



OITIS

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Survey of Archaeological Remains at
Svínanes, Reykhólahreppur, Iceland
2011

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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: Svínanes farmstead in 2007 and the same scene in the 1950s. The older photograph shows the sheep house and hay store (site no. 23).

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Introduction

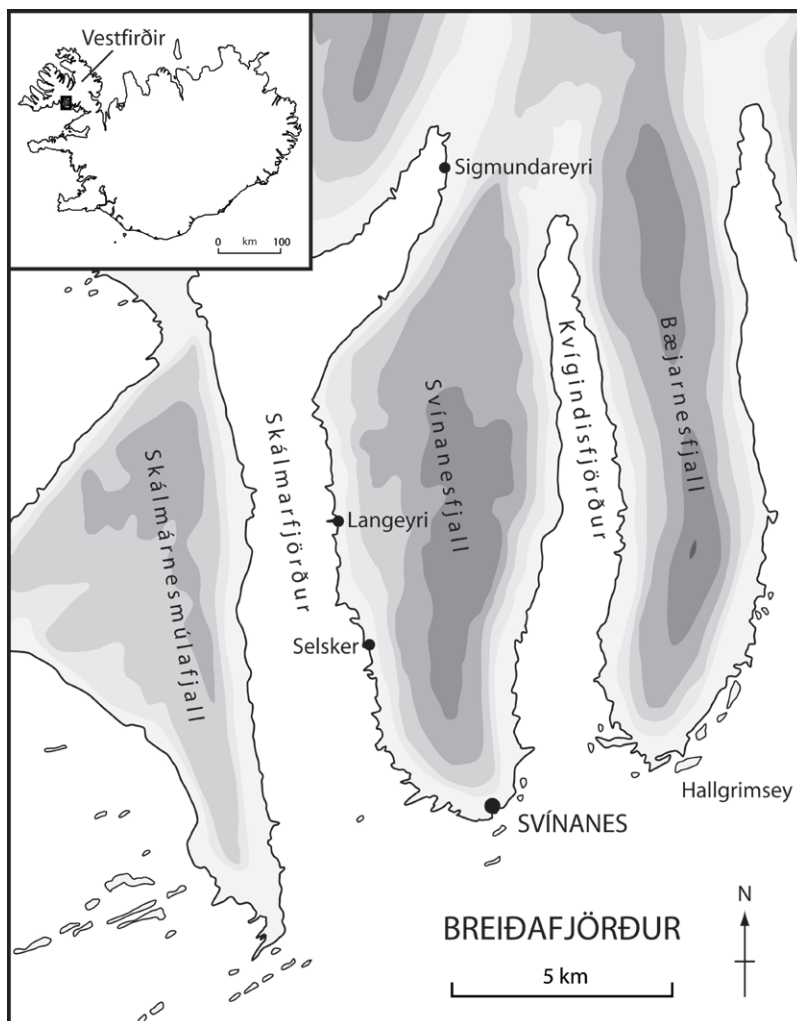
The farm of Svínanes lies in one of the more inaccessible parts of Vestfirðir (West Fjords), on the south side of a peninsula which lies between Skálmarfjörður to the west and Kvígindisfjörður to the east (Illus 1, 2). There is no road to the southern tip of Svínanesfjall and it can only be reached on foot or by sea. Its inaccessibility overland was the reason why the farm was abandoned in 1959 and the site is now marked by decaying buildings.

The present survey forms part of a research project on English and Hanseatic fishing and trading in Iceland in the period c. 1410 to 1602 undertaken by Queen's University Belfast and the Römisch-Germanische Kommission of the Deutsches Archäologisches Institut, with assistance from Fornleifastofnun Íslands.

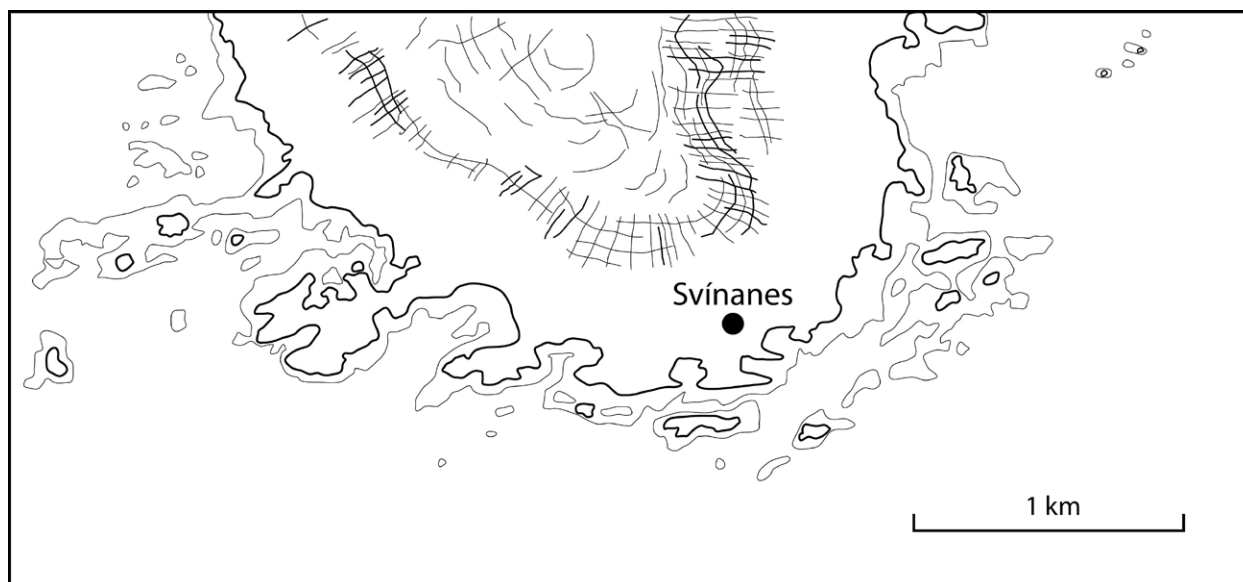
Attention was drawn to the site by the Örnefnastofnun Íslands, or Icelandic place-name survey, which noted the presence of the name Kumbaravogur by the sites of the former farm of Svínanes (Gardiner and Mehler 2007, 406-10). Names containing the element *kumbari-* are difficult to under-

stand. They had been thought to be derived from traders from Cumberland in England, although that is an area without any notable ports and hardly likely to be connected with traders to Iceland. An alternative and more likely interpretation is that the element refers to ships with masts and more specifically trading vessels or cogs (Halldórsson 1992 *sub verba* Kumbari; Gardiner and Mehler 2007, 409f.). It is noteworthy that the element is persistently found with the element *vogur*, 'bay'. The revised interpretation therefore suggests that it may be connected with the period of foreign trade between about 1410 and the establishment of the Danish monopoly in 1602 when Iceland was visited by Hanseatic and English ships.

There are four other sites in Iceland with the same place-name. Four of these names occur around Breiðafjörður, with a single further example on the south coast near Stokkseyri (Gardiner and Mehler 2007, fig. 8). A number of written documents mention Kumbaravogur, but it is not always clear which place they are referring. Most of them probably re-



Illus. 1 The area of the Svínanesfjall peninsula, showing the location of Svínanes, other possible trading sites and the farmstead of Selsker



Illus. 2 Detail of the southern end of Svínanesfjall showing the location of the farm and harbour

fer to Kumbaravogur at Snæfellsnes because, either they explicitly say so, or they mention other sites in the vicinity (e.g. *DI* XV, no. 12).

Aims and methods

The site was visited as part of the survey in May 2007 and again during August 2007, on the second occasion with Bergljót Aðalsteinsdóttir who had been born at Svínanes in 1944 and lived there until the farm was abandoned. The initial purpose of the survey was to identify any remains which might be associated with Hanseatic and English traders. However, the opportunity was also taken to make a more extensive record of all the remains there, both recent and more ancient, recording the oral history of the farmstead from Bergljót Aðalsteinsdóttir. This allowed the remains of the possible trading site to be set within a broader context.

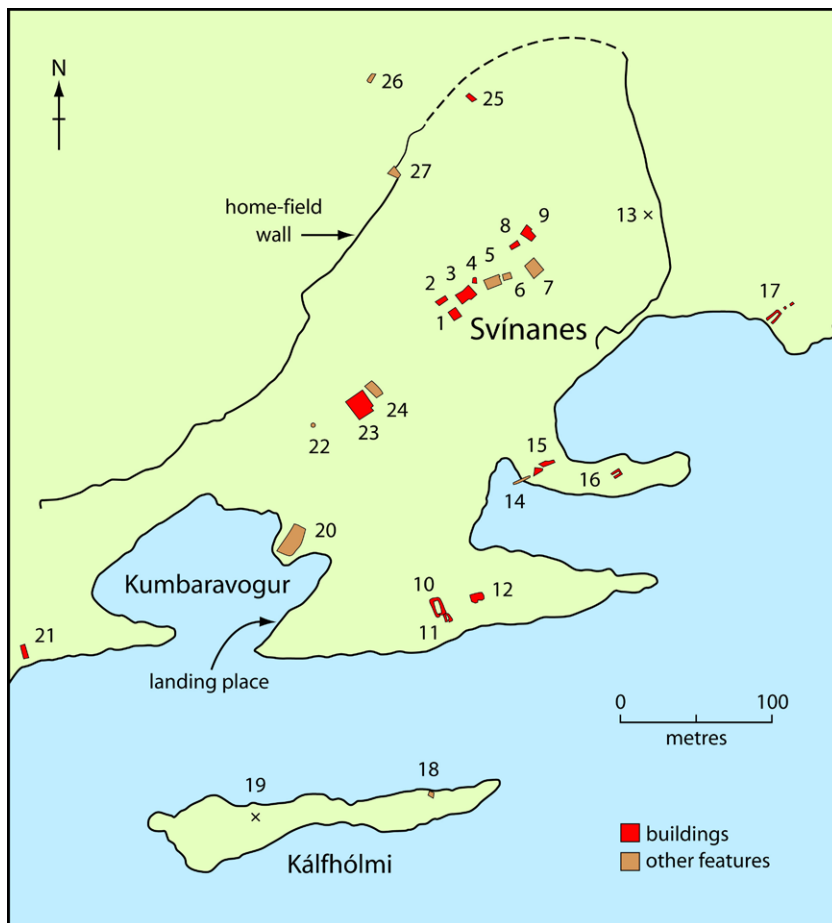
The site was surveyed with a Leica 1200 GPS using a reference station and a rover to record a series of positions on and around the remains. This method fixes the positions not only in relationship to one another, but also provides a latitude and longitude value for each point accurate to within about 10mm. The home field boundary and high-water mark of the coast were also recorded (Illus 3-4). Brief notes and photographs were made of each site.

History

Breiðafjörður was an important centre for trade. A recent discussion, for example, has drawn attention to the function served by Dögurðarnes, modern Dagverðarnes, near the east end of the

bay on Fellsströnd during the Commonwealth period (Callow 2009). The island of Flatey also served as a base for fishing and trade (for example, *Diplomatarium Islandicum* XVI, no. 109) and may have been home to a substantial community, at least in the summer months (Vésteinsson 2006, 96). Nearer to Svínanes, there are further possible trading sites on the Svínanesfjall peninsula. In 1959, Jóhann Skaptason reported the following: “Around the end of the 16th century Germans traded here at the fjord, at Langeyri and Kumbaravogur, greatly to the convenience of the neighbourhood. It is thought that remains of the trading ruin were to be seen for a long time at Sigmundareyri, seven *faðmar* long and two *faðmar* wide. This trade came to an end when the monopoly trade started, and farmers here had to go to Bíldudalur to trade until the year 1777, when trade commenced again in Flatey. Then they started to make some use of it, and later all the trade of the area was shifted there.” (Skaptason 1959, translation by Mjöll Snaesdóttir). Unfortunately, the author does not give a reference to his information; it may have been based on oral tradition.

The first of the sites mentioned by Jóhann Skaptason is at Langeyri in Selskerjaland on the west side of Svínanesfjall (Illus. 1). The second site referred to is Kumbaravogur at Svínanes discussed in this report. The third is at the north-east end of Skálmarfjörður where ruins survive at Sigmundareyri. However, this cannot have been a good anchorage because the head of the fjord is tidal and the area is exposed mud flats at low tide. Finnþogi Jónsson (2007) suggests on the evidence of oral tradition that the attraction of this site is that there was access over the mountains to the north to



Illus. 3 Sites recorded at Svínanes farmstead, recorded during the survey in 2007

Ísafjarðardjúp where there was much fishing. The route is still marked by a footpath. The traces of buildings at Sigmundareyri were recorded as part of this project, but are not reported here. The trading site at Langeyri has not been investigated.

Other possible trading or fishing sites nearby recorded by Finnbogi Jónsson from oral tradition lay at Hallgrímsey, an island on the south end of Bæjarnesfjall (Illus. 1) and Melanes on Þorskafjörður. The latter was visited as part of the project, but the site of ruins could not be located amongst the scrub.

The history of Svínanes has been recorded by Finnbogi Jónsson in *Árbók Barðastrandarsýslu 2006* and in a privately circulated report, *Old Ruins from the Sixteenth Century* (Jónsson 2007). This summary of the history below draws from those papers, as well as other sources.

According to the *Landnámabók*, an early settler of Iceland, Geirmundur allowed his pigs to roam at Svínanes and his sheep on the nearby headland to the west of Hjarðarnes (*Landnámabók*, 58-59).

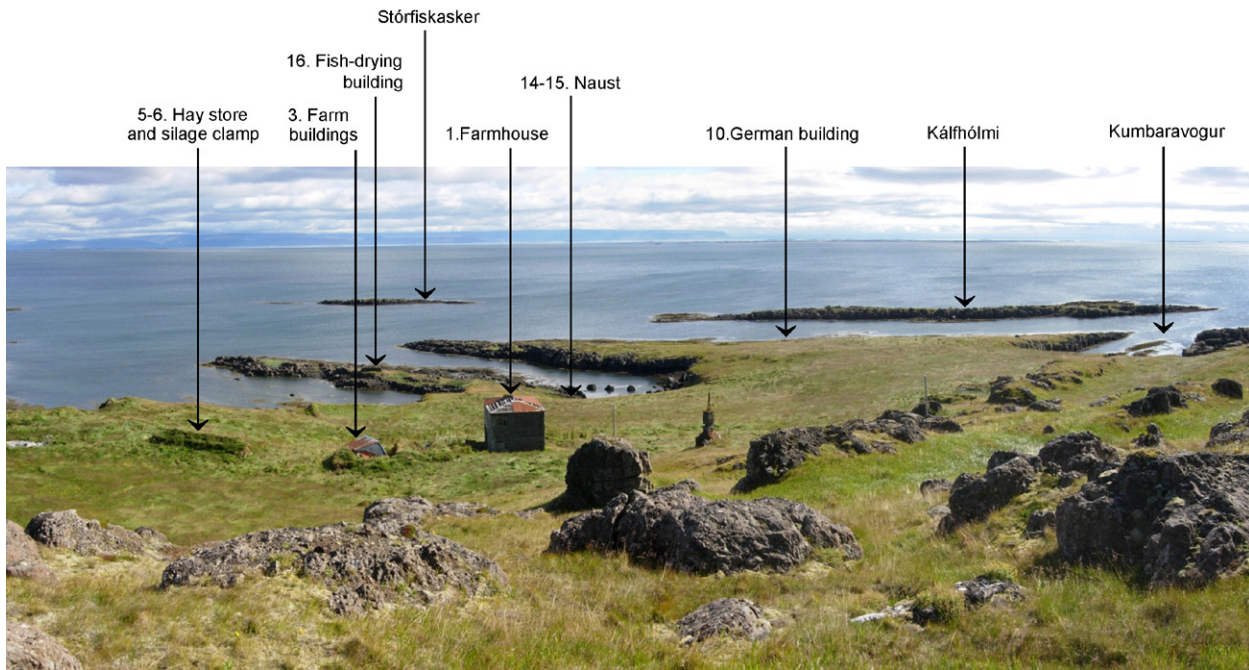
At the southern tip of the peninsula lies a harbour named Kumbaravogur which was used by Hanse merchants according to Ólafur Olavius (1964, 244-45) writing two hundred years later. His statement needs to be taken together with the evidence of

the place-name and oral history recorded below. In §248, Ólafur Olavius states:

Svínanes er skagi, sem skilur milli Kvígindis- og Skálmarfjarðar. Sagt er, að Þjóðverjar hafi fyrrum haft bækistöð þar á nesinu og rekið þar verzlun. Þetta er vafalaust satt, því að enn sjást leifar af þinni þýzku verzlunarstöð skammt frá sjónum. Höfnin var í Kumbaravogi, sem gengur inn í Svínanesoddann. Honum er svo farið að um fjöru er hann þurr út eftir, en vatn flýtur þar yfir um flóð. Í botni er í meðallagi mjúkur leir, en auk þess eru þar lausir steinar á víð og dreif, en ekki eru þeir stærri en svo, að hæglega má taka þá brott. Tvær klettableinar liggja að vognum; er hin eystri þeirra há, en sú vestri er lægri.

“It is said that Germans formerly had a main base there on the peninsula and traded there. This is without doubt correct, because remains of the German trading station are still to be seen close to the sea. The harbour was in Kumbaravogur that cuts into the point of Svínanes. It is constructed so that it is dry at low tide, while at high tide the water covers it. At the bottom is clay of medium softness, there are also loose stones here and there but they are small enough to be taken away.” (translation by Mjöll Snaesdóttir).

The farm was bought in 1603 by the priest Teitur Halldórsson. It then descended in that family and



Illus. 4 Panorama of the farmstead at Svínanes from the hill behind looking southwards towards Breiðafjörður and showing some of the major buildings

was held in the mid-eighteenth century by Halldór Einarsson (Web source 1). The 1816 census records a population of seventeen living at Svínanes in two households (Web source 2). The nearby farmstead on the west side of the Svínanes peninsula at Selsker was abandoned in 1955 (Illus. 1) and Svínanes itself was abandoned in 1959 when Aðalsteinn Helgason and Guðrún Þórðardóttir, his wife, and their family gave up the farm and moved away.

Site Survey

Farmhouse and adjoining buildings to the east

1. Farmhouse

The farmhouse is a two-storey concrete building constructed in 1943 just a few yards to the east of the site of the earlier house. The earlier site is not readily apparent. According to oral history the earlier building was new when the farmstead was visited by a priest from Flatey in about 1850. The interior of the concrete farmhouse is now derelict, although many of the wooden fittings still survive (Illus 5-7). The corrugated iron roof has been partially blown off by the wind and the concrete structure has suffered from some frost damage.

2. Site of kitchen

Immediately behind the house to the north of the house is the site of a kitchen marked by earthworks.



Illus. 5 Farmhouse from the west in 2007

3. Farm buildings

Two conjoined turf-walled buildings lie to the east of the farmhouse. The nearer is the earliest standing building and was perhaps built about 1900. It was used latterly for smoking meat. The one adjoining it was built in 1954 as a cow house (Illus 8-9). It has a concrete floor and timber mangers and accommodated three cows. It was constructed on the site of an earlier cow house which dated from 1901.

4. Well house

A short distance to the north-east lies a wellhouse with a channel running out of it to the south-east.



Illus 6, 7 The interior of the farmhouse at Svínanes



Illus 8, 9 The partially collapsed structure of the cow house

5, 6. Hay store and silage clamp

The final building lying in line to the east of the house was a hay store constructed in about 1930. It was constructed with turf walls faced in stone. A silage clamp lay to the east.

7. Garden plot

An enclosed plot to the east of the hay store was used first for growing potatoes and subsequently for rhubarb.

8. Dairy and temporary tractor shed

A dairy and temporary tractor shed were constructed of timber and have now been entirely blown down (Illus 10).

9. Stable and hay store

A stable with a hay store lies to the north. The hay store was not used in the decades immediately before the farm was abandoned.



Illus. 10 Dairy and tractor shed



Illus. 11 The ‘German building’ – a large turf-walled building associated with Hanseatic traders

Remains on the southern shore

10. German building

External measurements: 13.1m by 7.6m. Internal measurements: 9.4m by 3.5m.

A rectangular turf-building lies on a gentle slope a short distance from the sea (Illus 11). The entrance is to the south facing the sea. There is some evidence that the walls of the building were faced with stone, although it is so overgrown that this is impossible to confirm. There is some damage or possibly a second entrance on the east wall near the south-east corner.

The identification of this as the ‘German building’ is traditional and it is said that the building served to store goods for traders. The building is of unusual width and is also notable for being built on a slope, which would have been difficult if it had been a house, though, of course, it would not precluded its use for animals. The name of the adjoining cove, *Kumbaravogur*, is notable since this means the ‘cove of the cogs’. A cog was a common type of European trading vessel. The traditional identification and the place-name provide supporting strands of evidence that this building was associated with foreign trade. Cut into the south side of the building is Site 11.

11. Labourers’ building

External measurements: 6.9 m by 4.1 m. Internal measurements: 4.0m. by 1.5m.

A small building is cut into the south-east corner of the German building, and is probably later (Illus 12).



Illus. 12 A turf-walled building used for storing the possessions of the farm-labourers looking west

The walls have internal and external stone-facing with a earthen core. The entrance which lies to the south is now very narrow, but it is possible that it may have originally been across the full length of the building. Before the abandonment of the farm, it was used for storing the possessions of farm labourers.

12. Smithy

External measurements: 8.9 m by 6.6 m. Internal measurements: 5.4m. by 1.7m.

A short distance to the east of Sites 10 and 11 is a turf building with stone-lined interior on the eastern half of the north wall (Illus 13). It was used as a smithy by Bergljót’s grandfather who died in 1917. The door to the south was subsequently blocked

with stone and the west wall removed to provide shelter for a tractor. Subsequently that wall was replaced. The earlier usage of the building is also implied by the name of the headland, Smiðjutangi.

13. Frenchmen's graves

In about 1650, according to oral tradition, a French fishing vessel was wrecked off the coast of Svínanes and some of the sailors, including the captain, were drowned. It is said that the drowned sailors were buried between the farm and the shore. The grave sites are now barely visible, but formerly stood close to a gateway into a field some distance to the west of the Sites 11-12.

14-15. Landing place and nausts

A series of maritime structures were recorded near to the shore to the east of the farmstead. The inlet to the south-east of the farm was used for keeping fishing boats by Bergljót's father and the head of the bay is partially protected by a small stone breakwater (14) (Illus 14-15). The smaller of the nausts lay to the south-west and was used in winter for keeping boats when there was ice on the fjord, according to Bergljót (Illus 16). It could have only accommodated a small boat. It is marked only by a shallow depression. The larger naust has stone-edged walls supporting the base of a turf-building. It appears to cut a further naust to the east which sat on the edge of the cliff.

16. Fish-drying building (*Fiskbyrgi*)

Drystone buildings were commonly used for drying and storing dried fish in the past (Kristjánsson 1985, 289-96). A drystone-building on the exposed headland south of the farmstead was used for this purpose (Illus 17-18). The building is orientated west-east with the door to the west and three small apertures in the east wall to allow wind to blow through. The walls are about 1 metre thick and barely coursed. There is some evidence for rebuilding on the south side where there is some poor, uncoursed work. The wall at the east end is thinner than the side walls and there is some evidence that it has been rebuilt.

17. Naust and capstans

A large, well-built naust faces the third bay, to the east of the farmhouse (Illus 19-20). It was built with drystone, barely coursed walls and has a clear ramp leading to the water. Bergljót says that boats were hauled up on whale-bone runners. There is a timber capstan with steel cable to the east of the naust and beyond that a further setting, evidently for an earlier capstan beyond it



Illus. 13 Smithy, later tractor building with blocked doorway



Illus. 14 Inlet showing the breakwater and nausts. Beyond these on the headland is the fish-drying building (16)



Illus. 15 Breakwater extending into the inlet



Illus. 16 Smaller naust used in the winter when ice was on the fjord



Illus 17 Fish-drying building, view from the west



Illus 18 Fish-drying building, views from the west and south-west



Illus. 19 Capstan and beyond it the stone-walled naust building



Illus. 20 Pseudo-orthophoto of the south-east side of the wall of the naust showing different types of walling, suggesting periods of reconstruction and repair

Kálfhólmi

The island to the south of the farm of Svínanes is accessible dry-shod at low tides. The small island provides some protection to the landing-place at Kumbaravogur from swell from the south. Two sites were recorded on the island.

18. Hide or fold

The first of the islands sites occupies a natural horseshoe of rocks and is a small enclosure or hide

(Illus 21). Bergljót suggests that it may have been a hide for shooting foxes venturing near the farm and eating eider ducks. Alternatively, it may have been a small fold. Above the structure is a cairn of stone.

19. Eider duck nesting box

A second structure recorded was a small nesting box for eider duck recorded towards the west end of the island (Illus 22).



Illus. 21 Hide or fold on Kálfhólmi



Illus. 22 Eider duck nesting box



Illus. 23 The bay at Kumbaravogur with the landing place on the far side and the reef of Kumbaratangi just emerging from the water

Kumbaravogur and west

The main landing place at present is the bay of Kumbaravogur where a natural wall of rock provides a useful point against which boats can be brought up (Illus. 23), and is a convenient point for loading and unloading vessels (Illus. 24). However, the bay does not provide a deep-water landing and at low tide is almost empty. The entry to the bay is difficult for larger ships, so it is doubtful whether it would have provided an anchorage for cogs or other vessel types. It may be significant that the ‘German house’ does not face this bay.



Illus. 24 Loading cattle into the boat at Kumbaravogur when the farmstead was being abandoned in 1959



Illus. 25 The enclosure of Svínabæli projects into the bay at Kumbaravogur. The landing-place is on the right-hand side of the bay out of the picture. The farmhouse is visible in the far distance



Illus. 26 The naust on the south-west of the farmstead, showing Bergljót Aðalsteinsdóttir on the left-hand side



Illus. 27 A hearth used for preparing wool for cloth



Illus. 28 Photograph from the 1950s showing the sheep house

20. Svínabæli

This large enclosure stands on a sharp slope directly above a reef (Kumbaratangi) exposed at low tides in the inlet of Kumbaravogur (Illus 25). The enclosure relies partly for its boundaries on the ridge of rock. It takes its name from the pig enclosure which Geirmundur was supposed to have established at Svínanes after the settlement of Iceland (*Landnámabók*, 58-59). It is surrounded by an earth bank on the west and north sides, and a stone wall on the east. A further earth bank prevents any animals from escaping over the low cliff towards the sea to the south. No entrance was recorded.

21. Naust

A further naust lies to the west of Kumbaravogur. It has stone-faced internal earthen walls. There is a hole at the north end for a cable to haul up boats (Illus 26).



Illus 29 Ruins of the sheep house and hay store



Illus. 30 Ruins of the sheep house and hay store

Features south-west of the farmhouse

22. Hearth

Two large adjoining stones mark the position of an outside hearth used for washing the wool for cloth-making (Illus 27).

23. Sheep house

The farm at Svínanes kept a flock of 200 sheep in the 1940s. The sheep house was built between 1948 and 1950 with stone from the old farmhouse (Illus 28-30). The north wall is better built than the east wall. It was constructed in a combination of concrete and stone which was experimental and not entirely successful. The hay was kept in a storehouse to the north, the roof of which is just visible in Illus. 28 and more clearly apparent in the cover illustration.

24. Sheep dip

The site of the sheep dip was recorded to the north-east of the sheep house.

Other remains

25-27. Sheep shed and sheep folds

At the edge of the homefield were various features associated with sheep-keeping. A milking shed (25) for sheep was situated in the outland beyond the homefield wall on the north slope. It was constructed with a stone-face and earth-core and had not been used in recent years. The area around the sheep shed *nátthagji* or was the night pasture where the sheep were kept overnight.

There was a sheepfold (26) under the mountains where the ewes were kept immediately after lambing and it was perhaps 200 to 300 years old (Illus 31). A later sheepfold was constructed next to the home field wall (27) (Illus 32).



Illus. 31 Sheepfold under the mountains for ewes



Illus. 32 The later sheep fold

Conclusions

The farm at Svínanes is, no doubt, similar to many other abandoned farmsteads elsewhere in Iceland, many of which have a long history of occupation in the same site. There is no farm mound to mark the position of earlier buildings at Svínanes, so we cannot be certain of the location of earlier buildings. It is possible that the farm buildings have not been built on a single spot, but in the same general locality.

The particular interest of Svínanes is that it appears to have been a place used by German traders, if we can accept the evidence of the place-name Kumbaravogur, the oral history memory of the 'German house' and the record of Ólafur Olavíus. Cumulatively, these separate strands of evidence allow us to identify this with some confidence as a trading place. However, it can never have been a major centre for trade and appears to have escaped

any surviving contemporary record. At best it was a minor place to which fishermen on the north side of Breiðafjörður brought dried fish to trade. It may also have been used by those coming over the mountains from Ísafjarðardjúp to the north.

We can compare such patterns of commerce with the larger and well recorded trading site of Bremen merchants at Kumbaravogur in Snæfellsnes which lies at the opposite side of Breiðafjörður. The records there suggest that fish were brought by both land and sea to trade (Hofmeister 2001, 31). Traders on the south side of Snæfellsnes and Hítardalur may have transported fish to Kumbaravogur by sea, but the journey around the west end of the peninsula is very long. It is much more probable that they brought fish by land over the pass through Hjarðarfellisdalur or one of the passes to the east climbing up from Hnappadalur (Gardiner forthcoming). Indeed, there is a reference to timber being brought to Kumbaravogur in Snæfellsnes and then being transported by horses to Hjarðarholt in Dalir (Kristjánsson 1980, 272 citing Árni Magnússon Institute, AM 262 4to). In the same way, the site of Svínanes may also have been reached both by sea and by land from the north.

The bay at Kumbaravogur below the farmstead at Svínanes would not have been suitable for large ships and these must have anchored off-shore. There are few protected bays along the coast here and we should perhaps interpret Svínanes not as a major trading site, but one of a number of minor places visited occasionally by foreign vessels. It is hard to imagine a vessel anchored there for a pro-

longed period without a better anchorage. However, we have to admit that we do not know the role Svínanes served in relationship to the other trading sites in Skálmarfjörður and to the east at Hallgrímsey and Melanes. We should note too that the evidence for trade at those sites is even more vestigial than at Svínanes.

The building known as the ‘German house’ and the site of Svínanes more generally is an interesting survival of an economically important, but otherwise imperfectly recorded episode in Icelandic history.

Acknowledgements

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Illus. 33 The family at Svínanes in the 1950s before the site was abandoned

References

Primary sources

The Book of Settlements; Landnámabók (University of Manitoba Icelandic studies, 1, 1972), trans. H. Pálsson and P. Edwards. Winnipeg.

Diplomatarium Islandicum XVI

Olavius, Ólafur. 1964. *Ferðabók Ólafs Olavins, landsbargir í norðvestur-, norður- og norðaustursýslum Íslands 1775-1777*, II. Reykjavík.

Secondary literature

Callow, C. 2009. Iceland's medieval coastal market places: Dögurðarnes in its economic, social and political context, in J. Brendalsmo, T. Gansum and F.-E. Eliassen (eds), *Strandsteder, Utrikinglingssteder og Småbyer i Vikingtid, Middelalder og Tidlig Nytid (ca. 800-ca.1800)*. Oslo: Novus

Gardiner, M. and Mehler, N. 2007. English and Hanseatic trading and fishing sites in medieval Iceland: report on initial fieldwork, *Germania* 85, 385-427.

Halldórsson, B. 1992. *Orðabók: Íslensk-Latnesk-Dönsk*. Reykjavík.

Hofmeister, A. E. 2001. Das Schuldbuch eines Bremer Islandfahrrers aus dem Jahre 1558. *Bremisches Jahrbuch* 80, 20-50.

Jónsson, Finnbogi. 2007. *Old Ruins from the Sixteenth Century* (privately circulated report)

Kristjánsson, Lúðvík. 1980. *Íslenzkir sjávanrhattir* 1. Reykjavík.

Kristjánsson, Lúðvík. 1985. *Íslenzkir sjávanrhattir* 4. Reykjavík.

Skaptason, Jóhann. 1959. Barðastrandarsýsla. *Árbók Ferðafélags Íslands* 1959, 59.

Vésteinsson, Orri. 2006. Communities of dispersed settlements: social organization at the ground level in tenth- to thirteenth-century Iceland, in W. Davies, G. Halsall and A. Reynolds (eds), *People and Space in the Middle Ages, 300-1300*, 87-114. Turnhout.

Web sources (accessed 29 March 2011)

Web source 1:

<http://histfam.familysearch.org/pedigree.php?personID=I23360&tree=Iceland>

Web source 2:

<http://halfdan.is/mt1816/bardastr.pdf>