmavine, Shetland

Joris Coolen, Mark Gardiner and Natascha Mehler

with a contribution by Endre Elvestad





OITIS (The Operation of International Trade in Iceland and Shetland) is a joint project between the Römisch-Germanische Kommission of the German Archaeological Institute and Queen's University Belfast to examine trade and fishing in Iceland and Shetland during the period from the 15th to early 18th centuries. This interdisciplinary study draws primarily upon evidence from archaeological and historical work.

The present report series makes available the results of field survey and investigation in advance of the synthesis and publication of the complete project. They are interim reports, contain provisional results, and are therefore subject to revision and modification.

Front cover illustration: Aerial photograph of the Blade of Fiblister, Gluss Voe, Shetland (image taken by Dave Cowley in summer 2010 after the excavation; with permission by the Royal Commission on the Ancient and Historical Monuments of Scotland, image ID DP082089).

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Summary

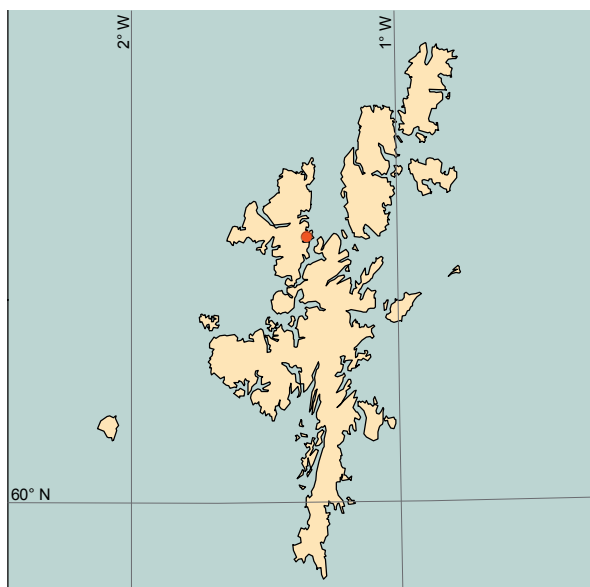
Historical sources suggest that booths were established at Fiblister in Northmavine during the sixteenth century for trade with German merchants. They may have only been used for a few decades. A possible site of the booths was identified from field survey and in June 2010 excavations were undertaken on the site of a ruined building. The finds indicate that the earthworks were from a building in use in the second half of the nineteenth century. This is identified as a farm building associated with fishing or a shop. No evidence was found for earlier activity. It remains an open question whether the site of the German *böd* was located there or elsewhere.

Introduction and aims of the investigation

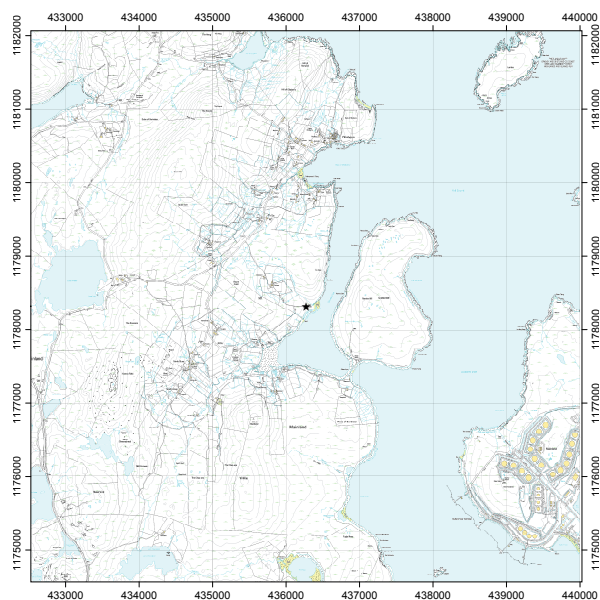
Since 2007, Mark Gardiner and Natascha Mehler have been working on a study of the archaeology and history of the trade between Hamburg and Bremen, and Shetland. This study is one element of the OITIS, a research project on the Operation of International Trade in Iceland and Shetland ca. 1400-1700. One of the main works so far has consisted of a study of the written evidence for this trade and to try to identify the historically documented trading stations in the landscape along the coasts of Shetland. In 2007, both excavated the trading station of Hamburg merchant Simon Hagerskale in Gunnister Voe (Gardiner & Mehler 2010). Hagerskale had been a business rival of Orne Mair who is reported to have been the appointed merchant of Northmavine in 1582 (see below). Orne Mair is without doubt an Anglicized version of the German name Meyer / Meier / Maier etc. Mair had a trading station at Fiblister and the aim of the project was thus to localize and identify his trading booth on the lands of that farm (see discussion below). Mark Gardiner, Natascha Mehler and Endre Elvestad investigated the area in September 2008 and in June 2009 to try to locate the remains of a possible German building which could have been assigned to Orne Mair. In 2010, a small-scale excavation took place at the site.

Location, landscape and geology

The Blade, Fiblister, is located at the western shore of Gluss Voe, at HU 36278 78317 (*Illus. 1*). Gluss Voe is a sheltered bay on the east side of Northmavine, the northern part of the Shetland mainland. It



Illus. 1 Location of the Fiblister site on Shetland Mainland. Data: © ESRI.



Illus. 2 Overview of Gluss Voe, Northmavine, Shetland. The site is located in the centre of the map and is marked by a star. Data: © Crown Copyright/database right 2010. An Ordnance Survey/EDINA supplied service.

opens out into Yell Sound, which divides mainland Shetland from the island of Yell (*Illus. 2*). Gluss Voe is separated from the larger Sullom Voe by Gluss Isle and Gluss Ayre, a tombolo connecting the isle to the mainland. The bay measures ca. 2.5km from north to south and is only about 260m wide at its narrowest point. At that point, the Burn of Fiblister, which collects the water from a drainage basin surrounding the farmstead of Fiblister, enters the bay on the western shore. Sand deposits at the mouth of the burn driven by south-westerly winds have accumulated to form a small beach, stretching from the otherwise rocky shore of the bay. The place-name of the investigated site, the Blade of Fiblister (from Old Norse *blad*), probably refers to this leaf-shaped land tongue (*Illus. 3*).¹

Surface geology around the site consists of peat and till. Bedrock outcrops are only found along the shore. According to the digital 1:50,000 scale geological map, the site is located on or near the border of two different bedrock formations, belonging to different supergroups. The hills on the west side of the bay mainly consist of metamorphic rocks (calcsilicate-rock, metavolcaniclastic igneous rocks, psammite, semipelite) of the Dalradian Queyfirth Group, while the bedrock along the shore just below the site and on Gluss Isle belongs to the younger Graven Complex of the Caledonian igneous supersuite and consists of granodiorite and appinitic diorite.

1 Personal comment Brian Smith, Shetland Archives, 21 December 2010.



Illus. 3 Aerial photograph of the Blade of Fiblister, Gluss Voe; the red rectangle marks the outlines of the ruins; with permission of the Royal Commission on the Ancient and Historical Monuments of Scotland, Image ID DP082089.

The site chosen for excavation was located on the basis of historical evidence and field survey. The investigated site lies at ca. 12m above sea level on the south side of the burn. It is marked by the ruins of a rectangular dry stone building. At the start of the excavation, the walls were visible as low, overgrown earthen banks, with some large stones protruding from the surface (*Illus. 4*). No apparent standing parts of the building had survived. The visible parts of the building formed a rectangular structure of about 9 by 4.5m, oriented SSW-NNE across the slope. The NW wall was accompanied by a slight ditch on the hillside. The southern part of the

site has been partially destroyed by the modern track leading down from the nearby farm to the beach; cultural layers were exposed in the eroded bank at the side of the track. Cultural landscape features in the surroundings of the site comprise the ruins of a possible boat shelter, in Shetland named *noost* (from Norn *nust*, deriving from an Old Norse original) (Jakobsen & Jakobsen Horsböl 1928-32) at the edge of the beach below the site (*Illus. 5*), the remnants of a horizontal mill² with an adjacent sluice a little upstream in the brook valley and several field walls and ditches. Aerial photographs reveal an old field pattern on both sides of the burn below the site, in the form of elongated, rectangular fields typical of the 18th and 19th century (see cover illustration). To the west of the excavated site on the seashore there was an unidentified structure comprising a line of large stones (*Illus. 6*).

The period of German trade: historical evidence

Written sources make reference to ‘*Dutch*’, that is German, booths ‘*in Gluss*’ and ‘*at Fiblister*’. The

² The mill was documented in the Scottish Industrial Archaeology Survey, carried out by the Royal Commission on the Ancient and Historical Monuments of Scotland. It was recorded by Graham J. Douglas on 7 October 1984 and registered as site number HU37NE 6 (Canmore ID 70635). See <http://canmore.rcahms.gov.uk/en/site/70635/manuscripts/fiblister/> (accessed January 2012).



Illus. 4 The ruins above the Blade of Fiblister in 2009, before the excavation, and the flat grassland with the sandy beach in the background.



Illus. 5 Shallow remains of one or two possible noosts on the beach just below the ruin. These remains could refer to a structure recorded on the OS map from 1881 (see *Illus 7*).



Illus. 6 Unidentified structure at the seashore made of line of large stones, maybe the remains of a *virr* (a jetty to land a boat)? See also *Illus. 10*.

problem is to determine whether these represent two separate locations at Gluss township and at Fiblister township, or the same place within the Gluss scattald (tax-paying district, from Norn *skattald*; see Jakobsen & Jakobsen Horsböl 1928-32). The key to answer this question lies with an examination of the context of references to the booths.

The German booths in Gluss are first mentioned in direction for a charter for the transfer of lands of Lord Robert Stewart to Michael Balfour, his son, made in 1589. The grant recorded the areas of ‘king’s land’ in *merks* (a rent- and tax-paying measure of land), and also a measure for the sale of land. The grant included *inter alia* 2½ merks in Fiblister and 10 merks in Gluss and a further 3 merks in Gluss. The charter concludes that the sasine, or formal transfer of land, was to be taken ‘at that part of the 10 merks of land of Gluss called the Dutch booths in Gluss’.³

The booths at Fiblister are recorded in a sasine of 1626 when Bessie Laing, widow of Thomas Tulloch of Fiblister transferred her interest in 7½ merks of land and in 2½ merks of king’s land, together with the Dutch booths situated on a ‘pendicle’ (or an appurtenance) to the land.⁴ The 7½ merks of land were evidently largely the same as the 8 merks of land which Thomas had transferred in 1605 to Robert Sinclair and Isabel Tulloch, his daughter. The lands seem to have come back into Thomas’ hands by 1610 when he granted ½ merk to Gilbert Mowat, so that his widow 1626 had an interest in the 7½ merks remaining.⁵

The 1716 rental compiled by Thomas Gifford of Busta records that there were 30 merks of land at Gluss township and 10 merks at Fiblister, and we can assume that these assessments were ancient

in measure.⁶ The 10 merks of Gluss, the site of the booths mentioned in 1589, cannot be the same as the 10 merks at Fiblister for two reasons. First, the 1589 charter distinguishes between the 2½ merks of land explicitly said to be in Fiblister and the 10 merks at Gluss. Second, the 1589 grant was said to be king’s land, and we have seen that the land at Fiblister was made up of 2½ merks king’s land and the remainder held by Thomas Tulloch.

This rehearsal of the historical evidence allows us to conclude that by 1589 German merchants had booths in Gluss township on the arable land there, and that by 1626 there were also booths at Fiblister township, though on an adjoining part. However, the sources allow us to go a little further. In 1577 the inhabitants of Shetland listed their complaints against Lord Robert Stewart, and said that his agents were insisting on the use of false measures to weigh butter. David Tulloch the lawrightman of Northmavine parish was not permitted to use his scales at the ‘Dutchmen’s’ booth at Gluss. This was part of a wider attempt to control and to manipulate the overseas trade in favour of Lord Robert. It was alleged further that Robert came with his company three or four times a year and took beer at the houses of Andrew Robertson (of Fiblister) and John Robertson (of Nissetter in Gluss scattald), Magnus at Gluss and Laurence at Gluss.⁷

Gluss Voe emerges from this as a centre of trade for the north of mainland Shetland around 1600. The port, however, may never have been large even though there were booths at two separate places on the Voe. In 1602 Orne Mair, a German merchant complained that he had long served the community of Northmavine, together with his fellow merchant Harry Skope, an Englishman, and supplied it with

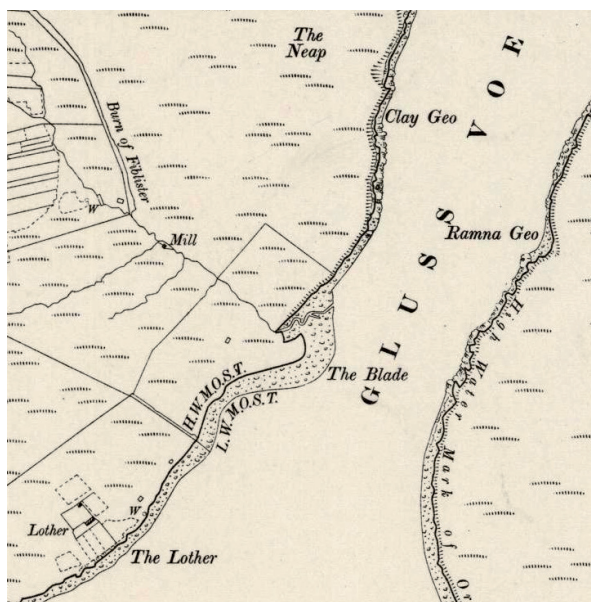
3 Shetland Documents 1580-1611, no. 156.

4 Shetland Archives, GD144/67/10; National Archives of Scotland, RS44/2, ff. 74v.-75.

5 Shetland Documents 1580-1611, no. 497.

6 National Archives of Scotland, RH9/15/176.

7 Shetland Documents 1580-1611, no. 237 (pp. 196, 199).



Illus. 9 Detail of the OS six-inch map, Zetland sheet XXV, surveyed 1900 and published 1902. The farm at the Blade of Fibilister is not shown anymore.

have measured ca. 8 by 2.5 m. Behind the house to the west lay an enclosed rectangular yard, most likely used as stackyard and for growing kale (plot no. 1037) of about 20 by 20m, and it included two small rectangular structures of ca. 2 by 2.5m at both the south-west and south-east corners. Since the structure on the south-east corner is only marked as an outline, it may not have been roofed. A small black rectangle about 30m to the south-west of the yard probably represents another small building, possibly a lambhouse or sty. A footpath led down from the northern part of the house to a *noost* at the shore. Both the footpath and the remnants of the *noost* can still be seen today (see *Illus. 5*). While the land surrounding the house and the yard are marked as rough pasture (parcel 1036), the area below the house (parcel 1038) seems to have been used as improved pasture. To the south of the house, a rectangular and a square field were enclosed by field boundaries. The farm land on both sides of the burn was also surrounded by a dyke, which can still be traced.

This dyke which enclosed the land belonging to the Blade, is still marked on the 1902 OS County Series (1:10,560), surveyed in 1900 (*Illus. 9*). However, the farm seems to have been abandoned by this time. The building is marked by a small rectangle only, which corresponds to the northern half of the building still visible today; the narrower part to the south has disappeared. Neither the yard nor any other features connected to the farm are marked on the map. Moreover, the name of the Blade is now clearly associated with the land tongue instead of the farm. Hence, the farm seems to have

been abandoned between ca. 1880 and 1900. The northern part of the land formerly belonging to the Blade, on the north side of the burn, continued to be used after the farm was abandoned. On the 1931-35 Land Utilisation Survey (1:63,360) it is marked as (green) pasture, while the surrounding area is depicted as moorland.

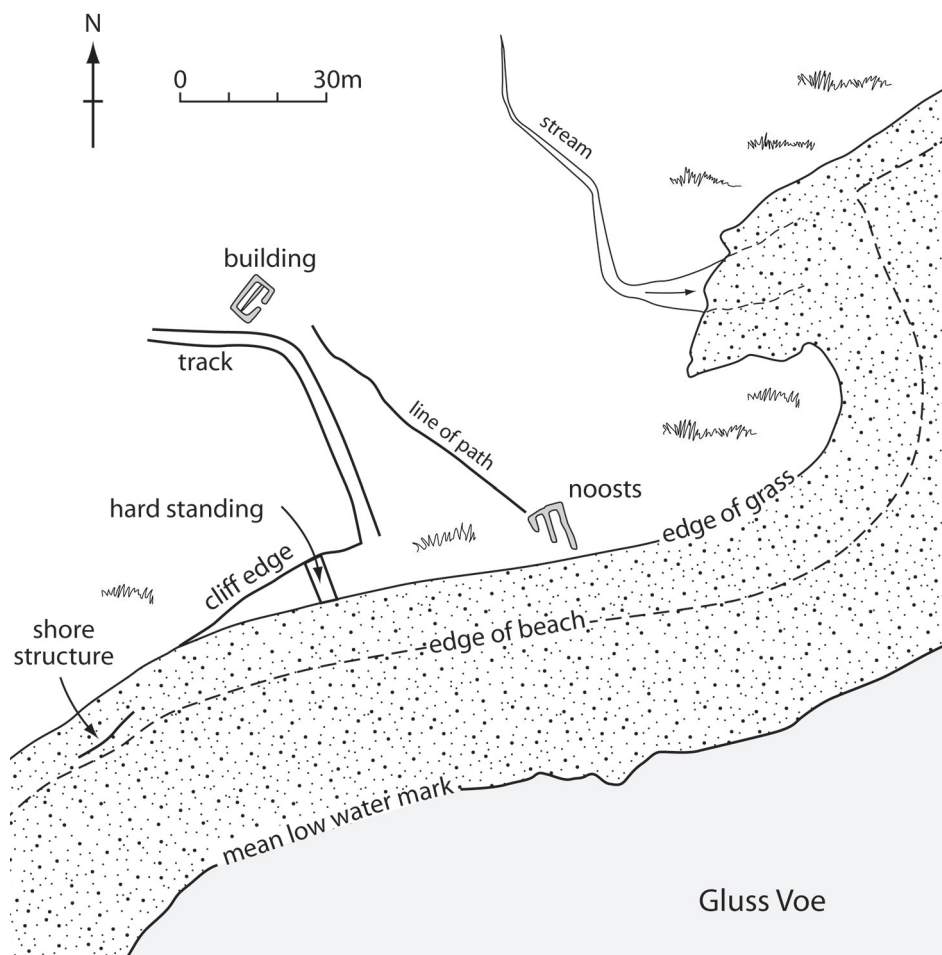
By the 1970s, this had also been abandoned. The 1971 OS map (1:2,500) only shows the outline of the ruined building, surrounded by moorland. All other features connected to the farm, including the dyke surrounding the former land property, have now disappeared from the map. However, it shows a track leading down from the hamlet Fibilister to the shore, which is not shown on any of the earlier maps. The track does not yet cross the site, but takes a sharp turn away from it a little higher up the hill. Apparently, the course of the track was only changed to cross the site later on. The latest edition of the OS Explorer Map (1:25,000), published 2007, shows the current track, which runs past (or rather across) the ruin of the Blade of Fibilister.

Excavation

After a survey of the site (*Illus. 10*) the building was divided into four equal quadrants from the centre of its visible outline and two of these – the south-west and north-east – were completely excavated (*Illus. 11*). Both trenches were extended along the NW-SE axis to provide a cross section extending over the walls on both sides, and to investigate the ditch on the hillside and an alleged parallel wall to the east of the building respectively. Given the small scale of the excavation and the shallow depth of the investigated features, the excavation trenches were entirely dug by hand, using mattocks and trowels. A total station was used for the survey of the excavation and the surroundings of the site. Levels were also taken with the total station. The excavation plans were drawn manually on scale 1:20, the cross section on scale 1:10.

NE quadrant

The NE quadrant initially measured 3.6m by 2m and covered the NE part of the building (*Illus. 12-15*). The NE and SE sides of the trench were defined by the outer walls (33 and 32 respectively). At the SE corner of the quadrant, the outer (SE) wall showed a gap, flanked by a large stone in the east. This was apparently the entrance to the building. The NW and SW sides of the quadrant were defined by the length and width axes of the building. A line of stones, which ran along the length axis, was first assumed as an inner wall, dividing the building lengthwise in two halves. However, this assumption was altered during



Illus. 10 Survey of the site with ruins and features, prior to excavation.

the excavation, since the stones were not bonded and formed a rather loose, irregular alignment. Therefore, they were interpreted as tumble rather than the remnants of a wall. An L-shaped extension, measuring 3.7 by 0.9–1.9m was dug from the SE corner of the quadrant across the entrance.

Below the topsoil layer (7), a sandy layer of tumble (8) was recovered, which contained 19th-century finds. This sandy fill covered a floor of water-rounded stones (12), which were obviously taken from a different source than the angular stones used for the walls. The floor sloped slightly to the east and appeared to have been robbed at the entrance. The stone floor was laid out on a layer of dark brown clay (13), which in turn covered an L-shaped, wood-lined drain (fill: 15, 28; interface 27) (Illus. 16). The drain ran across the room in NW-SE direction and turned towards the entrance in front of the SE-wall. Here, it drained into a (natural?) depression, which was filled with looser, iron-enriched material and covered with flat capstones. The fill of the drain contained wood, pottery and glass fragments, one iron nail and a piece of textile. The drain cut an older floor of very hard, red-brown-yellow, redeposited, natural soil of about 2 cm thick (29), which had been laid out on the natural soil. The floor was only partially excavated.

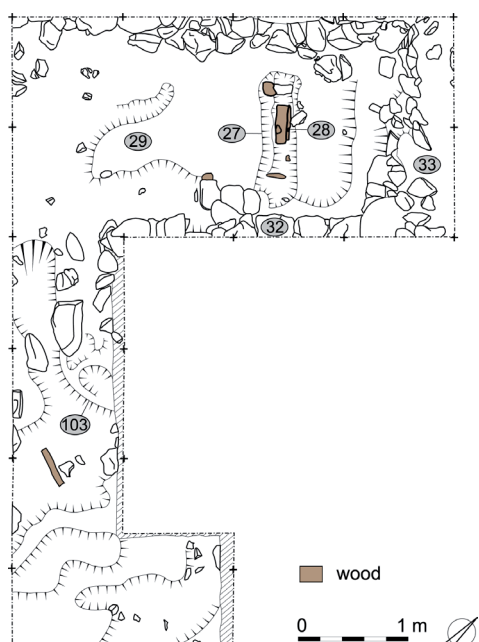
In the NE quadrant extension, the topsoil (7) came off onto a layer of mixed soil and tumble (10), which corresponds to context 8 on the inside of the building. The stones within this layer were initially identified as different contexts (16 and 17), but later appeared to be part of the same layer. It contained several small finds. In the SE corner of the extension, the tumble layer included a triangular patch of grey-yellowish, redeposited natural soil (14). The rubble filled up an irregularly shaped drain running away downhill from the entrance (103).



Illus. 11 The site during excavation.



Illus. 12 Plan of the first documentation level, showing the two excavated quadrants with extensions and the surface features in the two other quadrants (shown in grey). Drawing by L. Poole, digitisation and layout by J. Coolen.

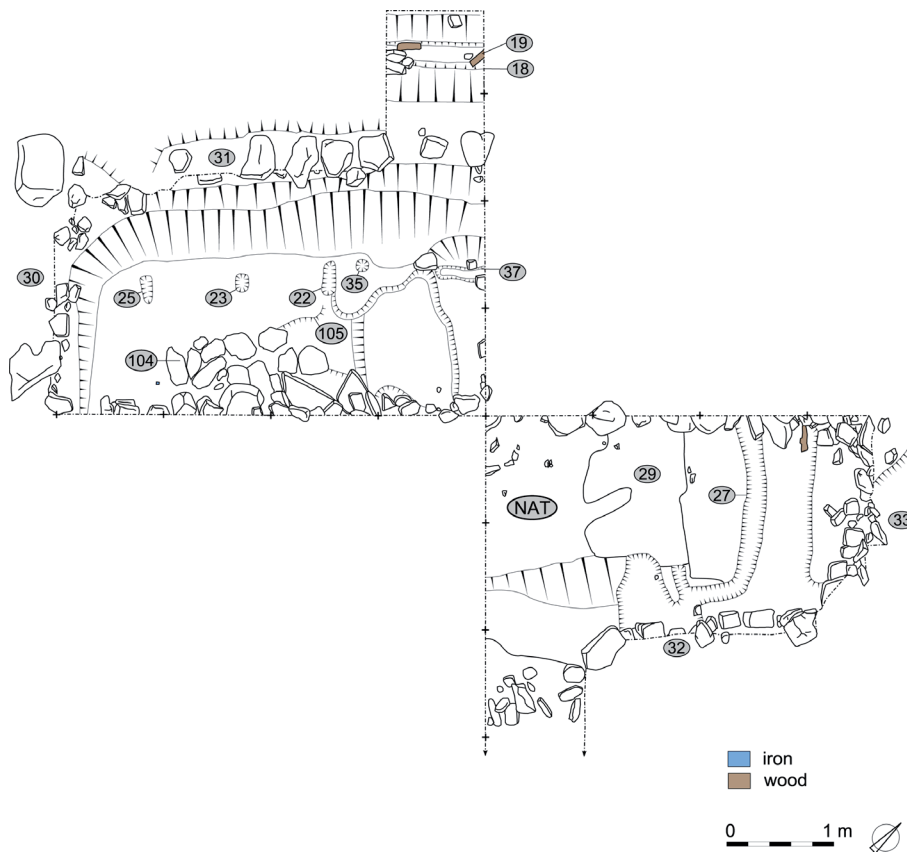


Illus. 13 Plan of the second documentation level of the NE quadrant. Drawing by L. Poole, digitisation and layout by J. Coolen.

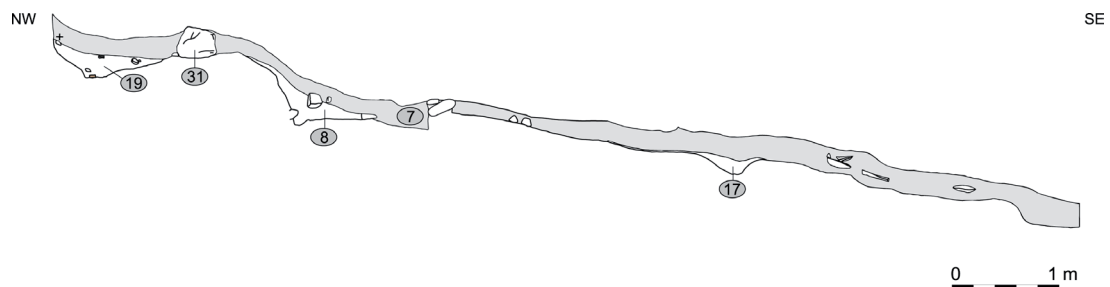
Both the SE and the NE-wall (32 and 33 respectively) of the building were erected on undisturbed, natural soil. They were constructed using sub-angular field stones and possibly soil as bonding material. The stones on the wall faces were roughly coursed and roughly faced. The NE wall (33) was notably wider than the other walls; whereas the latter were only 50-60cm thick, the former was about 1.2m wide at the base. Therefore, it seems likely that it contained a chimney. Indeed, a slight cut in the wall was noted on the central axis of the building, but this was not excavated.

SW quadrant

The SW quadrant measured 4 by 2.5m and was delimited by the north- and southwest walls and the central axes of the building (see *Illus. 12-15*). It sloped steeply to the northwest, on which side the building platform had been dug into the hill. On this side, the quadrant was extended by a 0.9m wide and 1.5m long trench on the quadrant's NW corner across the ditch on the hillside of the building.



Illus. 14 Plan of the third documentation level, showing both quadrants with extensions at the end of the excavation. Drawing by L. Poole, digitisation and layout by J. Coolen.



Illus. 15 Cross section of the NW-SE axis of the excavation. Drawing by L. Poole, digitisation and layout by J. Coolen

As in the NE-quadrant, the topsoil layer (7) came off onto a sandy layer of tumble (8), which yielded some 19th-century finds. It was removed together with the underlying harder layer (9), which covered the northern half of the quadrant. The distinction between contexts (8) and (9) was rather unclear. Only in a small patch in the north end of the quadrant, (8) came off onto a thin, well-defined layer of dark-brown clay with charcoal fragments, which directly overlay natural soil.

In the other parts of the quadrant, the tumble layer covered a hard silty deposit (20), which was evidently produced by frost-shattering of the sides. This inwash layer came off onto a number of slabs covering a drain at the base of the quadrant (104) and a thicker layer of blue-grey silt (21) in the west. The

latter contained numerous finds, including a barrel stave and pottery. Its lower edge was marked by a thin, iron-enriched line. The stratigraphic relation between this layer and the drain was not evident. Due to restricted time, the latter was not excavated. The blue-grey silt layer covered the original floor level. However, apart from the flagstones covering the drain, there was no paved floor or other evident floor layer in this quadrant. Thus, the clearance of the building platform also provided the floor in this part of the building. After the removal of the blue-grey silt layer, a series of four postholes were noted parallel to the NW wall. Three of them (cuts 22, 23, 25; fills 24, 26, 36) had an oval or rather rectangular shape and were spaced 90 cm apart, while the smaller posthole to the north (interface 35; fill 101)



Illus. 16 Detail of woodlined drain (28) below the stone floor (12).



Illus. 17 SW quadrant looking SW: flagstones covering the drain (104) and postholes (interfaces 22, 23, 25, 35; fills 24, 26, 36, 101).

was set slightly out of line and at 30 cm from the next posthole. The latter marked a step in the floor level (*Illus. 17*).

At the northern side of the quadrant, there was a small slot (37), which also ran parallel to the wall. It was aligned with the row of postholes and continued in the unexcavated, north-western part of the building. The start of the slot coincided with another step in the floor level, about 90 cm from the first step. Both the SW and NW wall were erected on a ridge of uncut, natural subsoil. They

were 50-60 cm wide and constructed in a similar way to the SE and NE walls. However, the stones at the outer face of the SW wall were laid at right angles to the wall, while the inner face may have consisted of smaller stones, which subsequently fell in. The ditch (18) at the west of the building was obviously designed to channel water from the uphill side away and along the sides of the building. It was about 1m wide and 35cm deep and had a single peaty fill similar to topsoil (19).

The finds

The excavations at the Blade of Fiblister yielded the total amount of 493 finds (*table 1*). All diagnostic finds can be dated to the 19th century. In fact, some finds point to the second half of the 19th century. The decorated whiteware vessels can be dated to ca. 1835-1870 while the datable clay pipe fragments were produced between ca. 1847-1920. We know that the site fell out of use between 1891 and 1900. The finds assemblage thus contains some older finds, like the whitewares which might either point towards an older generation occupying the house, or simply old artefacts which were retained in use. The excavation has not yielded evidence for a medieval or earlier post-medieval occupation of the site. Furthermore, the finds are everyday artefacts without any luxury objects.

Among the finds, pottery fragments constitute the largest group (248 pieces), followed by fragments of glass bottles or vessels (162 pieces). Most finds were recovered from the upper tumble layers (contexts 8-10). The floor layers (12) and (13) only revealed one iron nail and no datable artefacts. Context (21), the primary deposit over the floor at the SW end of the building, yielded the fragment of a leather shoe (find no. 41), two undiagnostic wooden objects (find no. 42), fragments of one or two whiteware bowls with cut sponge decoration which can be dated to ca. 1840-1870 (find nos. 6, 40) and a stave of a oak barrel (for discussion see below).

It is interesting to note that the ceramics and glass vessels of the finds assemblage consist of tablewares and one large storage jar only (cup, bowls,

Context	Pottery	Glass (vessel)	Iron	Clay pipe	Wood	Other	Sum
2			1			slag?	1
8	12	29	4	3		1 fragm. of spectacles; 1 piece of plastic?	50
9	52	17	8	8		1 (bird?) bone; 1 fragm. of window pane	85
10	28	24	10	1		1 fragm. of spectacles	64
11	1						1
12		2					2
13	38		2				40
15	2	3	1		2	1 glass button; 1 glass inlay; 1 textile fragm., 1 glass bead, 1 textile fragment	13
16	5	6					11
17	12	2	2			1 fish bone	17
19	1						1
21	13	2	1		5	3 fragm. of leather shoe, 1 slate pencil fragment	27
34	3			1			4
clearance	81	77	11	1		2 brick fragments, 1 lead net sinker, 1 metal spoon, 3 plastic fragments	177
Sum	248	162	40	14	7	22	493

Table 1 Overview of the recovered finds per category and context.

tea pots, plate) and no cooking vessels have been found. The vessels are ordinary tableware which most likely all originate in Scotland or England, and no luxury goods were discovered.

Pottery

The largest group of finds consists of 248 pottery fragments which belong to redwares or other earthenwares and some whiteware vessels with sponge or painted decoration. All diagnostic potteries are of English or Scottish origin. Context (8) yielded several fragments of at least two whiteware bowls with cut sponge decoration (find nos. 6, 10 and 40), a ware type very popular between ca. 1840 to 1870 (*Illus. 18 and 19*). The dark blue sponge decoration sits on a yellow to brownish paint. This find numbers also include fragments of a large storage jar of red-brownish fabric with dark brown glaze on both sides. A matching fragment from the same jar was recovered from context (9) (find no. 14). Of the excavated contexts, this layer yielded most pottery fragments.

Three fragments of an open sponge decorated whiteware cup (find no. 14) which is slightly younger than the older cut sponge decoration were found in context (8) (*Illus. 20*). A small whiteware plate is decorated with sprig paint which was common between ca. 1835 and 1870 (*Illus. 21*). Remains of a relatively coarse, buff-bodied and dark brown glazed tea pot (find no. 27) of a type common in the second half of the 19th century were found in context (9) (*Illus. 22*). The glaze is similar to that of a large storage vessel of which more than 41 fragments (redware with dark brown glaze on both sides) were found in contexts 13 and 17 (*Illus. 23*).

Clay pipes

In total, 14 clay pipe fragments were found (find nos. 4, 11, 18, 24, 57, 59, 60, 81) some of which provide very valuable dating information, all made in the second part of the 19th century. With the exception of find no. 59, an undateable stem fragment which was found in context 34, all other pipe fragments were found in the upper tumble layers (contexts 8-9). One fragment with parts of the bowl and stem



Illus. 18 Several fragments of a cut sponge decorated whiteware bowl from context (9) (find no. 10), c. 1840-1870. The floral ornamentation of the sponge is blue, the background yellow.



Illus. 19 Several fragments of a cut sponge decorated whiteware bowl from context (21), the primary deposit above the floor at the SW end (find no. 6), c. 1840-1870. The floral ornamentation of the sponge is blue, the background yellow.



Illus. 20 Three fragments of a whiteware cup with open sponge decoration from context (8) (find no. 14), second half of 19th century; below five fragments of a lead glazed redware vessel.



Illus. 21 Seven fragments of a tea pot with a coarse buff body and dark brown glaze, second half of 19th century, found in context (9) (find no. 34) and probably the same vessel as find no. 27; below six fragments of a whiteware plate with sprig painted decoration common between c. 1835 and 1870.



Illus. 22 17 fragments of a tea pot with a coarse buff body and dark brown glaze, second half of 19th century, found in context (9) (find no. 27).

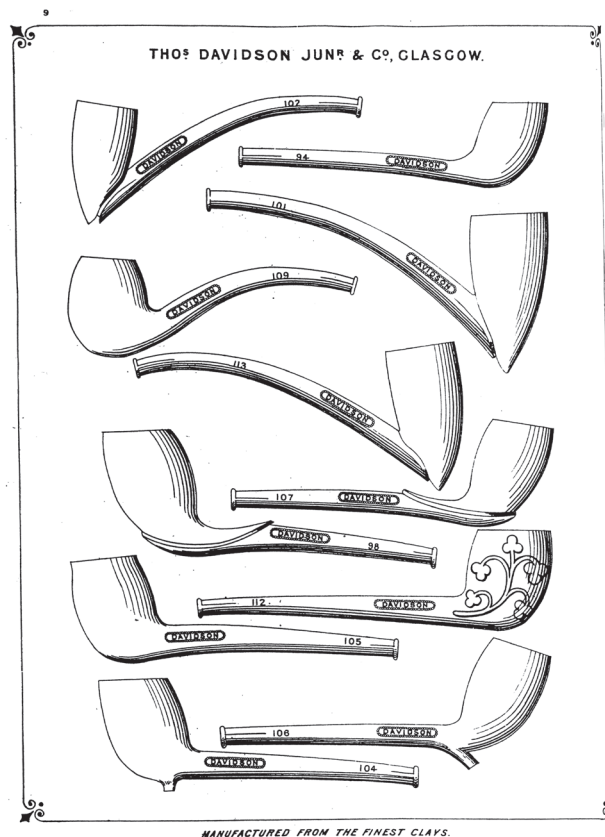


Illus. 23 Rim fragment of a large storage vessel (redware with dark brown glaze on both sides) with a horizontal handle (find no. 62).



Illus. 24 Clay pipe fragment (bowl and stem) (find no. 4) from context (9); the pipe is of the Gladstone type produced between c. 1870 and 1920 in Britain (see *Illus 25*).

Illus. 25 Gladstone pipes in the catalogue of manufacturer Thomas Davidson, Glasgow, from c. 1880. Nos. 107 and 98 display the one found at Fiblistier; from Gallagher & Price 1987, 124.



Illus. 26 Stem fragment with inscription ILSO(N)(M)AKE, product of Edinburgh pipe maker Peter Wilson (1847-1902) (find no. 81).

has an incised line on both sides of the stem and shows traces of heavy use (find no. 4). The pipe is of the so-called Gladstone type which was produced from around 1870 to at least 1920 in several parts of Britain. This type was very popular in Scotland and the fragment found at Fiblistier may well come from a Scottish manufacturer (*Illus. 24 and 25*) (Gallagher & Price 1987, 124). A stem fragment (find no. 81) shows the horizontal inscription ILSO(N)(M)AKE which distinguishes the piece as a product of Edinburgh pipemaker Peter Wilson which operated from 1847 to 1902 (*Illus. 26*) (Davey 1987, 350).

A rather well preserved pipe (find no. 60) with a complete bowl, spur and parts of the stem shows the double letter mark TW on the front side of the bowl (*Illus. 27*). This mark was widely in use



Illus. 27 Pipe bowl with double letter mark TW, second half of 19th century (find no. 60).

in Scotland and indicates a pipe design rather than an actual pipe maker. This pipe too can be dated to the second half of the 19th century. It resembles products by Glasgow pipe maker Duncan McDougall whose company operated from 1846 to 1967 (Gallagher 1987, 104; fig. 14 no. 10; fig. 22 no. 61).

Glass

In total, 162 fragments of glass vessels were found, which belonged to various vessels of different size and colour. Most of them were bottles of blue and green glass, including several small, square shaped medical bottles (*Illus. 28*). All fragments show air inclusions. Fragments of clear glass with moulded decoration were recovered from contexts (8) and (16). *Illus. 29* shows the neck and rim of a dark green

cylindrical beer bottle. This kind of rim was in use from ca. 1830 onwards and before improved closures like the lightning stopper and the crown cap were invented in the early 1870s. The same find number contains also two fragments of a light blue small mouth blown medicine bottle with a prescription lip which can be dated to the late 19th century and onwards (find no. 8) (Wicks 2003, 8). The glass finds also included a complete 19th-century ink bottle with a cork stopper in situ (found in the clearance) (find no. 49) (*Illus. 30*), a pair (?) of spectacles which was discovered separately in contexts 8 (find no.12) (*Illus. 31*) and 10 (find no. 44), a window pane fragment from context 9 as well as a complete dark green glass button with faceted rim (find no. 37), a turquoise, oval glass inlay from context 15 (find no. 39) (*Illus. 32*) and a small black glass bead from the same context (find no. 75) (*Illus. 33*).

Metal

Forty of the 43 metal finds are made of iron; most of them are heavily corroded bolts or nails, which were probably part of the construction, since they were mainly found in the upper layers connected to the disintegration of the building. Iron fixtures became common in Shetland room timbers in the

19th century (pers. comm. Ian Tait). Apart from these, the metal finds include four fragments with enamel decoration, possibly from a pot, from context 10 (find no. 43) and a chisel from context 9 (find no. 28), a sickle (find no. 65) (*Illus. 34*), a complete metal teaspoon of 19th-century date from the clearance (find no. 53) and a complete leaden line sinker from the same context (find no. 64) (*Illus. 35-36*). Leaden line sinkers were in use from the 18th century onwards.

Wood

Seven pieces of wood were discovered in the lower layers. Although none of them can be clearly identified, six seem to be construction parts. One fragment from context 15 has an iron nail attached to it, and was probably part of the wooden lining of the drain below the floor in the NE part of the house. Due to the moist soil, the wooden lining of the drain had been partially preserved. One of the wooden fragments from context 21 also shows traces of corroded iron, and may in fact have been painted (find no. 42). The wood species was not analysed. One complete bucket stave fragment of oak was found in context 21 (find no. 66), the primary deposit over the floor.



Illus. 28 Selection of glass fragments from context (10) (find no. 45).



Illus. 30 Complete ink bottle from clearance (find no. 49).



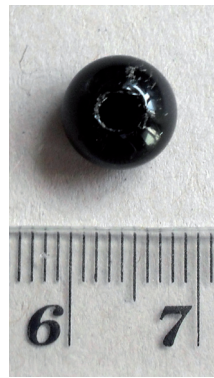
Illus. 29 Fragments of a dark green beer bottle, dating c. 1830-1870, and a light blue medicine bottle from the late 19th-century (find no. 8).



Illus. 31 Spectacle lens from context (8) (find no. 12).



Illus. 32 Turquoise oval glass inlay from context (15) (find no. 39).



Illus. 33 Small black glass bead (find no. 75).



Illus. 34 Part of a sickle with preserved iron blade and wooden handle (find no. 65).



Illus. 35 Complete line sinker of lead (find no. 64).



Illus. 36 Complete metal tea spoon (find no. 53).

Other finds

Other finds include a textile fragment from context 15 (find no. 36) and a leather shoe heel, made from four layers of leather connected with brass tacks which is indicative of later 19th-century date (context 21, find no. 41). The excavation yielded only one bone fragment, probably of a bird, which was found in context 9 (find no. 20). The upper tumble layer (context 8) also included a piece of plastic (find no. 15).

Geomagnetic Survey

The geophysical survey was carried out on June 11th 2010 by Joris Coolen MA and Dr. Mathias Hensch, after the excavation had been taken place in the preceeding May. The aim of the survey was to see if there were any other buried archaeological features in the surroundings of the excavated building, which might possibly be connected to an older building phase.

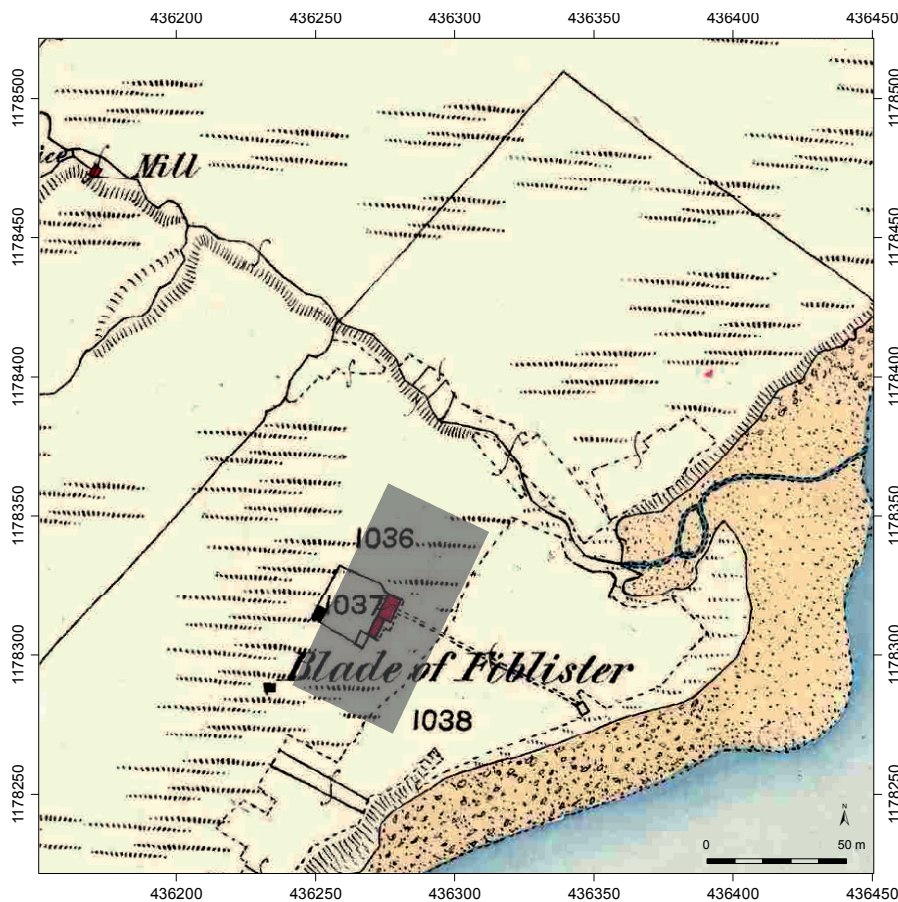
Methodology

Magnetometry measures the strength and direction of the local magnetic field; since human activities often lead to an increase in magnetic substance, archaeological features often cause local anomalies in the earth magnetic field. While resistivity and Ground Penetrating Radar (GPR) are mainly used to detect walls and other features that show a high structural contrast with the surrounding

soil, magnetometry can also be used to detect pits, ditches, fireplaces etc. The magnetometer can be mounted on a cart or carried by hand, and can thus also be used in rugged terrain as in Fiblister.

The survey area measured 3180m² (80 by 39.75m) and was centred upon the excavated house plan (*Illus. 37*). The survey area was divided in two 40 by 39.75m grids. The grids were staked out manually from the centre of the excavated house, so that it could easily be tied to the local survey grid, which was set up during the excavation, afterwards. However, given the problems that arose from manually staking out with measuring tapes in an uneven landscape, and the fact that the excavation grid itself had no exact coordinates, the survey grid has an estimated absolute accuracy of $\pm 1.5\text{m}$.

The survey was carried out with a multisensor fluxgate gradiometer system produced by Sensys. Since the ground conditions did not allow the use of a cart, the system had to be carried by hand. The system comprised five FGM-650B gradiometers, set at 0.25m intervals. Samples were taken at 0.1m intervals and stored on a DLM-98 datalogger produced by Sensys. The Sensys gradiometer system uses a logarithmic measuring mode: measurements are taken continuously, and re-sampled to the set number of samples (grid length/sample interval) at the end of each line. The Sensys FGM650 gradiometers are similar to the better-known Förster FEREX fluxgate gradiometers, but the total range of the Sensys gradiometers is reduced



Illus. 37 Overview of the area which was subjected to a geomagnetic survey on 11 June 2010, overlaid on the OS 25 inch to the mile series of 1881.

to $\pm 3000\text{nT}$. The two single-axis fluxgate sensors are 650mm apart and have a resolution of 0.1nT .

The survey data were downloaded to a notebook using Sensys' own software MAGNETO®-ARCH, and subsequently exported for further processing in ArcheoSurveyor 2.5.4.0. Processing included de-staggering, de-striping and interpolating. Obvious shifts between adjacent traverses, caused by the operator walking at irregular speed, were corrected by manually moving (parts of) the traverses. Striping in the data was reduced by applying a low pass filter with a window of 3×3 datapoints and Gaussian weighting. Finally, the data were interpolated across the traverses to grid size of $0.06 \times 0.1\text{ m}$, and subsequently exported to and georeferenced in ESRI ArcMap.

Results

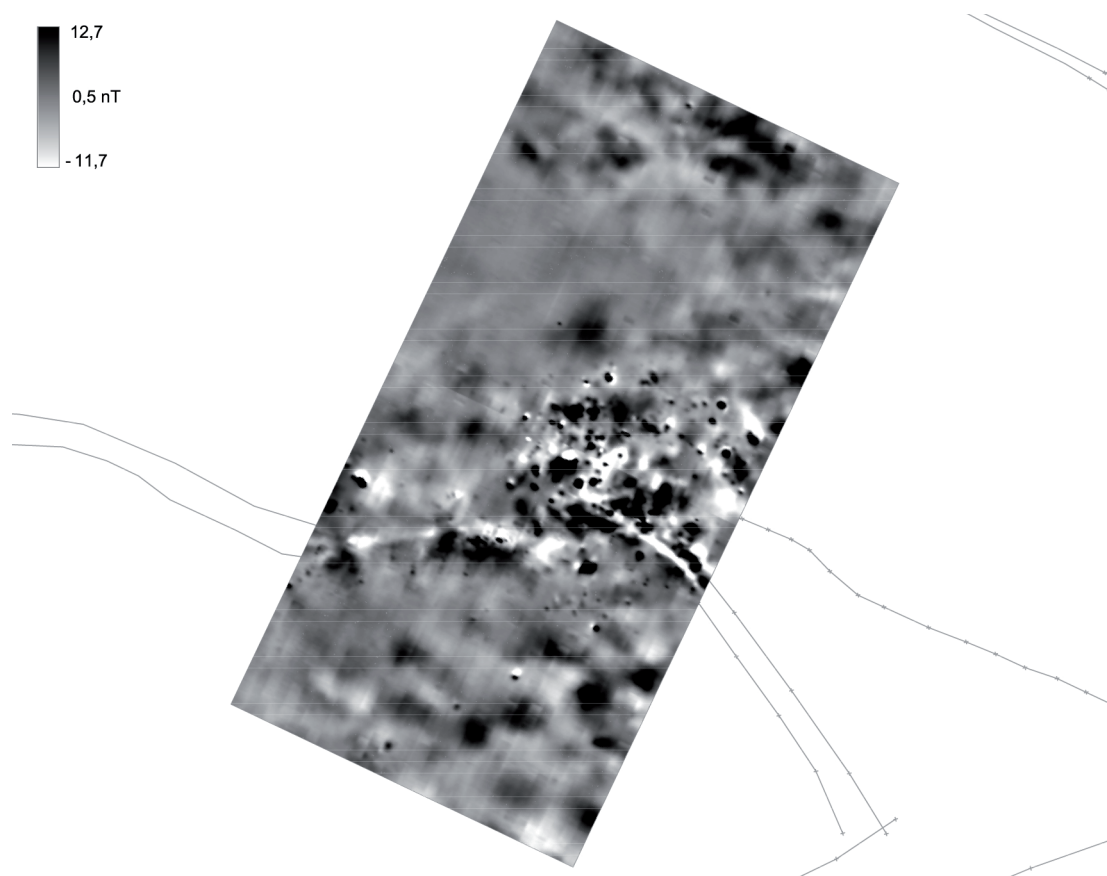
The magnetic response encountered at the site was very good and the survey revealed many anomalies of various size and strength (*Illus. 38 and 39*). The recorded values range from -241.0 to 331.4nT . The mean value lies at 5.1nT , the standard deviation is 6.9nT . Due to the processing and recalculation of the data after georeferencing, the given values differ slightly from the pixel values of the final data set, which was used for the interpretation.

The modern track, which crosses the site in an S-turn, appears in the data as a series of

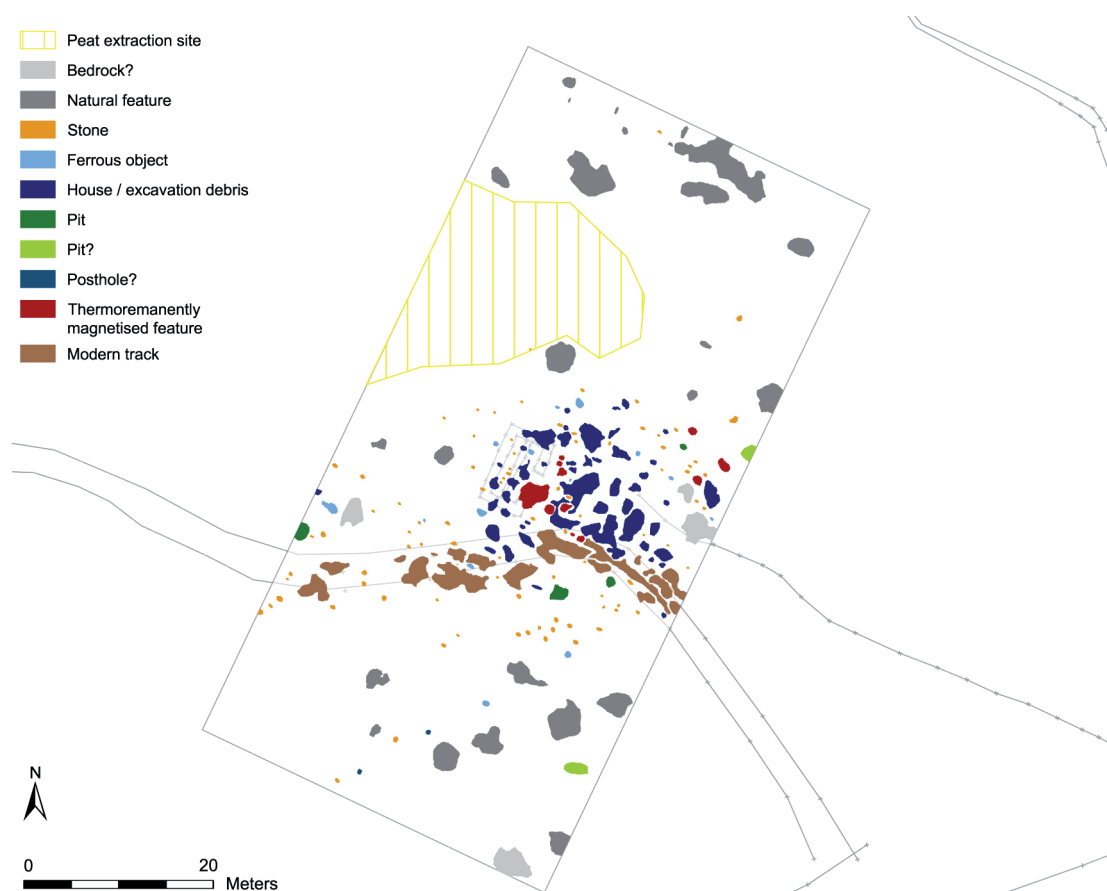
mostly negative anomalies, partly lined by strong positive anomalies. They correspond to the steep banks on both sides of the road of up to 1m high, which posed a serious challenge for the surveyors. The crossing of the banks led to sudden variations in the distance between the sensors and the ground surface, resulting in different values. However, since the road partly cut the archaeological layers of the site, some of the anomalies connected to the track may also be caused by (disturbed) archaeological features.

The area of the excavated house plan is marked by a distinct concentration of mostly positive anomalies of about 25m diameter in the central part of the survey area. The anomalies are caused by the debris of the building, mixed with cultural layers containing household waste, rotten wood and burnt material. However, although the site can clearly be identified as such, it is hard to recognize any structure within this area of magnetic disturbances or to interpret the individual anomalies.

Despite the high resolution of the measurements, it is neither possible to recognize single walls, nor is there a clear difference between the excavated and the unexcavated parts of the building. The latter may be due to the rather thin cover of the unexcavated parts (the remnants of the house being partly visible on the surface). Moreover, the excavation trenches were partly backfilled with



Illus. 38 Greyscale plot of the (processed) geomagnetic survey data. The underlaid outlines were surveyed during the excavation (image by Joris Coolen).



Illus. 39 Archaeological interpretation of the (processed) geomagnetic survey data. The underlaid outlines were surveyed during the excavation (image by Joris Coolen).

the spoil material at the end of the excavation, so that the response encountered over the trenches looks similar to the unexcavated parts.

A number of anomalies show values over 50nT and may therefore be caused by thermoremanently magnetised features. They form two loose concentrations, one of which is located in the centre of the house area, the other about 15m eastwards at the edge of the survey area. Some anomalies at the edges of the building zone can be interpreted as (possible) pits based on their size, shape and magnetisation.

The southern and central part of the survey area shows a number of small, bipolar anomalies, which are caused by small ferrous objects. Since they are clearly concentrated around the excavated building, most of them may be iron artefacts dating from the time of use of the house, or indeed from the excavation itself (nails, tools). A large and very strong (188 - -87nT) bipolar anomaly was encountered at the western edge of the survey area, probably caused by a large ferrous, or thermoremanently magnetised object. South of the modern road, two bipolar anomalies form an alignment with two other, rather weak but distinct

anomalies at the southern end of the survey area. The latter were tentatively interpreted as postholes, and the alignment can possibly be interpreted as a fence (despite the rather large spaces of 7-10m).

A large number of small, weakly positively magnetised anomalies of less than 0.5m² can be observed throughout the survey area. They are most likely caused by loose, iron containing stones. There is a clear concentration around the building and along the road. Since the natural bedrock at the site is covered by a thick layer of turf, most stones appearing on or near the surface may be associated with human activities.

The natural soil at the site shows a patchy structure of irregularly shaped, weak anomalies (both positive and negative), caused by an inhomogeneous concentration of iron oxides and/or different depths of the turf layer over the bedrock. To the north of the house, there is an area of about 30 by 20m, which appears more quiet or homogenous than the adjacent parts. This area roughly corresponds to some rectangular terraces, which were observed during the survey, and which can be interpreted as old peat extraction pits.

Marine archaeological survey

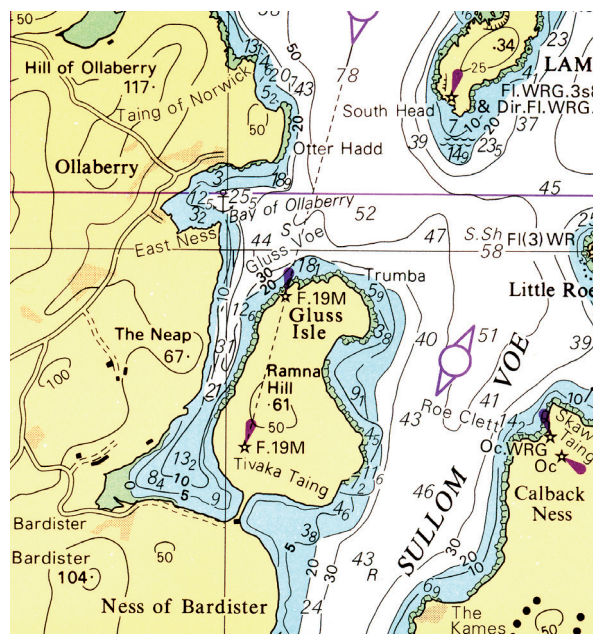
(by Endre Elvestad)

The sandy beach at the Blade of Fiblistier is very well protected from winds and sea from West to North. Near the sea, on the grassy patch of the Blade, are the shallow remains of two possible noosts or other structures related to the landing of boats (see *Illus. 5*). In June 2009 two dives (to a depth 3-5 m) were undertaken, ca. 30 to 50m parallel to the beach. That would be the area where boats would most likely have anchored. No remains of artefacts or ballast were found. However, the visibility was rather poor due to seaweed (*Illus. 40*). It is noteworthy that there is no mention of a harbour at Gluss Voe in any sea maps prior to the late 19th century (e. g. not in



Illus. 40 Endre Elvestad preparing for a dive in Gluss Voe in June 2009. The beach at the Blade of Fiblistier is still today used for landing boats and boat shelters.

Depot Generale de la Marine 1803). *Illus. 41* provides an overview on the sailing conditions, sailing depths and anchorages of Gluss Voe. The Blade is situated where the sea bed depth varies between 21 and 13m and is hence well suited for larger vessels to anchor.



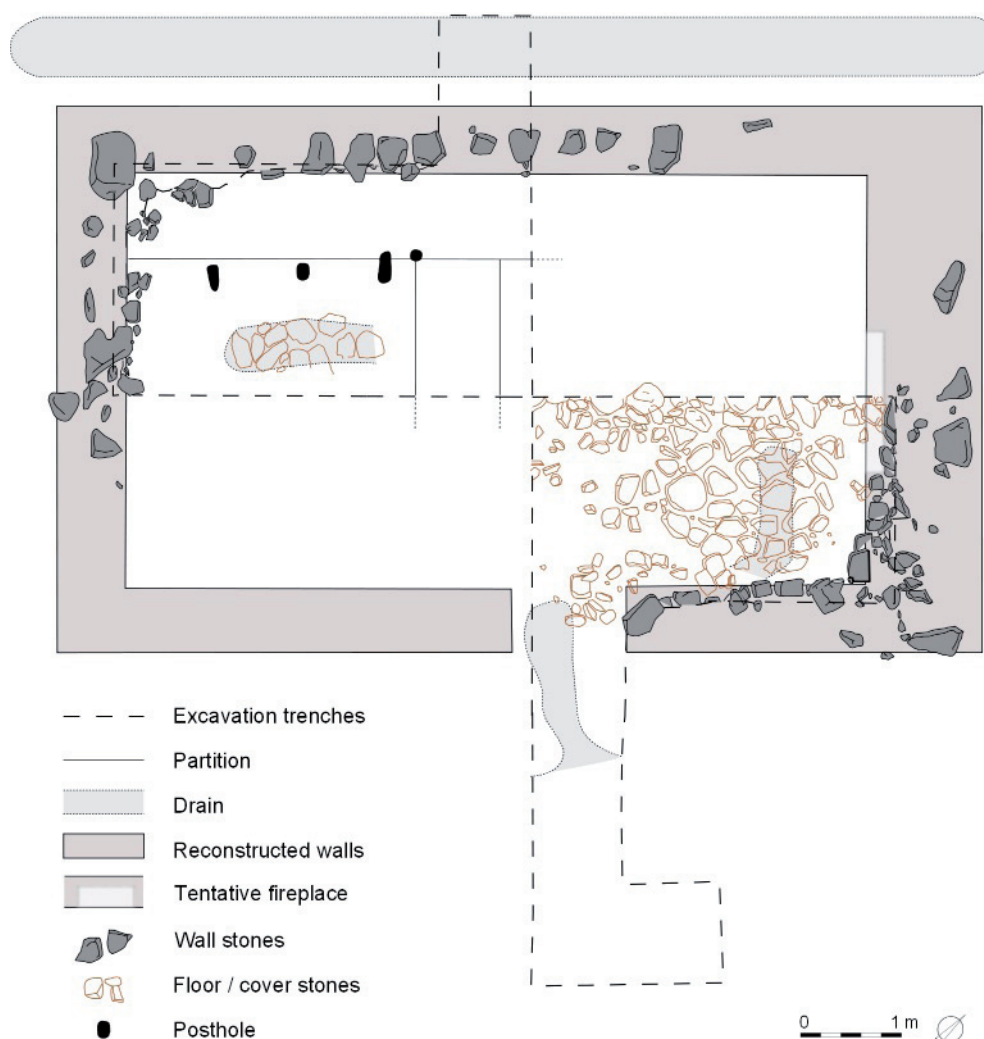
Illus. 41 Map of Gluss Voe with sailing depths, sailing conditions and anchorages. Admiralty Chart, Shetland Islands, NW Sheet (© The United Kingdom Hydrographic Office).

Interpretation of excavation and survey results

The excavated building can be interpreted as part of a farm based on the archaeological results and the evidence provided by the maps. The excavation took place in the farm building which evidently contained the living quarters. The find assemblage, consisting of pottery, glass bottle fragments, metal scrap, clay pipes, spectacles and a shoe fragment, clearly reflect a domestic use of the house. The excavation has yielded few finds that reflect economic activities, though the lead weight and the sickle do give some indication. Since the first edition of the OS 25-inch map of 1881 marks several small fields and a larger, fenced-off domain surrounding the house (see *Illus. 8*), its occupants were at least partially dependent on agriculture. The same map also reveals a smaller extension to the south of the building. This part of the site has largely been destroyed by a modern track and was not excavated. Hence, we have no indication of the date nor of the use of this part of the building. Since it disappeared from the OS map before the present track appeared, it may as well have been demolished before the track was directed across the site (i.e. between 1900 and 1971).

Before the building work started, a terrace was dug into the hillside to provide a level platform. However, the walls were built directly on to natural soil around the terrace. Thus, the base of the NW wall was set higher up above the floor, the lower part of the wall being formed by the terrace bank. The excavated building measured 9 by 4.5m (ca. 40.5 m²) and was divided into at least three parts (*Illus. 42*). The room at the north side, measuring c. 4 by 4.5(?)m, had a paved floor and probably contained a hearth or fireplace in the NE wall. Hence, it can likely be interpreted as the living room. Under the paved floor was a wood-lined drain, which led across the room, then bent sharply towards the entrance. The location of the entrance at the SE side of the building is confirmed by the 1881 OS map, which shows a track leading down from this side of the house to a boat shelter at the beach. The structure on the map is still visible today as shallow depression (see *Illus. 5*).

The opposite side of the house was taken up by a room of ca. 2.5m width. Its floor level was slightly lower than the living room floor. No



Illus. 42 Reconstruction of the ground plan of the excavated building at Fiblister.

traces of flooring were found in this part. This room also contained a subfloor drain, which ran along the room and was covered with flagstones. The NW wall was lined by a timber structure supported by three posts. Both rooms were separated by a corridor of about 1m width. Its floor level formed a step between both rooms and sloped slightly towards the presumed entrance; as in the southern part, no traces of flooring were evident. The corridor may have been lined by wainscotting, as indicated by the change in level on both sides and a parallel posthole set at the NW corner.

The excavation did not allow the dating of the construction of the building. The artefacts which all date to the second half of the 19th century only mirror the last occupation phase of the house. Nevertheless, a number of features indicate that the building is likely to have been constructed in the 19th century. The plan of the building is clearly influenced by northern British forms. It has a central doorway with a passage which divides the building into two parts. The hearth is set in the gable wall (Tait 2012, 175-229). The 1891 Shetland census records that the sole occupants of Fiblister were the farmer John Hay, aged 78, a fisherman, with his wife, son and his wife and five grandchildren. The house is said to have four windowed rooms.¹³ This entry probably refers to the farm of Fiblister, further up the hill, which is the main farm for Fiblister. The nature of the building near the shore is unclear. It was not evidently a shop, since no merchants are recorded there in *Mansons' Shetland Almanac and Directory for 1893*, nor in *Peace's Orkney and Shetland Almanac and County Directory* which preceded it. It is also unlikely to be a fishing lodge, since it has a yard and out-buildings. All these features suggest that it may have been a small farm which was no longer occupied by 1891. The building seems to have been abandoned between 1878 and 1900 (survey dates for the maps) based on the consecutive editions of large-scale OS maps. It seems that part of the floor near the entrance has been robbed. After that, the building was largely destroyed by the ravages of time. This phase is reflected by several layers of tumble within and on the downhill side of the building.

The geomagnetic survey carried out around the building did not reveal other buildings or structures. However, the survey clearly revealed a human activity zone with a high concentration of magnetic anomalies, which are caused by the scattered debris and cultural layers of the excavated building. It shows that the site has a very limited extent of about 25m diameter, although the existence of further structures outside the surveyed

area can of course not be excluded. Compared to the 1878 25-inch map and the excavation plan, the anomalies all seem to lie on the eastern, down-slope side of the building. This is probably due to the natural slope, the debris having tumbled downhill. However, it may to a certain extent also reflect the human activities, which have taken place at the site. On the 25-inch map mentioned before, a fenced-off yard of about 23 by 20m is located to the west of the house. A small building, probably a lambhouse or sty of about 5 by 4m was located at the SW corner of the yard, just outside the survey area. A strong bipolar anomaly and a larger positive anomaly, which may be a pit, were encountered at the edge of the survey area. They may be associated with the building. Apart from these, the former yard does not show any magnetic anomalies, nor do the geomagnetic data reveal any traces of a yard wall. It can be concluded from this that the yard was only used for keeping animals or as a garden, while other activities (some of which may have involved fire, based on the strong magnetisation of some anomalies) and the discard of household waste may have taken place in front of the house on the sea side.

While it is impossible to recognize the layout and partitions of the building itself in the geophysical survey, one feature within the building stands out from the rest. The SE corner of the building revealed a large and very strong, positive anomaly, which is probably caused by a thermoremanently magnetised feature and may be interpreted as a hearth (see *Illus. 38 and 39*). This part of the house has not been excavated.

South of the track leading down to the sea an alignment of at least four small, pit-like anomalies was discovered. The alignment runs more or less parallel to the coastline in SW-NE direction, and thus is not aligned with the building or the 19th-century field structure shown on the map of 1881. Therefore, it may be of a younger age. The peat extraction site to the north of the house cannot be dated on the basis of the geomagnetic data. If indeed this interpretation of the terraces is correct, the fact that they are only vaguely visible in the present landscape indicates that they were abandoned long ago.

Discussion of evidence for foreign trade

The excavation at the Blade of Fiblister was undertaken to locate evidence for a German presence and activities at the site, suggested by written sources. The site was chosen for excavation because the ruin which today is still visible is the only trace of a building near to Gluss Voe which

¹³ 1891 census of Shetland; information from Brian Smith, Shetland Archives.

both belongs to the farm of Fiblister, as stated in the records, provides a good anchorage and has a landing place to lade goods. There are a small number of other ruins to be found along the shores of the Voe. About 350m south of the Blade of Fiblister lies the abandoned farm of Loder (or The Lothor on old maps) but this seems to be a less likely place for a German trading site. There are some noosts just below the farm, but the site is not good for landing boats and it is very difficult to pull them up beneath the cliff.

All diagnostic artefacts that the excavation revealed date to the second half of the 19th century. This corresponds nicely to the recorded family of John Hay which according to the Shetland census of 1891 occupied the place. It is, however, important to stress that this is evidence for the last occupation phase of the building only. It is possible that the excavated building had been constructed on the site of an earlier bōd erected for trade by foreign merchants. The location of the site within the Gluss Voe is the best one within the Voe to conduct trading business as it not only provides a good anchorage but the sandy beach and the flat grass plain is very suitable for e. g. processing or drying fish and the preliminary storage of goods. Even today boats are drawn up there.

The evidence points in two directions. On the one hand the documents, together with the evidence of the topography and the absence of sites elsewhere in the immediate vicinity of the Blade of Fiblister suggests that the excavated location was likely to be the site of the booth held by a German trader. On the other, the failure to find any archaeological trace of activity earlier than the second half of the 19th century suggests that the site provide no evidence that it was occupied before that date.

We need to take a critical view of the evidence to resolve the apparent contradiction. There is a considerable difficulty with the description of the site. The place-name Gluss is today applied to the inlet, the island, the ayre (beach) and the hamlets of North and South Gluss. It is not clear whether it was applied more precisely in the late 17th century. The 'Dutchmen's' booth at Gluss mentioned in 1577 and again in 1589 could have been anywhere along the voe.¹⁴ However, the 7½ marks of udal land lying together with the Dutch booths granted in 1626 were apparently specifically at Fiblister (see above). The booth might well have been a stone building, in which case it would have been taken over by other people and used further when it ceased to operate for trading sometime after 1626. In such a case the

new occupants would have cleaned the house and taken away all older evidence. This phenomenon has been previously observed during excavations of late medieval and early post-medieval buildings in Shetland, for example at the German trading station at Gunnister where excavations revealed no artefacts of that period. The absence of evidence in the excavation is not necessarily evidence for absence of activity.

No resolution of the conflicting strands of evidence can be reached at this point. The excavation has perhaps emphasised the problems of recognizing the ephemeral remains of a seasonally occupied trading site, particularly when overlain by the more copious activity of the 19th century.

Acknowledgements

The excavation at Fiblister was a joint project of the Department of Prehistory and Medieval Archaeology, Vienna University, and the School of Geography, Archaeology and Palaeoecology, Queen's University Belfast. It was funded by the Römisch-Germanische Kommission of the German Archaeological Institute. The team consisted of Mark Gardiner, Natascha Mehler, Judith Benedix, Ronny Weßling (both Vienna), Lindsay Poole and Dr. Jill Campbell (Belfast) and Dr Nigel Melton (Bradford) to whom we are most grateful. Brian Smith and Dr Ian Tait of Shetland Museum and Archives provided valuable information and Dr David Higgins, Liverpool, helped identifying the clay pipe fragments.

Finally we wish to thank Christine Robertson and her family (Eric, Tommy and Kelly) who live at Fiblister and kindly gave us permission to work on their land.

¹⁴ Shetland Documents 1195-1579, no. 237, f. 9v; Shetland Documents 1580-1611, no. 156

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Appendix 1: stratigraphic contexts

Context nr.	Location	Context type	Colour	Description / comments	Coarse components	Excavation method	Plan	Interpretation	Find categories*	Later than	Earlier than	Equal with
7	NE & SW quadrants	layer	very dark brown	Topsoil. Number given to finds from both NE and SW quadrants. Silt, firm consistence. Varying thickness, ~ 7 cm		mattock, spade	CS	Topsoil		14, 19, 8		
8	NE & SW quadrants	layer	dark red brown	Interface with 7 was not evident using the method of excavation adopted. Silt, firm to loose consistence. Max. thickness 10 cm	2-5 % small angular stones < 2 cm	trowel	CS		Fe, cl, pot, gl, pl?	12, 34, 9	7	
9	SW quadrant	layer	dark (red) brown	Possibly the fill of the lower building. Does not occur in S part of SW quadrant. Finds initially collected with 7. Some large stones (tumble?) are embedded in this. Silt, firm. ~ 3 cm thick.	See context 8	trowel	C		Cl, fe, pot, b, gl	11, 20	8	
10	NE quadr. extens.	layer		General number given to the clearance of the extension of the NE quadrant to the E.		spade, trowel	-		Fe, gl, pot	103	14	16, 17
11	SW quadrant	layer		Content given to material in SW quadrant right above natural. This deposit is not clearly defined.			-			102	9	
12	NE quadrant	layer		Layer of water-rounded stones forming a floor level in NE quadrant. It does not survive everywhere and around the entrance it appears to have been robbed. A rather uneven surface, but clearly a floor.		mattock, trowel	C	Floor		13	8	
13	NE quadrant	layer	dark brown	Layer under the water-rounded stones. Almost clay, thickness ~ 5 cm.		trowel	C		Fe	15, 28	12	
14	NE quadr. extens.	layer	grey-yellowish	Number given to a layer in the extension of the NE quadrant to the E. Triangle shaped redeposited natural. Thickness ~ 3 cm.		trowel	C			10	7	
15	NE quadrant	layer	darkish brown	Number given to a slot in 13. Wood in the slot maybe above the floor of the second phase. (This floor is wooden?).			D		W, fe, tex, gl, pot	27	13	28
16	NE quadr. extens.	layer	darkish brown	Stones in the extension of the NE quadrant and soil beneath the stones. Probably same layer as 10.		spade, trowel	C		Gl, pot	103	14	10, 17
17	NE quadr. extens.	layer	darkish brown	Stones in the extension of the NE quadrant (extension) and soil beneath the stones. Possibly same layer as 10 and 16. Partly filling of a small drainage ditch.		trowel	C, CS			103	14	10, 16
18	SW quadr. extens.	interf.		Ditch at W-side of building to divert water from up-hill slope away and to the sides of the structure. 1.1 m wide. There was no clear difference between the fill of this and the topsoil.		mattock, trowel	C, F, CS	Ditch interface		NAT	19	

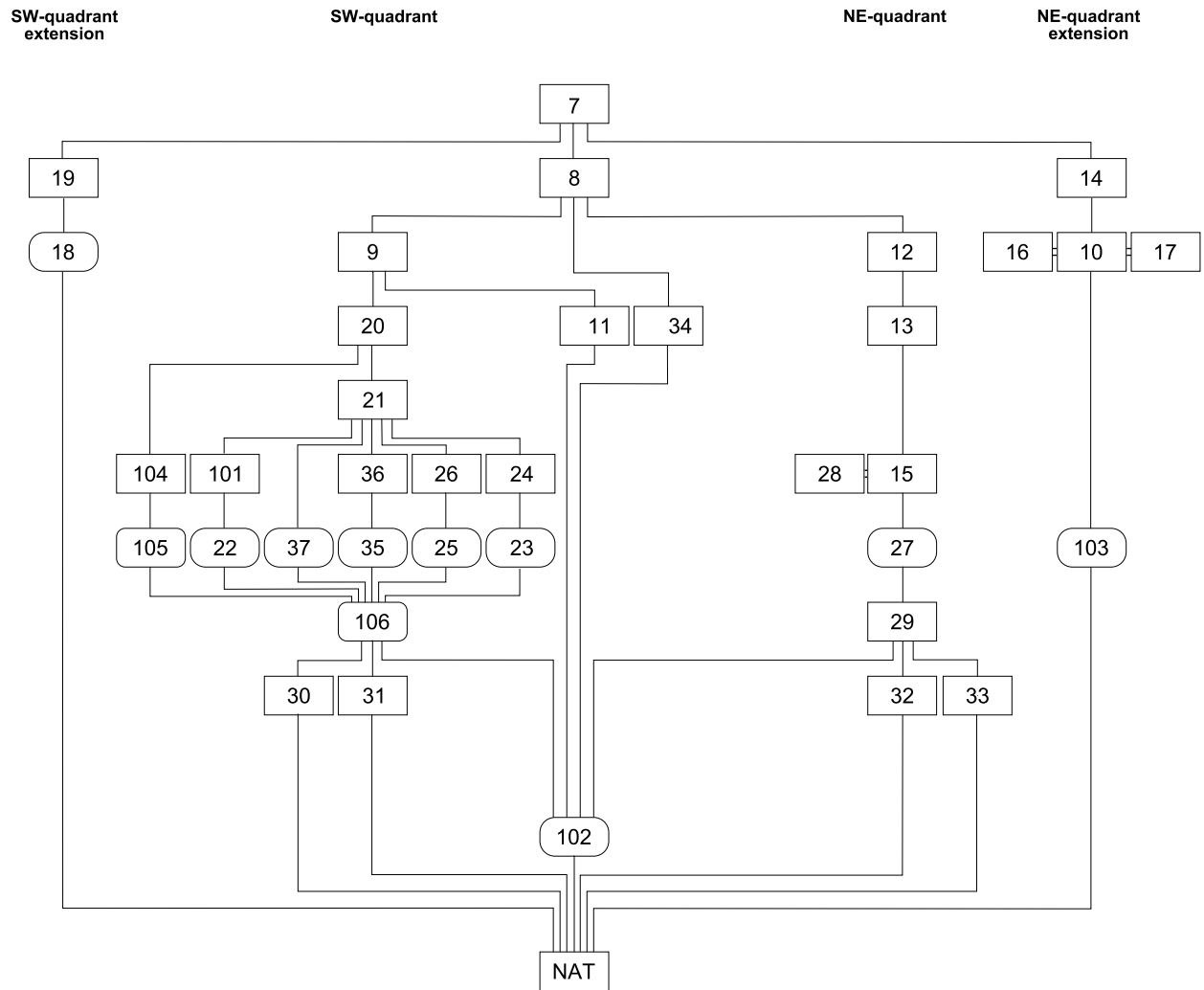
Context nr.	Location	Context type	Colour	Description / comments	Coarse components	Excavation method	Plan	Interpretation	Find categories*	Later than	Earlier than	Equal with
19	SW quadr. extens.	layer	dark brown	Clear base cut in natural. Contains fragments of wood. Silt, firm consistence.		mattock, trowel	C, F, CS	Ditch fill		18	7	
20	SW quadrant	layer	light brown-yellow	Redeposited natural. Silty-sand, hard/very hard.	5-10 % semi-rounded stone derived from natural		-	Frost-shattered inwash overlying primary deposit		21, 104	9	
21	SW quadrant	layer	blue-grey	The lower edge of this context has a thin, iron-enriched line. Numerous finds come from this layer, including some attributed to 8/9, which were found at the base of the trench overlying the floor slabs. Clay, medium consistence.			-	Primary deposit over floor at SW end.	Gl, pot, fe, leath, w	101, 24, 26, 36, 37	20	
22	SW quadrant	interf.		Oval shaped post-hole on the inside of the west wall. 1 of 3 in alignment running along the wall from SW corner. Diameter 17 cm, depth 17 cm. Fill was removed and not recorded. It was not initially recognised as a post-hole.		trowel	F	Post-hole		106	101	
23	SW quadrant	interf.		Shallow, sub-circular post-hole. Part of alignment of 3 that runs along interior of W wall from SW corner. Diameter 22 cm.		trowel	F	Post-hole		106	24	
24	SW quadrant	layer	dark grey brown	Fill of shallow post-hole 23. No finds. Middle post-hole in row of 3 that run internally from SW corner along W wall		trowel	F	Fill of post-hole		23	21	
25	SW quadrant	interf.		Oval shaped post-hole, relatively shallow. Diameter 26 cm, depth 7 cm.		trowel	F			106	26	
26	SW quadrant	layer	mid grey blue	Fill of post-hole 25. SW corner post-hole (of row of 3) that run internally along west wall. No finds. Diameter 26 cm, depth 7 cm. Silty, medium consistence.			F	Fill of post-hole		25	21	
27	NE quadrant	interf.		Cut of ditch, covered in part by wood and in the E by stone slabs. Previously called with its fill 15. Width 15 cm, depth 14 cm			D, F			29	15, 28	
28	NE quadrant	layer	medium grey	Fill of drain 27. Contains a lining and cover of wood. Silty clay, medium consistence.			D, F	Fill of drain		27	13	15
29	NE quadrant	layer	red-brown-yellow	Redeposited natural. Very hard, 2 cm thick. Laid over the N half of the building to provide a floor surface. Overlies natural. Covers the wood over 27.	10 % gravel	mattock	D, F	Floor		32, 33	27	
30	SW quadrant	wall		S-wall of croft. 0.6 m wide. Roughly shaped, roughly faced, not coursed stones, no bonding material apparent. This wall sits on the unremoved topsoil and on a band of natural subsoil.			C, F	S-wall of croft		NAT	106	

Context nr.	Location	Context type	Colour	Description / comments	Coarse components	Excavation method	Plan	Interpretation	Find categories*	Later than	Earlier than	Equal with
31	SW quadrant	wall		W-wall of building. 50-60 cm wide. Inner face does not appear to survive, but must have been smaller stones, which have fallen in. Outer face: sub-angular, stones about 0.35 m wide, laid at right angles to wall, roughly coursed.			C, F			NAT	106	
32	NE quadrant	wall		E-wall of building. 0.6 m wide. Inner face: sub-angular, roughly faced, roughly coursed field stone. Bonding material soil? Outer face: at no point was the outer face of the wall exposed. Laid on the soil of the ground surface.			C, D, F			NAT	29	
33	NE quadrant	wall		N-wall. 1.2 m wide. Inner & outer face: sub-angular, roughly faced, roughly coursed field stones, bonded with soil? Stones laid with axis along line of wall. Core: sub-angular and rounded, unfinished, irregularly coursed field stones, bonded with soil?			C, D, F	N-wall ofcroft. This is a notably thicker wall and presumably contained the chimney, of which there is some slight evidence in the		NAT	29	
34	SW quadrant	layer	dark brown	A thin, well-defined layer below 8 and above natural, which survived only in a small patch in the SW-quadrant. Silty clay, medium consistence. Thickness ~1 cm.			-			102	8	
35	SW quadrant	interf.		Small post hole in line with slot 37, next to wall of internal division/partition. Diameter 9 cm, depth 5 cm.			F	Post hole cut, probably to hold wooden support for partition.		106	36	
36	SW quadrant	layer	dark black grey	Fill of small post hole 35, in line with slot 37, next to wall of internal division/partition. Diameter 9 cm, depth 5 cm. Silty, medium consistence.			F	Fill of small post hole probably to hold wooden support for partition		35	21	
37	SW quadrant	interf.		Small slot in line with post-hole 35. Length 0.39 m, width 9 cm			F	Slot		106	21	

Context nr.	Location	Context type	Colour	Description / comments	Coarse components	Excavation method	Plan	Interpretation	Find categories*	Later than	Earlier than	Equal with
101	SW quadrant	layer		Fill of post hole 22. Number given after excavation; fill was removed and not recorded, since it was not initially recognised as a post-hole. Diameter 17 cm, depth 17 cm.		trowel	F	Fill of post-hole		22	21	
102	NE & SW quadrants	interf.		Number given after excavation. Interface of initial removal of soil to provide a level building platform.			CS	Building terrace		NAT	11, 29, 34, 106	
103	NE quadr. extens.	interf.		Interface of drain cut in NE quadr. extens. Context defined after excavation.			D			NAT	10, 16, 17	
104	SW quadrant	layer		Fill of drain in SW quadrant with flagstone cover. Context defined after excavation.		not excavated	F			105	20	
105	SW quadrant	interf.		Drain cut in SW quadrant. Context defined after excavation.		not excavated	F			106	104	
106	SW quadrant	interf.		Floor level in SW-quadrant. Context defined after excavation.			-			30, 31, 102	105, 22, 23, 25, 35, 37	
NAT	NE & SW quadrants	layer		Natural soil			F				18, 30, 31, 32, 33, 102, 103	

* Find categories: b = bone; cl = clay pipe; fe = iron; g = glass; pl = plastic; pot = pottery; tex = textile; w = wood

Appendix 2: Harris matrix



Appendix 3: finds list

Find Nr.	SF Nr.	Context	Fabric	Object	Sum	Description	Date
1	15	8	iron	bolt?	1	heavily corroded iron object, maybe iron bolt with other iron object corroded onto it	
2		15	wood	unknown	2	2 unknown objects, one with an iron nail	
3		15	iron	nail	1	nail	
4	16	9	ceramic	clay pipe	1	part of clay pipe, with incised line on both sides of the stem; heavily smoked; Gladstone type, prob. Scottish manufacturer	c. 1870-1920
5		21	glass	bottle	2	two fragments of small square shaped glass bottle, sherds matching; greenish colour with air inclusions	
6		21	ceramic	bowl	9	9 sherds of whiteware with cut sponge decoration, one of them is a rim sherd, 8 body sherds; small bowl; decoration blue flowers on	c. 1840-1870 cut sponge
7		9	iron	bolt?	1	heavily corroded iron object, maybe iron bolt with other iron object corroded onto it	
8			glass	vessels	3	3 glass fragments from two different vessels: 1 green bottle neck, with air inclusions; two matching sherds of a small bottle with bottle neck and shoulder, light blue color with air inclusions = medical bottle	bottle neck c. 1830-1870, blue bottle neck late 19th century
9			ceramic	clay pipe	1	clay pipe fragment, rim fragment; smoked	
10			ceramic	bowl	30	30 fragments of a whiteware bowl with cut sponge decoration; 10 of them rim sherds and the complete base; decoration blue flowers on yellow background; blue band around the rim; identical vessel like find nr. 6: two rim sherds from each context are matching	c. 1840-1870 cut sponge
11		8	ceramic	clay pipe	2	two clay pipe stem fragments, not matching	
12		8	glass	spectacle	1	one spectacle glass, slightly damaged on the edge; probably same spectacles as find nr. 44	
13		8	glass	glass	13	13 glass fragments: 4 of them green (bottle glass with air inclusions), 2 greenish (bottle glass with air inclusions), 1 blueish (very thin, with air inclusions), 6 clear glass (5 of them matching with moulded decoration)	
14		8	ceramic	cup, storage jar	9	three fragments of a sponge ware bowl, base and rim: light brown sponge decoration ornamental with line under the rim; decoration also inside; 6 fragments of a large storage jar, reddish-brownish fabric, with dark brown glaze inside and partly outside, one of them is a base fragment; matching with a sherd from find nr. 17, identical vessel.	19th cent.
15		8	plastic?	unknown	1	tiny fragment of plastic? White with blue and other decoration	
16		8	iron	nail	1	possible nail fragment	
17		9	ceramic	21 fragments from 3 vessels	21	16 fragments of a large storage jar, identical vessel as find nr. 14, matching sherds, reddish-brownish fabric, with dark brown glaze inside and partly outside; 4 fragments of a jug, grey fabric, dark brown glaze inside and outside, with decorated handle; 1 white ware cup fragment (rim with handle)	
18		9	ceramic	clay pipe	1	clay pipe fragment: stem with mouth piece	
19		9	iron	nail	1	fragment of large iron nail	
20		9	bone	bone	1	animal bone (bird?), unworked	
21		9	glass	4 fragments from 2 glass vessels	4	4 glass sherds: 1 greenish with air inclusions, thin; 3 blueish glass with air inclusions, from square shaped small bottle (very likely same vessel as find nr. 23)	

Find Nr.	SF Nr.	Context	Fabric	Object	Sum	Description	Date
22		8	ceramic	vessels	6	6 fragments of two different vessels; all with dark brown glaze on the in- and outside	
23		8	glass	vessel	16	16 fragments of a blueish rectangular glass bottle, all body sherds, air inclusions; most likely same vessel as find nr. 21	
24		9	ceramic	clay pipe	4	4 fragments of clay pipes, all small bowl fragments	
25		9	glass	6 fragments from 2 vessels	6	6 fragments: 4 greenish with air inclusions, from bottle with square base and rim, medical bottle; 2 clear glass fragments with air inclusions	
26		9	iron	bolts	5	5 iron fragments: 1 small bolt, 1 clench bolt head, 3 other fragments	
27		9	ceramic	vessels	17	17 fragments: 4 rim sherds of two different vessels, all with dark brown glaze; 1 handle fragment; several fragments of a spout, other body sherds	second half of 19th century
28	14	9	iron	chisel?	1	large iron object (chisel?)	
29		16	glass	6 fragments from 3 vessels	6	6 glass fragments: 2 clear glass with air inclusions, 1 greenish with air inclusions, from square shaped bottle; 3 small clear glass fragments with moulded decoration	
30		16	ceramic	5 fragments from 3 vessels	5	5 fragments: 1 white rim sherd, 3 brown glazed body sherds (matching), 1 base sherd of a bowl, dark brown glaze	
31		13	iron	object	1	possibly nail or bolt fragment	
32		9	glass	window	1	1 clear window glass, no air inclusion, looks rather young	
33		9	glass	6 fragments from 2 vessels	6	2 fragments of light greenish bottle with air inclusions, 4 dark green glass fragment (bottle with air inclusions)	
34		9	ceramic	13 fragments from 2 vessels	13	13 fragments from 2 different vessels: 6 fragments of a saucer with painted decoration (green and red flowers, and golden rim); 7 fragments of a large storage jar, possibly the same vessel as find nr. 17 (out of same context)	
35	23	21	iron	bolt?	1	large iron bolt (or chisel?) fragment?	
36		15	textile	textile	1	textile fragment	
37		15	glass	button and vessels	3	3 glass fragments: 1 complete glass button with faceted rim; 1 dark green bottle glass with air inclusions, 1 very thin clear glass with air inclusions	
38		15	ceramic	vessels	2	2 fragments: 1 dark brown glazed body sherd, 1 white rim with painted decoration (golden)	
39	21	15	glass	vessel and inlay	2	dark green glass fragment with air inclusions; 1 turquoise ovale shaped glass inlay (broche?)	
40	20	21	ceramic	vessel	4	4 fragments of a sponge ware bowl (2 rims and 2 body sherds from the same vessel); possibly same vessel as find nr. 10 and 6. Dark blue decoration on yellow background.	c. 1840-1870 cut sponge
41	20	21	leather	shoe	1	shoe heel made of 4 layers of leather, with nail in	
42	20	21	wood	objects	2	2 wood objects, one with corroded iron, maybe painted?	
43		10	iron	objects	9	9 iron objects (4 with enamel decoration, 3 bolt like objects, 2 rectangular shaped object)	
44		10	glass	spectacle	1	one spectacle glass, slightly damaged on the edge; probably same spectacle as find nr. 12	
45		10	glass	vessels	22	1 clear fragment with air inclusions, 2 blueish with air inclusions, 2 blue glass from cylindrical shaped vessel (vase?) with air inclusion, 4 dark green with air inclusions, 13 greenish fragments	

Find Nr.	SF Nr.	Context	Fabric	Object	Sum	Description	Date
45		10	glass	vessels	22	1 clear fragment with air inclusions, 2 blueish with air inclusions, 2 blue glass from cylindrical shaped vessel (vase?) with air inclusion, 4 dark green with air inclusions, 13 greenish fragments with air inclusions (1 base of bottle).	
46		10	ceramic	vessels	27	10 white ware of a saucer; 1 small white ware with sponge decoration? 16 fragments: 3 with light brown glaze, the rest with dark brown glaze.	
47			glass	vessels	72	selection of glass fragments from clearance: 11 dark brown bottle fragments, no decoration; 59 fragments from various clear and light blue glass bottles, no decoration, including two bottle necks / rims; 2 blue glass bottle fragments, no decoration.	
48			glass	vessel	1	one complete glass stopper, found in clearance.	
49		clearance	glass	vessel	1	one complete glass ink bottle with parts of cork stopper, found in clearance; rectangular shape, chipped rim; no decoration; height 5,0 cm, diameter of rim 1,8 cm.	late 19th/early 20th century
50		21	slate	pencil	1	fragment of a slate pencil, length 2,5 cm.	
51	18	13	iron	nail?	1	corroded iron fragment, possibly nail.	
52			metal	objects	11	11 corroded metal fragments, from clearance.	
53			metal	spoon	1	complete tea spoon of metal, length 12,5 cm.	
54		13	ceramic	vessel	2	two redware body sherds with dark brown glaze on both sides; possibly same vessel as find no. 62.	
55		19	ceramic	vessel	1	redware base fragment with light brown glaze on both sides.	
56		34	ceramic	vessels	3	two small creamware body fragments and one tiny redware body sherd with dark brown glaze.	
57	9	10	ceramic	clay pipe	1	fragment of a clay pipe bowl, decorated rim.	
58		8	metal	object	1	corroded iron fragment, possibly nail.	
59		34	ceramic	clay pipe	1	stem fragment of clay pipe, length 4,5 cm; mouth piece.	
60		8	ceramic	clay pipe	1	half of a clay pipe; upright bowl, smooth surface, heavily smoked; sharp heel / spur; molded relief double letter mark on front side of the bowl with letters TW; most likely Scottish product.	second half of 19th cent.
61			plastic?		3	3 fragments of plastic from clearance.	
62	18	13	ceramic	vessel	36	all fragments from one large storage vessel; possibly same vessel as find no. 54 and 85; dark red to brownish body, very fine, with thick dark brown glaze on the in- and outside; everted rim, large horizontal handle on shoulder.	19th century
63	2	2	slag?	slag?	1	one fragment, possibly slag?	
64			lead	net sinker	1	complete leaden net sinker, length 16 cm; slightly bent, with perforation at one end; from clearance.	
65	17	21	metal / wood	sickle	2	part of a corroded sickle with handle attached; one fragment of wood.	
66	22	21	wood	barrel	3	3 fragments of one large barrel stave of oak.	
67			ceramic	bricks	2	2 small brick fragments from clearance; light red fabric.	
68			ceramic	vessels	23	23 fragments of redware with dark brown to brown glaze; several vessels; from clearance.	
69			ceramic	vessels	28	28 fragments of whiteware / creamware, various vessels; found in clearance.	
70		8	glass	vessels	11	8 fragments of dark green bottle glass; 1 clear fragment; two blue fragments; no decoration.	

Find Nr.	SF Nr.	Context	Fabric	Object	Sum	Description	Date
71		8	ceramic	vessels	9	9 redware fragments (including one complete lid and a base of a tea pot) with dark brown glaze on both sides.	19th century
72		8	ceramic	vessels	3	3 creamware fragments, one from a small bowl with a blue decoration around the rim.	
73	19	21	leather	shoe	2	2 fragments of a leather shoe sole (adult); heavily worn with large hole in the middle.	
74		12	glass	vessels	2	2 fragments of 2 glass vessels, one of which is a rim from a small bottle.	
75	12	15	glass	bead	1	complete glass bead, round, black, diameter 0,8 cm.	
76		8	glass	vessel	2	two green glass bottle fragments.	
77	13	8	metal	object	1	one heavily corroded bent metal object, possibly a metal handle.	
78		10	metal	object	1	part of a corroded iron nail or bolt, length 4 cm.	
79		10	ceramic	vessel	1	base part of a whiteware bowl, no decoration.	
80		10	glass	vessel	2	two clear glass fragments.	
81	10	9	ceramic	clay pipe	2	two stem fragments; one 1,8 cm, no decoration; one 3,1 cm with horizontal inscription: ILSO(N)(M)AKE; pipe from Peter Wilson, Edinburgh, 1847-1902.	1847-1902
82	11	9	ceramic	vessel	1	base sherd of a tea pot with dark brown glaze on both sides; base with stamped inscription ...ONPANS	
83	8	11	ceramic	vessel	1	rim sherd of creamware saucer with blue painted decoration: rim with band and small flower below.	19th cent.
84		17	glass	vessel	1	base fragment of a clear small medicine flask; moulded, cylindrical, round; 3,4 cm diameter of base.	19th cent.
85		17	ceramic	vessel	5	5 sherds of a large redware storage vessel with dark brown glaze on both sides. Same vessel as find no. 54 and 62.	
86		17	metal	object	2	two corroded metal objects.	
87		17	glass	button	1	complete white glass button with four holes; diameter 1,2 cm.	
88		17	bone	fishbone	1	1 large cod fishbone (gill)	
89		17	ceramic	vessels	7	7 fragments of whiteware vessels.	