

Landscapes of settlement 2002

Reports on investigations at five medieval sites in Mývatnssveit

Orri Vésteinsson ed.



Contributions by Colin Amundsen, Birna Lárusdóttir, Seth Brewington, Ramona Harrison, Thomas McGovern & Orri Vésteinsson

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The picture on the front page is of a chess-piece recovered at Steinbogi

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Introduction

Since 1991 archaeological investigations have been ongoing in Mývatnssveit, NE-Iceland. Initially concentrating on the great hall at Hofstaðir, excavated in 1992 and 1995-2002, the project has since 1996 widened its scope to include an archaeological survey of the region as well as other smaller scale excavations, notably at Sveigakot (from 1999). The excavation at Sveigakot of an extensive sheet midden from the late 9th – early 11th century and a small long house dating to the late 10th – 12th century have put the Hofstaðir material into a new perspective and shown that it makes all the difference to have archaeological assemblages from more than one same-period site to draw up a picture of the social and economic system. In this spirit excavations were carried out at Selhagi and Hrísheimar in 2001 adding substantial animal bone collections to the already large assemblages from Sveigakot and Hofstaðir.¹

In 2002 the Icelandic Research Council (Rannís) gave the project a so-called grant of excellence (öndvegissstyrkur), which is much more substantial than previous grants from the council. Under this three year programme it is aimed to expand the activities of the Landscapes of settlement research programme, both in terms of geographical scope as well as the numbers of sites to be excavated. The aim is firstly to get a clearer picture of settlement patterns and settlement hierarchies in Mývatnssveit in the 9th – 13th centuries; secondly to link the archaeology of the rather marginal Mývatnssveit with the lower valley and coastal settlements in Suður Þingeyjarsýsla; and thirdly to investigate non-settlement sites, such as burials, assembly sites and earthwork complexes and examine their relationship with the settlement sites in the region.

The 2002 season saw continued excavations at Hofstaðir and Sveigakot as well as survey work in Laxárdalur north of Hofstaðir and Reykjahverfi by the coast. Trial excavations were also carried out at Höfðagerði and preliminary observations made on the coastal site Saltvík. These are the subject of separate reports but in this report the results of trial excavations of varying scope in the Mývatn region are presented. The sites are Steinbogi, Brenna, Hrísheimar, Oddastaðir, Stöng and við Víðiker. Hrísheimar is the only

¹ See Orri Vésteinsson ed. (2002): *Archaeological Investigations at Sveigakot 2001, with reports on preliminary investigations at Hrísheimar, Selhagi and Ytri Tunga*, Rv.

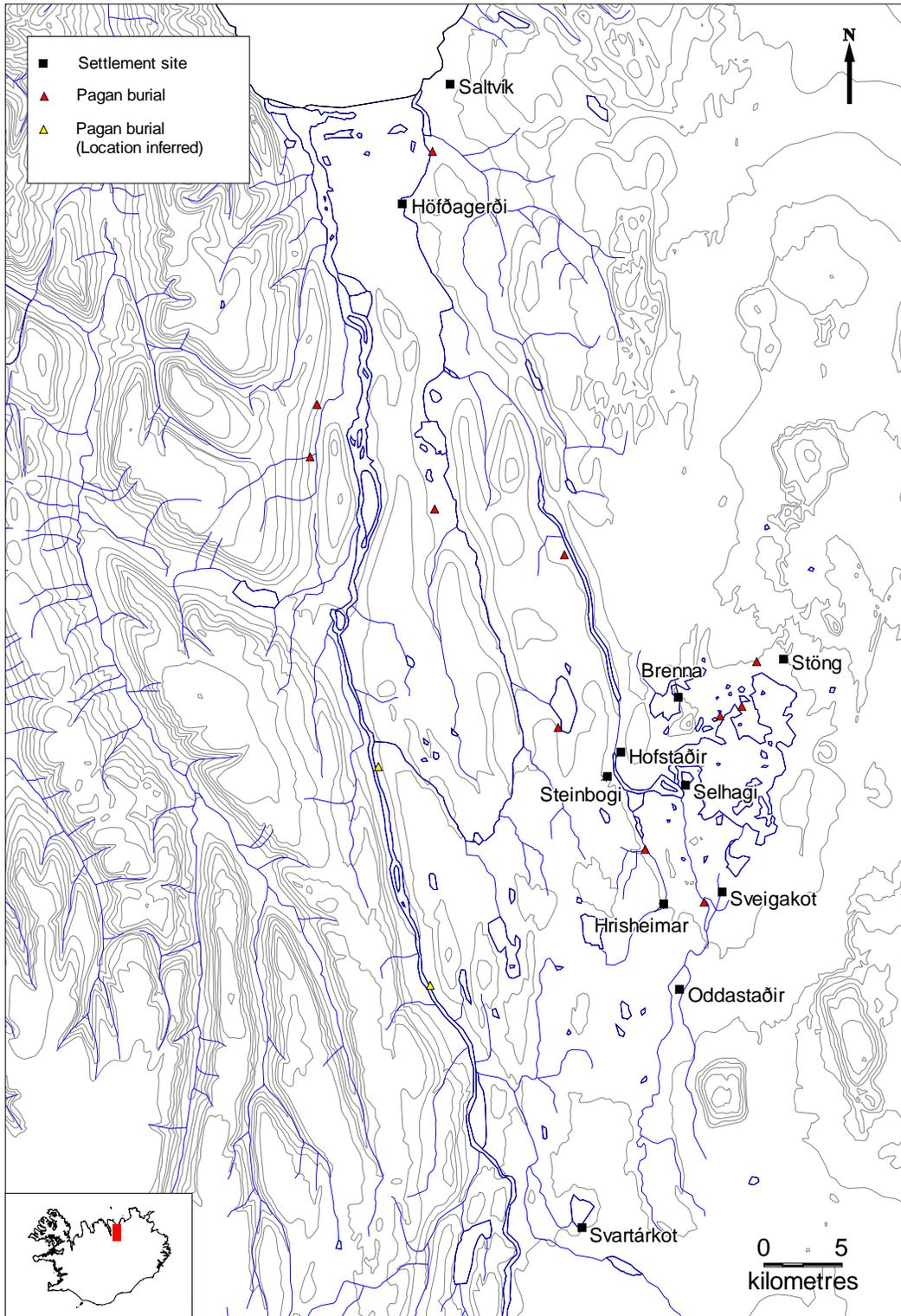


Fig. 1. Map of part of Suður Þingeyjarsýsla showing sites investigated in 2002. Við Viðiker is located just northeast of Stöng

one of these which had been investigated previously. In 2002 only very limited fieldwork was carried out there, focusing on possible burials. This fieldwork was continued in 2003 and will be reported separately. At Steinbogi the investigations were in two parts. On the one hand rescue excavations were carried out on satellite structures because of impending roadworks, the results of which are described in a separate report,² and on the other a research-oriented excavation of the midden was carried out under the auspices of the Landscapes of settlement project.

At the other four sites the investigations consisted of limited trenching and at Oddastaðir and Brenna the sites were mapped anew with a GPS station by Garðar Guðmundsson, replacing the rough sketches which had been made of these sites during field survey in 1997-98. Except for Hrísheimar the investigations at these sites were directed by Orri Vésteinsson. Thomas McGovern directed the search for, and trial excavations of, middens at Brenna, Hrísheimar, Oddastaðir and Steinbogi, assisted by Sophia Perdikaris, Christian Keller and students of the NABO/FSÍ international field school. At Stöng the trench was dug and recorded by archaeology student Birna Lárusdóttir who also co-authors the report. Magnús Á. Sigurgeirsson analysed tephra layers at Brenna, Oddastaðir and Steinbogi. Howell M. Roberts has digitised the sections and prepared them for publication.

Thanks are due to the landowners of Helluvað, Baldursheimur, Grænavatn, Geirastaðir and Reykjahlíð for permission to excavate. In particular the authors would like to thank Ingólfur Jónasson at Helluvað and Finnbogi Stefánsson at Geirastaðir, as well as long-time supporters of the project, Ásmundur Jónsson and Guðmundur Jónsson of Hofstaðir, who lent the use of their boat to get to Brenna.

² Orri Vésteinsson ed. (2003): *Fornleifarannsókn á Steinboga í Mývatnssveit 2002*, Reykjavík.

Orri Vésteinsson:

Archaeological investigations at Steinbogi

Introduction

The site Steinbogi (at 65°35.689 N 17°10.611 W) is situated on a small plateau in the hill-side above River Laxá, where it curves to the north, after flowing westwards from the outlet of Lake Mývatn. It is on the property of Helluvað, one of two small abandoned farm sites along the western bank of Laxá, opposite Hofstaðir.

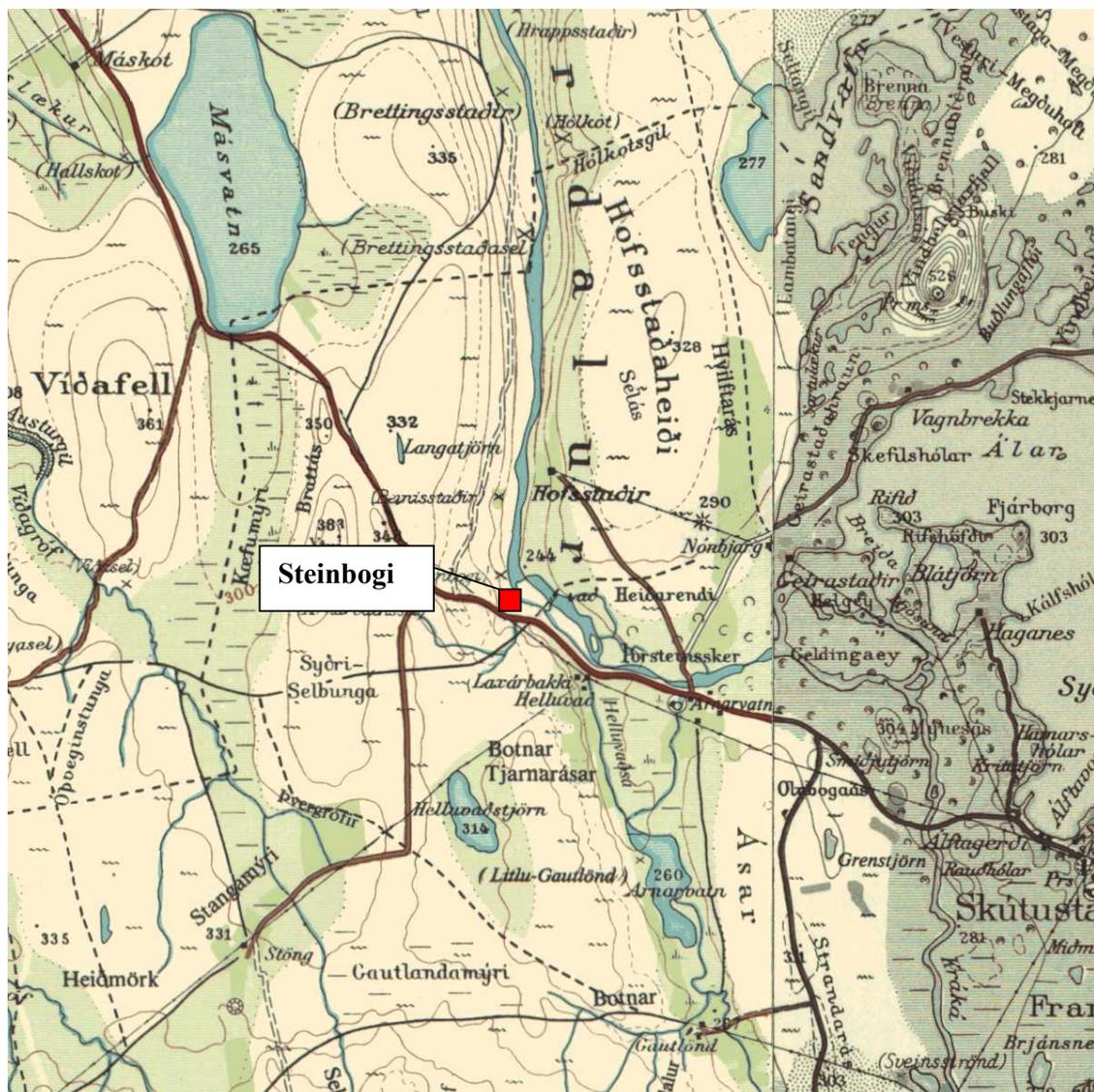


Fig. 2. Steinbogi and environs. Map scale c. 1:100,000.

Steinbogi is first mentioned in the Land register of Árni Magnússon and Páll Vídalín, compiled in 1712. In the entry about the farm Helluvað there is a note on two abandoned farms on the property: "Beinistaðir and Steinbogi are two abandoned farms on this property north of the farm ... on both sites ruins of buildings and boundaries can be seen. Neither place can be occupied again, because they are covered in shrub and there is nowhere else to get hay."³ This suggests that neither of these sites had been occupied in living memory, putting their abandonment back at least before 1600.

In the mid 19th century a winter house for sheep from Helluvað was built on the farm ruin. It is not known whether this was the first re-use of the site, and in fact it seems likely that it has at least intermittently been used from Helluvað which is only 1,3 km away, as a hay meadow, weaning site or a place to overwinter wethers. In the 20th century the infield at Steinbogi has not been covered by shrub, but is in fact good meadow which would have been utilised either for grazing or mowing in former times. Whether this means that the Land register was exaggerating the inhospitable nature of the site or whether the meadow was created as a result of increased activity in the 19th century is difficult to say.

The winter-house for sheep at Steinbogi is remembered in Mývatnssveit lore as one spring (probably close to 1900) the roof caved in under the weight of snow killing all the sheep inside. This may suggest that the location has the disadvantage of snow piling up, putting pressure on the buildings and making the site difficult to live on.

In the 1940s the southern end of the infield, including the infield boundary on a c. 50 m stretch, was buried under a road. In 2002 this road was rebuilt and its line moved further north, burying a still larger portion of the site, including at least one building ruin. In preparation for this work the infield boundary was trenched and a rescue excavation carried out on two buildings, one of which was to disappear under the new road. In the same season research excavations were carried out on the farm mound which is located on the northern edge of the site, at a safe distance from the construction work. These investigations focused on locating and sampling the midden and are described by Thomas McGovern in the following chapter. Two of the test-trenches were extended to get an idea of the structural deposits at the edge of the farm mound. These are described below along with a summary of the results of the rescue excavations.

³ Jarðabók Árna Magnússonar og Páls Vídalín XI, 223.

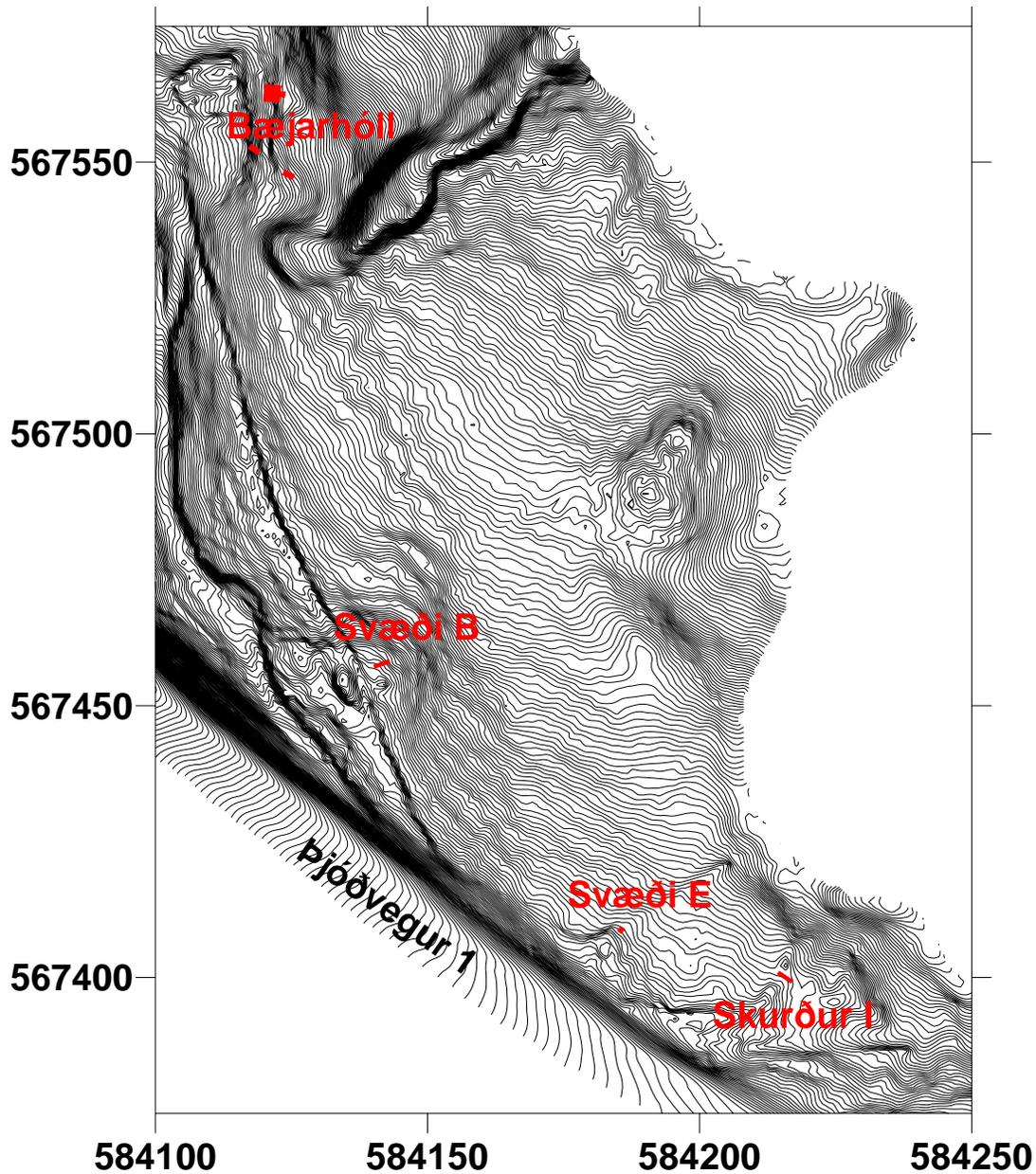


Fig. 3. Steinbogi in 2002

The structures at Steinbogi

The infield at Steinbogi is enclosed at the western and southern sides by a double boundary, turf walls, with a gap of 10-20 m between them. The outer boundary is more winding whereas the inner one is more or less straight. At the western side the boundaries hug the foot of the slope but the southern side is obscured by the 1940s road, but judging from the angle of the boundaries sticking out from under the road, the boundaries under the road will have

followed the contours much as further to the north. In the southeastern corner a brook, called Steinbogalækur, marks the edge of the infield. This brook runs from the south in a wide gully with some grassland along the banks. The brook has its origins in a bog with large peat mines (SP-193:034) – one of very few in Mývatnssveit. The eastern edge of the infield is defined by a sharp edge, with steep slopes running down to River Laxá. The farm mound is at the northern edge of the site although possible traces of a turf boundary were observed beyond it. The infield south of the farm mound is approximately 1,3 hectares in size, some 160 m long from north to south and 80 m wide from east to west, almost trapezoidal in shape.

The farm mound (A) is approximately 30x20 m in size with a 12x10 m rectangular ruin on top, divided in two equally large rooms, no doubt the winter-house for sheep from the 19th century. At the southeastern side of the farm mound there is a natural spring from which a small brook runs in a small gully to the east and into River Laxá. The gully divides the farm mound from the main part of the infield. The farm mound is located quite precipitously, with a steep slope above as well as below (see Fig. 6), but the land flattens out to the south and north on either side.

Some 90 m south of the farm mound a ruin is built onto the inner field boundary (B). This is 9x6 m and upto 2 m deep with very sharply defined walls, especially in the inside. On a small knoll at the edge of the infield there is a small ruin (D), measuring 5,5x4,5 m. Neither one of these ruins has visible entrances.

At the southern end of the infield, partly covered by the 1940s road, a regular hump (E) turned out to be the remains of a building.

Archaeological excavations

At the southern edge of the site a number of trenches were dug in 2002 prior to the new road construction. A trench was cut through the boundary at the southeastern corner of the infield, the short stretch re-emerging from under the 1940s road on the eastern side. The section revealed a turf wall which had been built on top of the V~950 tephra, probably not long after its deposition. At the outer (eastern) edge of the wall there was a 30 cm deep cut, presumably where the turves for the wall had been removed. On both sides of the wall it was abutted by an anthropogenic deposit, interpreted as the remains of field-improvements. On the inside this deposit included the H-1158 tephra in situ. This shows that the wall had been built before 1158, probably long before, and suggests that activity at the site extended beyond that date.



Fig. 4. Steinbogi from the South. The road cuts through the southern part of the site, which is defined by the slightly lighter shade of green. Buildings and infields at Hofstaðir in the background.

The fact that the cut outside the wall had been filled with an anthropogenic deposit may suggest that this wall fell into disuse while the site was still occupied. The anthropogenic deposit is basically a finely laminated layer of brown earth, with specks of the prehistoric tephra H3 – suggesting digging into the subsoil in the vicinity – and some charcoal, possibly suggesting fertilizing with midden material.

Another trench was cut through the inner boundary where structure B is built onto it. In this trench the H-1300 tephra was observed overlying all the anthropogenic deposits which turned out to be somewhat complex. Here the wall – quite distinct on the surface – was only a small lump of upcast built on top of a thick anthropogenic layer which was interpreted as a cultivation horizon. This included specks of H3, charcoal and small fragments of bones. This layer capped a surface deposit, possibly a floor, sitting in a shallow cut. A subsequent excavation of the adjacent structure B showed this to be a later addition, probably contemporary with the wall on top of the sequence, which had cut through the floor. Structure B is a sunken feature, dug down onto a prehistoric tephra where a thick iron pan has formed. The walls were built of turf on the edge of the cut and were only 50 cm wide. This

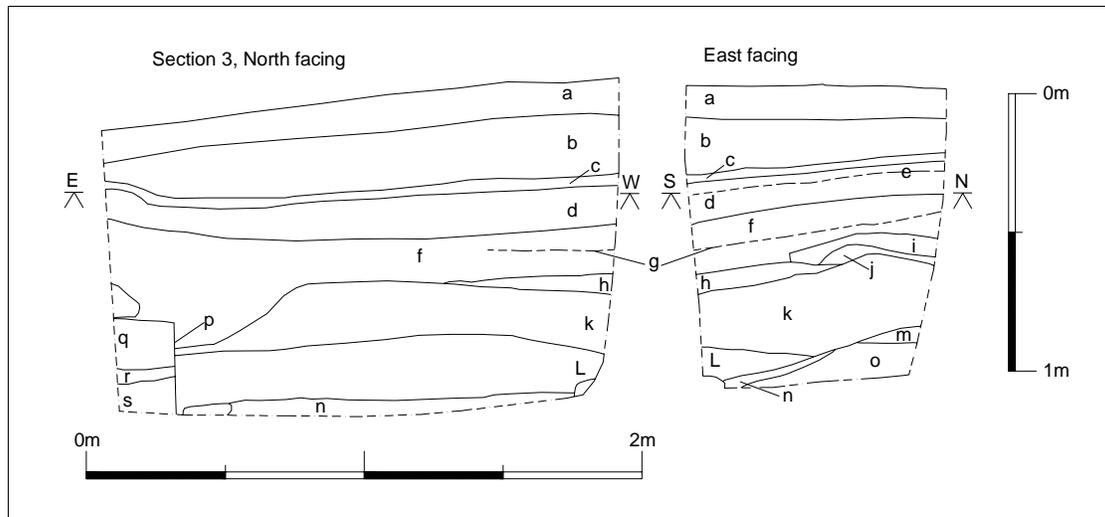
and the absence of post holes or other evidence for occupation or internal woodwork, led to the interpretation that this is a fold or a hay stack. This structure was also capped by the H-1300 tephra, showing that it had been abandoned before that date.

A trench dug into the hump E showed that this was the site of a building. This area was subsequently excavated, revealing a building with two building phases and a later re-use phase, all predating the H-1300 tephra. This building was divided in three rooms or partitions but its southern part was obscured by the 1940s road. The northernmost room had an entrance on the northern side of the eastern wall. South of this room there is another, divided in two narrow aisles by a stone wall, possibly a larder. This structure is interpreted as a sheep house. At one point the northern room was narrowed but the structure seems to have fallen out of use shortly afterwards. When the structure was largely collapsed the northern room was occupied again and a small fire place built in it. Subsequently the room was infilled with rubbish. As elsewhere these deposits were capped by the H-1300 tephra, although this was not as unequivocal as in the other trenches. There is a possibility that the very last stages of dereliction were taking place shortly after 1300.⁴

At the southeastern edge of the farm mound two trenches were dug, originally in order to locate the midden. Of the two the upper and more northwesterly (Trench 5) cut through what appear to be recent turf-collapse layers, but the lower and more southeasterly (Trench 3) was much more informative (see Fig. 5).

As in the other trenches the archaeological deposits in this one were capped by H-1300. In fact most of the activity observed in the trench is below the H-1158 horizon. The H-1158 tephra was found in situ sandwiched between alternate bands of aeolian deposition, midden material and structural debris, suggesting that at the time of the tephra fall, the site was still occupied although this part of it was no longer in use. The H-1158 is found relatively high up in a sequence of midden and aeolian deposits (f, h, i, j) which cap a turf wall (k). This wall is built from the same type of klöbrunnaus turf with a greenish hue as common in the long house at Hofstaðir. This wall is built on top of an earlier, collapsed wall (l) with the same type of turf which in turn overlies a trampled surface layer (n) sitting in a cut (p) – possibly a sunken featured building. This trench therefore suggests upto three phases of building activity and a period of disuse with occupation a short distance away before the deposition of the H-1158 tephra, some activity beyond that date on the farm mound but

⁴ A full report on these trenches and rescue excavations is found in Orri Vésteinsson ed. (2003):



Legend:

- | | | | |
|----|---|----|--|
| a) | top soil | j) | Mid brown silt with H3 = upcast |
| b) | dark brown silt = aeolian and slope wash | k) | Turf wall – klömbruhnaus with LNS |
| c) | “a” tephra (V-1477) | l) | Collapsed turf wall, same sort of material as k) |
| d) | dark brown silt = aeolian | m) | Yellow brown silt with H3 and H4 = upcast |
| e) | H-1300 | n) | Compacted trampling layer on top of natural |
| f) | Mid-dark brown silt = aeolian, with specks of turf, upcast with H3 and lenses of ash, soot and charcoal. Laminated. Includes g) | o) | Natural |
| g) | H-1158 | p) | Cut |
| h) | Similar as f) but more compact and homogenous | q) | Natural |
| i) | Light to dark-grey ash, with charcoal and fragments of bone = midden | r) | H3 |
| | | s) | Natural |

abandonment some time before 1300.

This trench was the only one, apart from the midden, to produce artifacts, a single nail, which was recovered from layer f (SBO 02:054). Layer i also produced a handful of animal bone.

The results of the midden excavations described in the following chapter accord well with the structural excavations. Although no tephra horizons were observed in the midden unit, the artifacts – particularly a post-Viking age type of chess piece (SBO 02:047) – and two



Fig. 6. The farm mound at Steinbogi from SW. The sieving frame shows the location of the midden unit and the spoil heaps from the trenches at the southeastern corner of the mound can be seen at the far right.

radiocarbon dates, 875 ± 40 and 870 ± 40 BP, suggest a date for the midden of the late 12th to early 13th century.⁵

Conclusions

The available evidence suggests that Steinbogi was established no later than the second half of the 10th century and was occupied down to the 13th. While undoubtedly a small farm it is nevertheless identified as a farm, rather than a shieling or a seasonal out-station. This can be inferred from the structures, exhibiting the whole range normally associated with farms, but primarily from the archaeofauna which clearly shows the on site consumption of all parts of the expected domestic and wild animals.

The excavation of a part of a sheep house at Steinbogi is an important addition to the archaeological literature of Iceland. Steinbogi is only the second medieval site where such a

⁵ AA-52498 (GU-9737): 875 ± 40 BP, 13C/12C ratio: -21.40%. Cal 1 σ AD 1150-1220 (43.9%), 1040-1090 (15.2%), 1120-1140 (9%); Cal 2 σ AD 1030-1260. AA-52499 (GU-9738): 870 ± 40 BP, 13C/12C ratio: -20.50%.

structure has been excavated – the other being Þórarinsstaðir in Hrunamannafréttur – and it may reflect the growing importance of sheep in the post-Viking age economy exhibited by the Steinbogi archaeofauna.

The location of Steinbogi, clinging as it does to a steep slope, with hardly any room for expansion, suggests that this was always a minor site. And while too much weight should not be attached to the dating of the infield boundary to the late 10th century – occupation may have started much earlier – it does make sense that such a marginal place was only being occupied towards the end of the settlement process, once all other farm land in the vicinity had been occupied. The occupation of such a place may in fact be taken as evidence for the success of the first 2-3 generations of settlers in the Mývatn region. A small farm in this location suggests population pressure and/or economic expansion – or at least economic vitality – and may help us to understand why a political centre was established across the river at Hofstaðir at much the same time.

Cal 1 σ AD 1150-1230 (47.5%), 1120-1140 (8.5%), 1060-1090 (12.3%); Cal 2 σ AD 1030-1260.

Midden Investigations at Steinbogi – field report

Introduction

During the 2002 field season of the *Landscapes of Settlement Project* (directed by *Fornleifastofnun Íslands* with collaboration by the NABO cooperative) the CUNY team was tasked to locate and excavate midden deposits associated with the small abandoned farm Steinbogi in Mývatnssveit. The midden team located an extensive midden deposit up to 75-80 cm thick in front of what appears to be the main house mound. A 3 x 3 m midden unit K was begun, and carried through to subsoil in a small 25 cm x 1 m sondage. Significant amounts of well preserved animal bone were collected, along with artifacts suggesting a medieval date for the majority of the deposit (including the games piece illustrated on the front page of this report). The midden is not deposited upon an undisturbed natural surface, but rests on what were probably extensive turf cuttings that have been carried to the surface of the prehistoric H3 tephra. There are no other in situ tephra visible, even the thick 1477 tephra seems to have been removed by later turf cutting. However the surviving midden deposits are quite rich in well preserved bone and artifacts, including a single sided comb fragment roughly dating the main context to c. 1200 AD. The deposit is well worth further investigation and should provide a welcome comparison to later phases of the other Mývatnssveit archaeofauna.

Midden Location Strategy

Phase 1 Investigations- Coring Work (July 22-24) involved extensive use of an Oakfield tube-type soil corer around the presumed farm mound visible beneath a 19th century sheep house (structure A) on top of an older set of structures (structure B). The team consisted of Dr. Sophia Perdikaris (Brooklyn College CUNY), CUNY Graduate Center doctoral student Matt Brown, NSF REU undergrads (Brooklyn College) Jennifer Braun & Yekaterina Krivogorskaya, and Dr. Tom McGovern (Hunter College CUNY). The soil corer allowed for relatively non-destructive probing below the thick sod covering the site, and we attempted to push all cores to the distinctive thick creamy prehistoric H3 tephra to ensure that we had

penetrated all cultural layers. A total of 43 cores were taken and recorded, allowing a generalized picture of deposition around the farm mound to be built up. The coring transects ran down slope from the possible structures visible on the surface, and were generally lines of cores ca. 5 m apart. Coring points were marked with numbered wire flags for location using the backpack Trimble GPS system.

The cores revealed that there was little or no cultural material in or around three circular depressions to the NW of the farm mound, leaving the function of these depressions unclear. Cores directly in the center of the depressions produced no floor material or any clearly cultural deposits, and no cultural material was present in any cores directly outside. The coring program around the main farm mound was initially only a little more successful. It is clear that there is no significant accumulation of cultural materials along the edge of the terrace above the Laxá, or along the edge of the small stream rising just SE of the farm mound (both possible midden dump areas based on other sites). The lower slopes of the hillside below the farm mound 10-20 m from the main structure are not entirely free of evidence of human activity, as we repeatedly found few traces of charcoal flecks visible in layers below the 50-70 cm thick natural sod and brown andisol overburden. We also found evidence of turf cutting in an area on the terrace below the farm mound, with the distinctive H3 prehistoric tephra appearing several times in a single core due to local disturbance. These cultural indications did not however have the characteristic signature of an Icelandic midden (concentrations of wood and peat ash, wood charcoal, burnt bone), and appeared to represent only a diffuse evidence of human activity in the local area.

Three localities presented a different picture. The first of these was on the middle terrace just uphill from the source of the stream to the SE of the farm mound. Here cores 10 & 11 indicated deeply stratified banded deposits extending down to 150 cm below surface. This area was sampled by Trench 3 (described in the preceding chapter). The second was at the edge of the terrace supporting the apparent main farm ruin, where deep cultural deposits turned out to be mainly structural. The third was directly in front of the main ruin area, and did produce a stratified midden deposit.

Phase 2 Test Pits: In the three areas where cores indicated deep stratified cultural material below the brown andisol sterile overburden we dug 1 x 2 m test pits to investigate the nature of the deep deposits indicated (July 23-25). Given the depth of deposit (up to 2.2 m) a smaller test pit size would be unproductive (the “telephone booth” problem). The first midden test pit (Trench 3) encountered a small amount of grey ash and bone, but it quickly became apparent

that this was only a small lens overlying a turf wall construction. We turned the test pit over to the structures team at this point, see preceding chapter.

A second set of cores located at the edge of the farm mound about 10 m uphill from Trench 3 indicated deep stratified deposits extending for nearly 2 meters below surface. We opened a second test pit (Trench 5) and quickly encountered a thick construction of layers of turf, grass horizons, and only a very limited amount of bone and charcoal. This deposit remains unexplained, but it appears to be associated with a sustained effort to level the area immediately around the farm by piling up turf cut nearby. It is not a midden deposit in the sense of a stratified refuse pile, and we again turned the further investigations of this unit over to the structures team.

Cores 42-43 directly in front of (NE of) the main structure wall also turned up layers of cultural materials, and these looked more like normal midden deposits. Trench 6 (2x1 m) revealed dense concentrations of bone, charcoal, and a few artifacts from clearly stratified deposits. These findings appeared to justify a larger unit to better understand the deposits and to make collections. We thus laid out a larger 3x3 m midden excavation unit (Unit K) roughly parallel to the main axis of the house mound, incorporating the SW half of Trench 6.

Midden Excavation

Between July 26th and August 1st we began stratigraphic excavation of the midden deposits revealed by cores 42 and 43 and by Trench 6. Using Trench 6 as center, we set out a 3 x 3 m open area excavation unit, unit K. Unit K has a numeric grid system following FSÍ conventions, with origin point (1200/500) at the SW corner of the unit. The grid takes in the W square of Trench 6 but not the eastern, which was left as an access point and sampling square for whole soil samples (collected from contexts 02, 03, 05 Aug 1st). The effect of the layout is to move the excavation unit westwards (upslope, closer to the structure), in an attempt to include more of the earlier phases of the midden deposit. The Unit K layout is as below:

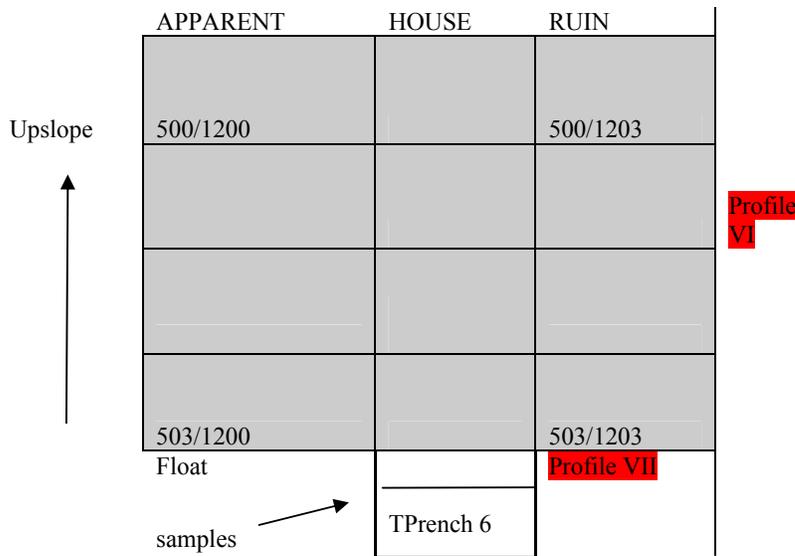


Fig. 7. Layout of unit K.

Description of Midden Deposits at Steinbogi

Stratigraphic Truncation: The unit K excavations uncovered extensive layers of midden deposits in clearly undisturbed stratigraphic position (contexts 002, 005, 007, 008, 009, 010) which were locally very rich in well preserved mammal, bird, and fish bone and which generated a number of artifacts of broadly medieval date. In these respects the SBO deposit is very similar to other middens investigated in the Mývatn region (HST, SLH, HRH, and SVK).

However the SBO midden deposit is different in character from any of the other Mývatnssveit midden deposits in that it appears to have no *in situ* tephra dating to the historic period either above or below the stratified midden material. The only *in situ* tephra appears to be the distinctive thick creamy H3 prehistoric tephra below the cultural deposit, and this is now in direct contact with the lowest midden layers. We are thus missing substantial natural (and possibly cultural) deposits between H3 and the lowest observed midden layer (context 10). Not only is the bottom of the deposit missing, but we appear to be missing natural and probably cultural deposits above the stratified midden as well. No sign of the thick and widespread 1477 tephra was apparent in any of the long profiles of the K unit, nor were any of the other local post – Landnám tephra immediately apparent. Instead, there is a wide spread band of 10-15 cm thick brown deposit (context 003) between the modern turf layer (context 001) and the first clearly *in situ* midden layer (002). This context does contain a few scattered bones in fair to poor condition and a lens of ash, charcoal and bone (context 006), but does not seem to be *in situ* midden. Something very similar to 003 appears in most of the cores

taken around the structure area, and it appears to underlie the modern turf over much of this area. We suspect that this is in fact a mixed deposit infilling turf cuttings that have removed both the later tephra and (probably) the uppermost portions of the midden deposit. We thus seem to have a truncated deposit that may be difficult to date through tephra. However, the band of midden that remains intact appears productive and the site has considerable importance for further investigation.

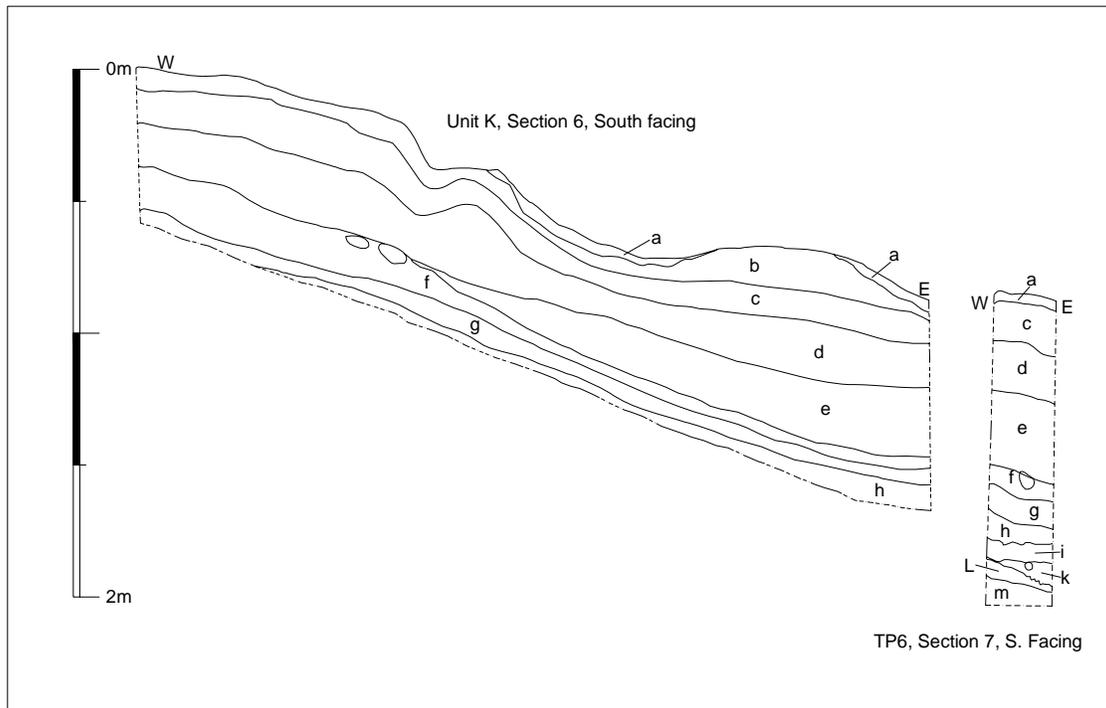


Fig. 8. Sections 6 and 7, Unit K

Profiles of the N sections of the K unit (section 6) and of a 25 cm wide sondage in the NW corner of Trench 6 taken to subsoil (section 7). Note the steep slope and the change in bedding angle at context 002. This context has been richest in bone concentration and has also produced a single sided composite comb fragment (SBO 02:043) and also a haddock bone chess piece (SBO 02:047). More bone was recovered from the base of the slope (502/1200-03 area) than from higher up the slope, but some bone and artifacts were present across the whole unit. A neonatal cattle innominate fragment was collected for radiocarbon analysis from context 002, and other samples should be selected from the bone bags.



Fig. 9. Test pit 6 is opened around core 42. Laxá river valley and the site of Hofstaðir are visible in background.



Fig 10. The test pit 6 rapidly reveals well stratified midden materials, requiring a larger excavation unit for effective observation and recovery.

- 01 modern turf
- 03 mixed infill
- 02 in situ midden layer
- 04 in situ midden layer (NB: this is a small context and does NOT appear in sections)



Fig. 11. Following standard NABO/FSÍ practice, all midden material is sieved through 4mm mesh, with a sub-sample retained for floatation. Most artifacts as well as small bones are in fact recovered in the sieves.



Fig. 12. NW corner (uphill) of the Unit K at the level of context 07. Note the thick modern turf and the broad band of mixed infill (03) below.

- 01= turf
 - 03= infill w/charcoal flecks
 - 05= upper midden, has some structural turf and flecks of displaced H3 tephra.
 - 07= Midden layer.
- (scale 30 cm)

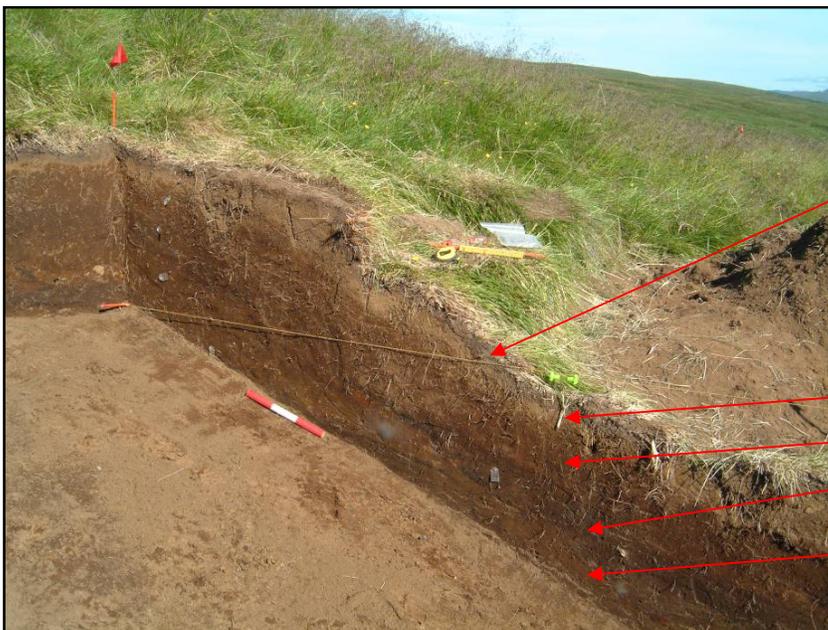


Fig. 13. View of section 6 looking NW, with level line in place indicating the extreme slope of the deposits.

- 001 turf
- 003 infill
- 002 Midden
- 007 Midden

Summary and recommendations

While the midden deposit at Steinbogi is somewhat truncated by extensive turf cutting, and probably does not extend far into the early settlement period, it is nevertheless an important archaeological resource. The deposits appear to date to the period around 1200 (based on single sided comb and lack of biperforated metapodials) and are thus broadly contemporary

with the final phases at Sveigakot. The deposits also provide a view of the economy of a small and ultimately unsuccessful farm in the Laxá drainage within sight of Hofstaðir, adding an important dimension to our understanding of regional patterns. The midden deposits in the area around unit K seem rich in bone and artifacts (53 registered finds from the brief 2002 work) and it will be a straightforward project to expand the present unit to N, S, and E. Work at Steinbogi could easily be integrated into ongoing work at Hofstaðir and could provide useful student training as well as expanding bone and artifact collections and improving our understanding of the deposit as a whole.

An Early 13th c Archaeofauna from Steinbogi⁶

Introduction

In 2002 a rescue excavation of the small site of Steinbogi in the Mývatn district of N Iceland produced an archaeofauna datable to the late 12th-early 13th c. This collection at present is the only quantifiable archaeofauna in this time period for the district, and provides important comparative material for both the older 9th-11th archaeofauna from the region and the better documented early modern period. The collection was dominated by caprines, nearly all of whom were probably sheep, and pig and horse consumption appears to have halted by this date. Both local freshwater fish and imported cod-family fish were exploited and small numbers of birds were taken. The collection appears to represent a transition between trends visible in the early 12th c archaeofauna and the record of early modern agricultural practice in Mývatnssveit.

As described in the previous chapter the midden team located an extensive midden deposit up to 75-80 cm thick in front of what appears to be the main house mound. A 3 x 3 m midden unit K was begun, and carried through to subsoil in a small 25 cm x 1 m *sondage*. Significant amounts of well preserved animal bone were collected, along with artifacts suggesting a medieval date for the majority of the deposit. All excavated soil was dry sieved through the standard 4mm mesh used in the *Landscapes of Settlement* project, with an approximate 3% retained as whole soil samples for later flotation. The midden is not deposited upon an undisturbed natural surface, but rests on a surface disturbed by extensive earlier turf cuttings that have been carried to the surface of the prehistoric H3 tephra. There are no other *in situ* tephra visible, even the thick 1477 tephra seems to have been removed by later turf cutting. While the farm itself may extend to the Viking age, the animal bone collection reported here thus comes from only a fairly narrow temporal horizon and does not represent a continuous record of economic change at this small farm. However, the substantial archaeofauna collected does allow for a useful reconstruction of patterns during one phase of

⁶ A product of the North Atlantic Biocultural Organization (NABO) Research Cooperative and the Leverhulme Trust Project Landscapes Circum Landnám. CUNY Northern Science and Education Center Report No. 11.

the occupation of Steinbogi and provides a solid basis for comparison with other archaeofauna recovered from the area.

Dating

Volcanic tephra normally helpful in dating Mývatnssveit sites had been removed both below and above the bone-bearing layers at Steinbogi by turf cutting. The gamesman illustrated above resembles post-crusade chess pieces common throughout Europe in the 12th-13th c more than one of the older Viking age gamesmen recovered from 10th-11th c deposits at Sveigakot and Hofstaðir. Unlike wooden or ivory continental examples, this gamesman was not turned but instead carefully hand-carved to resemble a lathe-turned figure. A 2 cm long segment of a single sided composite comb plate was also recovered, and would be conventionally dated to before AD 1200 in Scandinavia, but the small size and abraded edges of the fragment recovered suggests the possibility of residuality or redeposition. Other finds included whetstones, worked bone, and iron objects with wide chronological span of use.

Two neonatal cattle bones from the same context (002) were submitted for AMS radiocarbon assay to the SURRC laboratories in East Kilbride, and the results are presented in table 1 below.

Lab Reference #	¹³ C/ ¹² C ratio	radiocarbon age	Calibrated 1 Sigma	2 Sigma
STEINBOGI				
AA-52498 (GU-9737)	-21.40%	875+/- 40 BP	AD 1150-1220 (43.9%), 1040-1090 (15.2%), 1120-1140 (9%)	AD 1030-1260
AA-52499 (GU-9738)	-20.50%	870+/-40 BP	AD 1150-1230 (47.5%), 1120-1140 (8.5%), AD 1060-1090 (12.3%)	AD 1030-1260

Table 1. Radiocarbon dating of two neonatal cattle bones from the Steinbogi midden.

These closely consistent radiocarbon dates suggest an occupation spanning the late 12th-early 13th c. As stratigraphy suggests that the excavated midden deposit was created over a fairly short period, it seems reasonable to treat the contexts as a single analytic unit datable to the years on either side of AD 1200.

Laboratory Methods

Analysis of the collection was carried out during November-December 2003 at the Brooklyn

College and Hunter College Zooarchaeology Laboratories and made use of extensive comparative skeletal collections at both laboratories and the holdings of the *American Museum of Natural History*. All fragments were identified as far as taxonomically possible (selected element approach not employed) but most mammal ribs, long bone shaft fragments, and vertebral fragments were assigned to “Large Terrestrial Mammal” (cattle-horse sized), “Medium terrestrial mammal” (sheep-goat-pig-large dog sized), and “small terrestrial mammal” (small dog-fox sized) categories. Only elements positively identifiable as *Ovis aries* were assigned to the “sheep” category, with all other sheep/goat elements being assigned to a general “*caprine*” category potentially including both sheep and goats (only one goat bone was in fact positively identified from this collection). Fish identifications follow the most current *ICAZ Fish Remains Working Group* recommendations, with only positively identified fragments being given species level identification (thus creating the usual large cod-family or salmon-family categories as well as a substantial number of unidentified fish bones). Following NABO Zooarchaeology Working Group recommendations and the established traditions of N Atlantic zooarchaeology we have made a simple fragment count (NISP) the basis for most quantitative presentation. Measurements (Mitoyo digimatic digital caliper, to nearest mm) of fish bones follow Wheeler & Jones (1989), mammal metrics follow Von Den Dreisch (1976) and mammal tooth eruption and wear recording follows Grant (1982). Digital records of all data collected were made following the 7th edition NABONE recording package (Microsoft Access database supplemented with specialized Excel spreadsheets, see discussion and downloadable version at www.geo.ed.ac.uk/nabo) and all digital records (including archival element by element bone records) and the bone samples are permanently curated at the *National Museum of Iceland*. CD R versions of this report and all archived data are also available on request from nabo@voicenet.com.

Overview of Species Present

Table 2 provides an overview of the Steinbogi archaeofauna including both identified (NISP) bone fragments and those that could only be identified by family and general size range.

“Large terrestrial mammals” are cattle/horse sized fragments, “Medium terrestrial mammals” are sheep/goat/pig/large dog sized fragments, while “unidentified mammal fragments” are bits of bone scrap identifiable only as mammalian. While the collection is not as large as those currently excavated from Sveigakot and Hofstaðir, it is well above the informal NABO quantification threshold of 1,000 NISP and appears to present internally consistent patterning. As is usual with sieved collections the majority of the bone fragments were too small to

Domestic Mammals	1,083
Cetacea	1
Birds	59
Fish	151
Mollusca	8
<i>TOTAL NISP (Identified fragments) =</i>	1,302
Medium Terrestrial Mammal	1,381
Large Terrestrial Mammal	27
Unidentified Mammal Fragments	4,165
<i>TOTAL TNF (all fragments) =</i>	6,875

Table 2. Overview of the Steinbogi archaeofauna.

assign to useful taxonomic level, but most clearly derived from the domestic mammals whose remains make up most of the identified fragments.

Taphonomy

Tables 3-5 summarize the evidence for some of the many taphonomic forces that differentially affect the survival of animal bone in different archaeofauna (Lyman 1994) and provide a comparison between the Steinbogi collection and with archaeofauna from Finnbogastaðir (rural 18th c site), from Tjarnargata 3c in downtown Reykjavík (proto-urban 18th-early 19th c site), and from Sveigakot in Mývatnssveit (rural mid 10th c site) all analyzed by the same team and recorded using the same methods (Edvardsson et al 2004, Perdikaris et al 2002, McGovern in Vésteinsson 2003). Bone fragmentation categories (table 3) are closely similar in the three rural sites, with most bone fragments clustering in the 1-5 cm size range. The presence of a higher proportion of larger bones in the urban context of Tjarnargata 3 c may reflect a somewhat less complete processing for marrow extraction.

<i>Fragment size</i>	Finnbogastaðir		Tjarnargata 3 c		Steinbogi		Sveigakot "M"	
	Count	%	Count	%	Count	%	Count	%
<i>Up to 1 cm</i>	1,450	19.55	208	6.14	1,258	18.46	1,505	20.65
<i>1 cm- 2 cm</i>	2,605	35.13	423	12.49	3,037	44.56	3,240	44.45
<i>2 cm-5 cm</i>	2,606	35.14	1,146	33.84	1,924	28.23	2,247	30.83
<i>5 cm-10 cm</i>	660	8.9	1,117	32.98	495	7.26	225	3.09
<i>>10 cm</i>	94	1.27	493	14.56	102	1.50	70	0.96

Table 3. Bone fragmentation in four Icelandic archaeofaunas.

Table 4 presents the relative proportions of burnt and unburnt bone fragments of all taxa from the same four sites. In this case the Settlement age site of Sveigakot shows a higher percentage of burnt bone (especially of white calcined bone exposed to the most prolonged intense heat) as well as a higher overall proportion of burnt bone (ca 18% vrs 2-5% of total). This pattern is consistent in comparisons of all early (9th-11th c) Icelandic sites with later medieval and Early Modern collections. One possible explanation is a change in hearth form and location interacting with patterns of domestic refuse disposal. In much of the N Atlantic centrally placed open long fires were replaced by much more formally constructed ovens placed in corners during the 12th c (Bigelow 1985). It is possible that as it became less convenient for diners to toss bones directly into the open fire the proportion of strongly burnt bone declined. Perhaps significantly, far less fire cracked rock was observed during excavation at Steinbogi than at the 9th-12th c sites in Mývatnssveit, suggesting that a transformation in cooking practices and foodways from the Settlement Age may have already taken place.

<i>Burning</i>	Finnbogastaðir		Tjarnargata 3 c		Steinbogi		Sveigakot "M"	
	Count	%	Count	%	Count	%	Count	%
<i>Unburnt</i>	7,146	96.39	3,135	92.56	6,694	98.21	5,005	81.42
<i>Blackened</i>	26	0.35	114	3.37	31	0.45	157	2.55
<i>White (calcined)</i>	242	3.26	79	2.33	91	1.34	971	15.8
<i>Scorched</i>	-	0	59	1.74			14	0.23

Table 4. Degree of burning in four Icelandic archaeofaunas.

Table 5 presents the frequency and type of animal tooth marks observed on bone fragments from Steinbogi and our comparative archaeofauna. As usual, most bone fragments show no definite tooth marking, and what marks there were at Steinbogi were characteristic of canid gnawing presumably by domestic dogs. In Greenlandic archaeofauna, up to 30% of bone fragments show dog tooth marks, suggesting some significant differences in dog numbers and management in these two medieval Scandinavian settlements.

<i>Gnawing</i>	Finnbogastaðir		Tjarnargata 3 c		Steinbogi		Sveigakot "M"	
	Count	%	Count	%	Count	%	Count	%
<i>None</i>	7,365	99.81	69,426	99.94	6812	99.94	7,275	99.81
<i>Dog</i>	11	0.15	27	0.04	4	0.06	14	0.19
<i>Rodent</i>	2	0.03	13	0.02	-	-	-	-
<i>Dog & Rodent</i>	1	0.01	2	0.01	-	-	-	-

Table 5. Gnawing in four Icelandic archaeofaunas.

Domestic Mammal Relative Abundance

Domestic mammals make up the majority of the bone fragments, and almost certainly also comprise most of the fragments only identified as medium or large terrestrial mammal. Table 6 presents the NISP counts and relative percentages of these species. Note the absence of pig and horse bones, both present in substantial numbers in earlier archaeofauna from the district.

<i>Scientific Names</i>	<i>English Common Names</i>	<i>NISP Count</i>	<i>% Domesticates</i>
<i>Bos taurus</i>	Cattle	47	4.34
<i>Equus caballus</i>	Horse	0	
<i>Canis familiaris</i>	Dog	xx	present, canine tooth marks
<i>Sus scrofa</i>	Pig	0	
<i>Capra hircus</i>	Goat	1	0.09
<i>Ovis aries</i>	Sheep	163	15.05
<i>Ovis or Capra sp.</i>	Caprine	872	80.52
Total		1083	

Table 6. Domestic mammals in the Steinbogi archaeofauna.

As the table indicates, the Steinbogi domestic mammals were dominated by Caprines, which were nearly all sheep. Unlike the 9th-12th c Mývatn archaeofauna, horse bones and pig bones are completely absent. The ratio of cattle to caprine bones in the collection is approximately 1: 22. In 1710, the mean cattle to caprine ratio for all of Mývatn was approximately 1:24, and the district had become known as a sheep raising region.

Figure 14 presents a comparison of this caprine to cattle ratio for a series of archaeofauna from Iceland, arranged from the earliest (late 9th-early 10th c) collections down to the 11th-12th c archaeofauna, with Steinbogi, two high medieval layers at Svalbarð in and the mean of the Jarðabók Mývatn farms on the far right (higher bar indicates relatively more caprines).

As the graph illustrates, most pre-13th c sites in both N and S Iceland had caprine to cattle ratios somewhere between two caprine per cattle up to about six caprines per cattle bone. After ca AD 1200 in Northern Iceland (but not in the south) there is a sharp alteration in relative proportions of what had become the two main domestic mammals. The caprine to cattle ratio of Steinbogi thus is profoundly different from earlier farming patterns in the district, but falls squarely within the pattern of later medieval Svalbarð farm and the 18th c land register data.

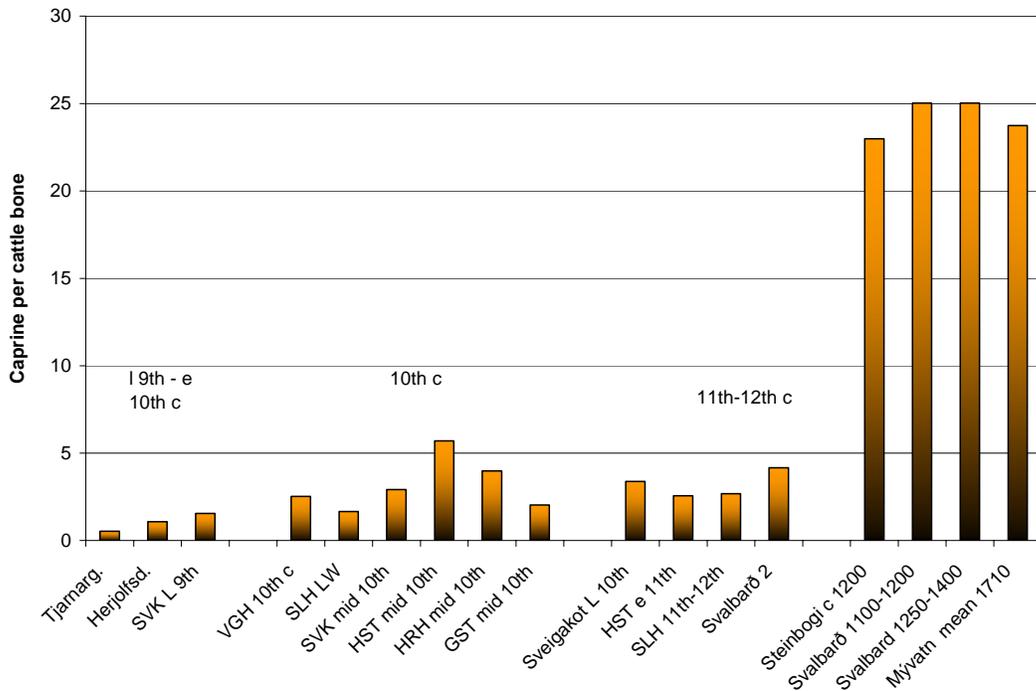


Figure 14. Caprine/cattle ratios by period in Icelandic archaeofaunas.

The ratio of sheep bones to goat bones also appears to undergo a major shift by the time of the Steinbogi deposits were created. Figure 15 illustrates the shifting ratios of sheep to goats (higher bar is relatively more sheep) in our available N Icelandic collections for this period. While the graph is something of a statistical artifact (a single goat bone was identified vrs 163 sheep at Steinbogi), it does make clear that the trend noticeable at the site of Sveigakot of steady increase of sheep relative to goats ca. 875-1100 (from about 2 : 1 to 13 :1) continued into the 13th c. By the 18th c, a few goats continued to be kept in the Mývatn district, but sheep completely dominated the caprine species as in the rest of early modern Iceland. Again, it would appear that stock keeping trends typical of later history in the region are already present at Steinbogi.

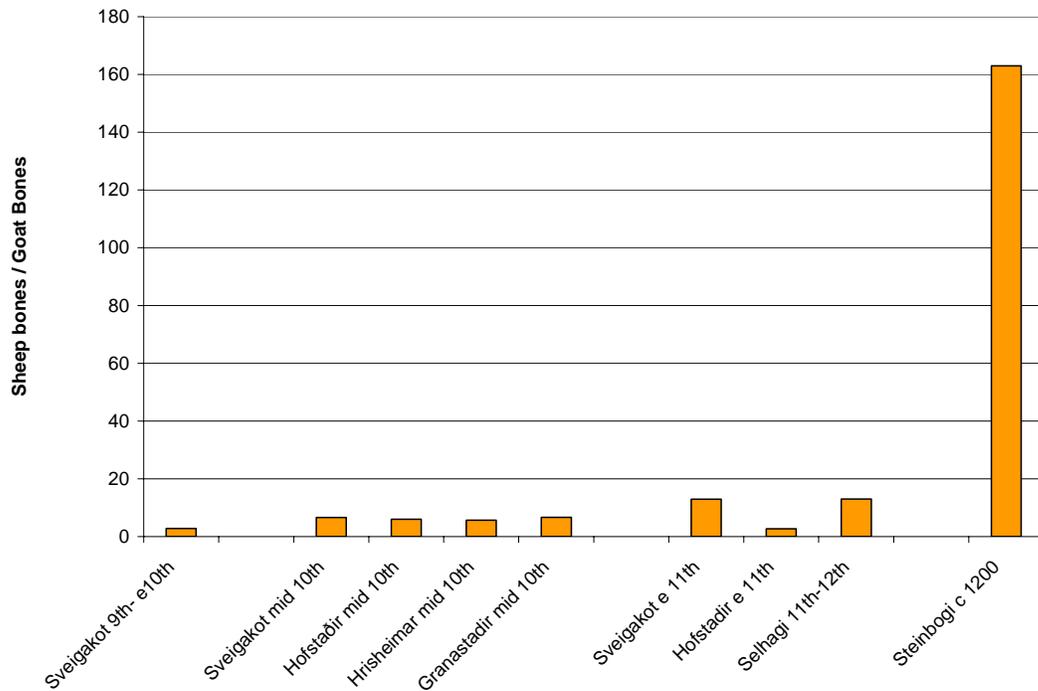


Figure 15. Sheep/goat ratios by period in Icelandic archaeofaunas.

Age Reconstruction of Domestic Stock

Neonatal Bone Fragments. The zooarchaeological investigation of past farming strategies involves both assessment of the relative abundance of bones of different taxa and (where possible) a reconstruction of the age of death of domestic stock. These reconstructed mortality profiles have traditionally been used to infer the harvest strategy of the ancient farmers and their intended animal products (milk, meat, wool, hides). One approach is to count the number of bones coming from clearly newborn or late fetal animals (neonatal) relative to adult and older juvenile bones. This only separates out the distinctive bones of the very youngest animals, but it has the advantage of including virtually all the bones of the skeleton rather than focusing upon selected elements or tooth rows (which are necessarily more rare). Table 7 presents the relative percentages of these neonatal bones for cattle and caprine at Steinbogji. While sample size for cattle bones is only moderate, the typical contrast between high rates of neonatal death in cattle and low rates in sheep is evident. As Halstead (1998) has argued, such patterns can usually be interpreted as reflecting a dairy cattle herding pattern.

Neonatal bone	Count	%	
Cattle	11		23.40
Caprine	12		1.16

Table 7. Relative percentages of neonatal bones for cattle and caprine at Steinbogi

Cattle tooth rows are entirely absent from the Steinbogi collection, making it impossible to attempt to infer age of death from tooth eruption or wear. Similarly there are too few intact long bone ends to allow useful reconstruction of proportions of fused or unfused epiphyses (though at least one cow survived to see its distal tibia fuse at ca 3.5-4 years). Sheep bones are far more abundant in the Steinbogi collection and permit some age reconstruction based on dental eruption, tooth wear, and long bone fusion rates.

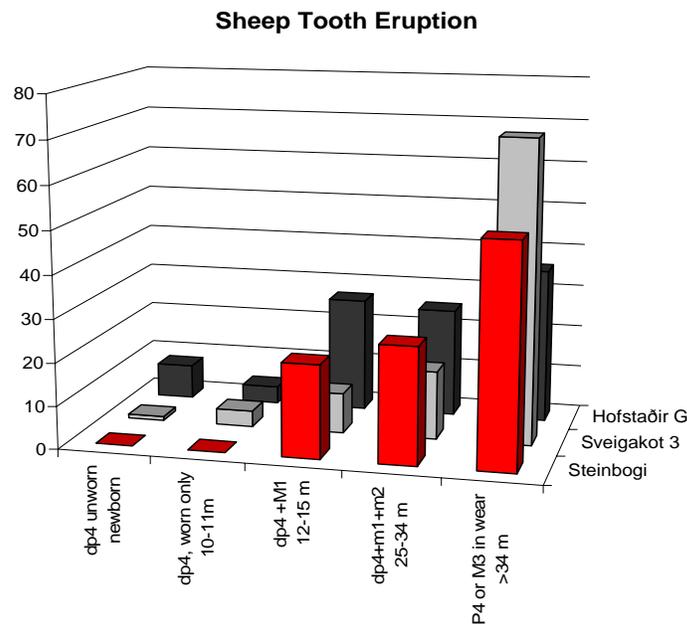


Figure 16. Patterns of sheep tooth eruption at Steinbogi, Hofstaðir and Sveigakot.

Sheep Tooth Eruption & Wear. While breed, nutrition, and general health affect the rate of tooth eruption in individual animals, the general pattern of eruption is fairly stable and well documented for Icelandic sheep. Figure 16 illustrates the pattern of sheep tooth eruption at Steinbogi (n=37, maxillae and mandibles) and compares it to patterns at the earlier nearby sites of Sveigakot and Hofstaðir.

At all three sites, the majority of the sheep appear to have survived to experience the eruption of their adult dentition, though some were clearly culled in their first two years of life. Using the widely employed method of Grant (1982) it is possible to score both

individual teeth and partial tooth rows for wear. While tooth eruption sequences have a strong genetic basis, tooth wear is conditioned by both age and the amount of grit present in fodder (Mainland 2001) and is thus a less direct measure of actual age of death. Figure 17 presents the mandibular wear stage (MWS) distribution (age assignments and approach follow Enghoff 2003). While the small number of usable mandibular tooth rows (n=16) limits conclusions, there appears to be a small spike in mortality in the 7-10 month range (ca Nov- Feb for early May births), and if tooth wear at Steinbogi were only slightly more rapid than at the earlier sites this minor spike could easily simply reflect the sort of autumn stock adjustment pattern evident in the larger Sveigakot and Hofstaðir collections.

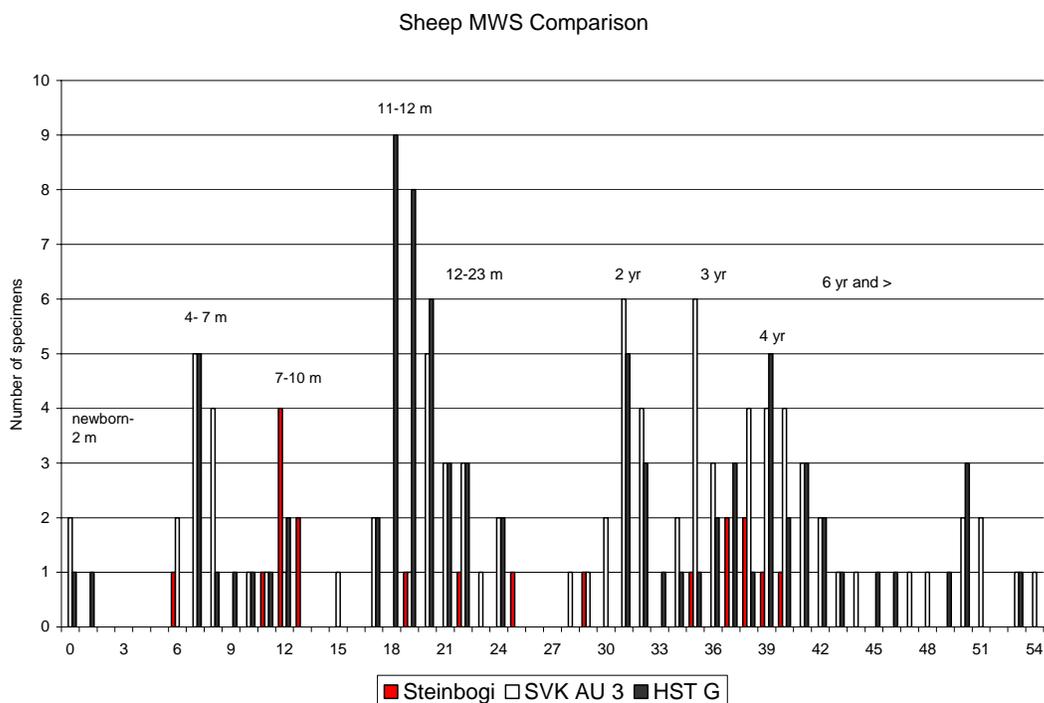


Figure 17. Mandibular wear stage (MWS) distribution at Steinbogi, Sveigakot and Hofstaðir.

If we focus upon wear to the deciduous fourth premolar (dp4) the smaller sample size (n=11) restricts generalizations, but the general pattern suggesting a peak in mortality in the autumn/late summer at all three sites may indicate the general similarity in sheep flock management during the first year of life (fig. 18)

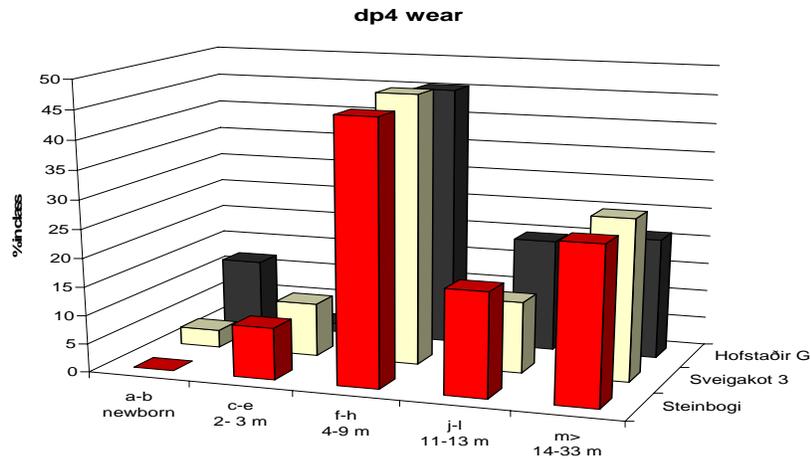


Figure 18. Deciduous fourth premolar wear at Steinbogi, Hofstaðir and Sveigakot.

Fusion of Caprine Long Bones. Figure 19 presents the fusion percentage of selected long bone ends, illustrating the fall off in the number of animals surviving past a particular fusion point. While epiphyseal fusion is somewhat variable among individuals and is conditioned by nutrition and health as well as by genetics, and the survivorship of particular bone elements is also conditioned by taphonomic factors, fusion rates can yield data that can supplement age reconstructions based on tooth wear and eruption (see Enghoff 2003).

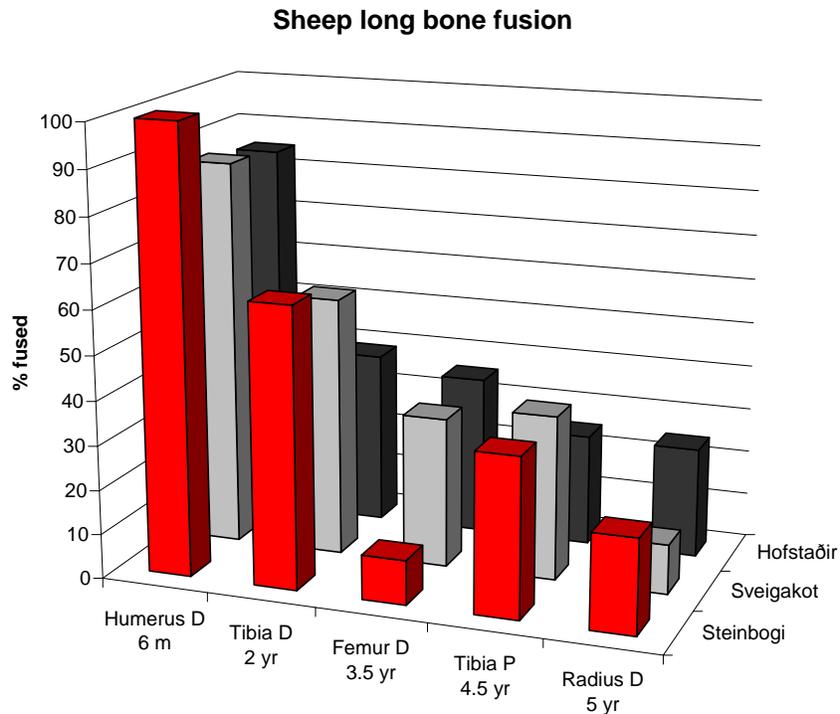


Figure 19. Caprine long bone fusion at Steinbogi, Sveigakot and Hofstaðir.

All three sites show much the same pattern, with the great majority of sheep surviving their first six months and substantial numbers (ca 20-30%) reaching 4.5-5 years. This long bone fusion pattern provides a useful supplement to the Steinbogi sheep mandible MWS pattern (figure above), which lacked jaws from older animals. These fusion data indicate that older sheep were in fact not uncommon at Steinbogi and there is no strong evidence for a herding pattern significantly different from the larger and older collections from Sveigakot and Hofstaðir. A larger collection would certainly be desirable, but overall patterning suggests a wool-producing economy also providing byproducts of meat and milk.

Size reconstruction and metric data

Making use of the work of Teichart (1975) a reconstruction of estimated live withers height can be made based on the maximum length of selected long bones. Due to butchery practices and sample size, only two bones (metatarsus and radius) are available for GL (greatest length) metrics from Steinbogi (all measurements follow Von den Dreisch 1976). As table 7 indicates

Reconstructed Stature

Metatarsus (GL x 4.54)

	<i>n</i>	<i>mean</i>	<i>max</i>	<i>min</i>	<i>standard dev.</i>
Sveigakot	28	63.27	69.96	56.95	3.62
Hofstaðir	20	52.69	71.19	43.13	6.44
Hrísheimar	1	61.17			
Steinbogi	1	65.83			

Radius

Steinbogi	1	60.53			
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Table 8. Reconstructed stature of sheep at four Mývatn sites.

the two stature reconstructions fall well within the range established by the larger collections from Mývatnssveit and the range of modern Icelandic sheep.

Following O'Connor (1989) a reconstruction of live body weight in kilograms for the six available distal sheep radii from Steinbogi are compared to sheep radii from Hofstaðir (n=8) and Sveigakot (n=9) in table 8. While none of these sample sizes are large, the reconstructed sheep (standing between ca 40 and 70 cm at the withers and weighing between 30 and 45 kg) show considerable similarity between sites of different periods in Mývatnssveit. The Mývatnssveit sheep stature reconstructions also overlap with most of the range (ca 72-53 cm) produced by Enghoff's (2003) thorough review of other N Atlantic Viking-medieval

collections. While the reconstructed animals may appear somewhat light for their stature by modern standards, data collected in 1913 from a flock of 60 ewes in S Iceland produced a mean live weight of 31.5 kg with a minimum of 27.5 kg (Aðalsteinsson 2000).

Reconstructed Sheep Body Weight in Kg
based on distal radius measurement
O'Connor (1989)

Steinbogi	Hofstaðir	Sveigakot	
		wt in kg=1.79xBd (mm)-13.3	
		Sveigakot	
	31	35	30
	32	37	31
	38	38	31
	38	38	32
	40	40	33
	42	40	33
		40	34
		41	38
			40

Table 9. Reconstructed Sheep Body Weight at Steinbogi, Hofstaðir and Sveigakot

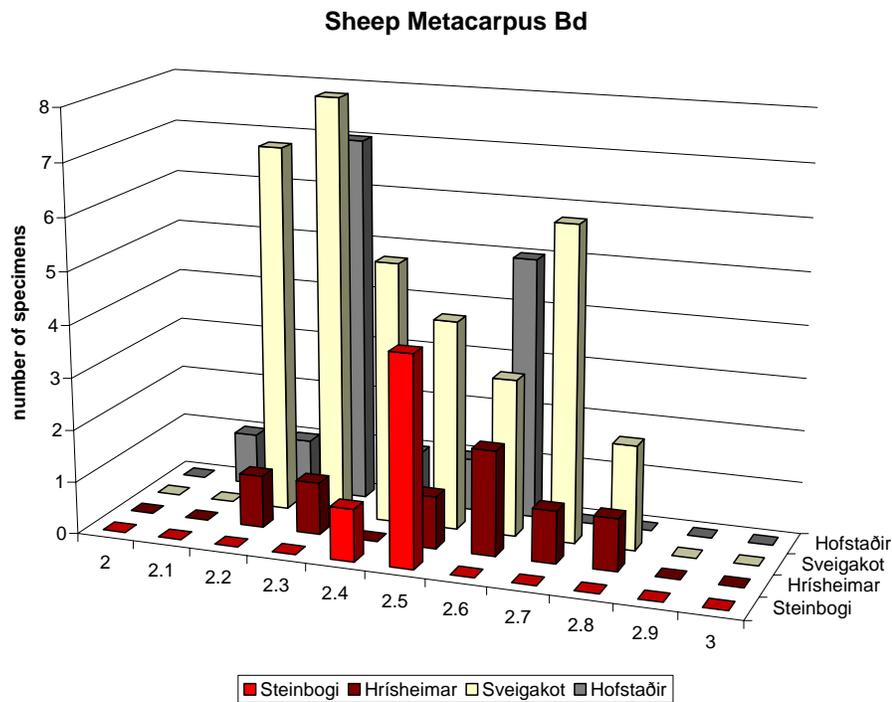


Figure 20. Sheep metacarpus maximum distal breadth at four Mývatn sites.

Figure 20 compares the distribution of sheep metacarpus maximum distal breadth (Bd) for Steinbogi (n=5), Hrísheimar (n=7), Sveigakot (n=35), and Hofstaðir (n=16). As Enghoff (2003) has noted with reference to the distribution of the same measurement of sheep

metacarpi at GUS in Greenland, there is a bimodality in the distribution of the larger collections (Sveigakot and Hofstaðir) which probably indicates sexual dimorphism (most likely ewes vrs wethers). All bone metrics from Steinbogi fall within the normal range for sheep previously documented from earlier periods in Mývatnssveit (see summary tables in appendix), and general conformation of skull shape and horn core strongly resemble both modern Icelandic sheep and the sheep of the 9th-11th c, supporting genetically based arguments for strong continuity of breed down to the present (Aðalsteinsson 1991)

Butchery Patterns & Bone working

The Steinbogi collection shows many similarities with patterns of butchery observed on other archaeofauna from the Mývatn area. One sheep skull was clearly prepared as *svið* (split sheep cranium) confirming the presence of foodways extending from earliest settlement down to the present (similar preparations have also been found in Norse Greenland). Long bones were generally split lengthwise (sometime with the aid of mid-shaft blows by a heavy instrument) for marrow extraction. All but one of the caprine metapodials recovered were subjected to longitudinal splitting (the usual method of the settlement age). This small proximal metatarsus fragment appears to show the sort of perforation found regularly in later medieval and early modern Icelandic and Shetlandic collections (and some Faroese), where most caprine metapodials were perforated at both ends so the marrow could be sucked out without destroying a very usefully-shaped bone (Bigelow 1984). It is unclear if this specimen actually represents such a dual-perforated metatarsal, as it appears to come from a bone that was also split longitudinally. The exact date for the introduction of biperforation into Iceland remains unknown, though it certainly becomes common on most sites by later 13th c.

The Steinbogi collection shows examples of bone and horn working as well as the marks of butchery and consumption. Two segments of a ram horn core (probably from different individuals) were recovered showing clear use of a saw to cut the horn and horn core into segments. The saw marks show a pattern of cutting from two directions and then snapping off the weakened center (common medieval practice) rather than cutting straight across as became common in early modern times. As figure 2 above illustrates, the dense cleithrum of the haddock was also used for carving. The 13th c carver at Steinbogi was part of a long craft tradition. Gamesmen carved from haddock cleithrum have been recovered from 10th c contexts in Mývatnssveit and modern carvers still work the same element into the

images of birds and seals appearing in contemporary craft shops. The single fragment of whale (cetacean) bone appears to be a small fragment of a worked piece, possibly part of a broken tool, and need not reflect any subsistence role.

Birds

Bird bone makes up a small portion of the total archaeofauna at Steinbogi, and the identified fragments are split between ducks and ptarmigan (grouse). Despite the frequency of migratory waterfowl in the Mývatn/ Laxá area, most of the Mývatnssveit archaeofauna are dominated by ptarmigan, and this collection is the first from the region to show an absolute majority of duck bones. The *Aythya* sp elements are probably from the Scaup common to the Laxá near the site (tufted duck appears to be a recent arrival) but the Scaup cannot be reliably distinguished from this close relative on most elements. From the skeletal elements present and the find context, it is quite possible that the majority of the *Aythya* sp. bones come from a single individual, and larger samples from a wider area will be required to assess bird hunting at Steinbogi.

<i>Scientific Names</i>	<i>English Common Names</i>	<i>NISP Count</i>	<i>% of Identified Birds</i>
<i>Aythya</i> sp.	Scaup/Tufted Duck	16	61.54
<i>Anas platyr.</i>	Mallard	1	3.85
<i>Lagopus mutus</i>	Ptarmigan	9	34.62
<i>Aves</i> sp.	Bird sp	33	
	Total	59	

Table 10. Bird species present at Steinbogi

Fish

Table 10 presents the NISP count and relative percentage data for the fish remains recovered from Steinbogi. As the site overlooks what is today one of the richest trout fishing rivers in Iceland, it is not surprising to see salmonids and trout in particular dominate this part of the archaeofauna. Less expected would be the presence of gadid (cod family) fish given that Steinbogi is over 50 km from the sea. However, prior work on 9th-11th c collections from Mývatnssveit has regularly turned up significant amounts of marine fish bone in this inland area. As in prior bone assemblages, there is a marked difference in the skeletal element distribution of freshwater salmonids and salt water gadids (Perdikaris, Einarsson et al 2004). While the salmonids show representation of virtually all body parts, the gadid bones are

restricted to the bones around the gill slit (cleithrum and nearby bones) and the lower (caudal) vertebrae. Heads and upper vertebral elements were apparently discarded at distant fish processing centers. Larger sample sizes will be required to assess any changes in this pattern of marine fish preparation from early settlement times down to the 13th c.

Table 11

<i>English Common Names</i>	<i>Scientific Names</i>	NISP	% all ID Fish	% of Family
Atlantic cod	<i>Gadus morhua</i>	11	9.32	52.38
Haddock	<i>Melanogrammus aeglefinus</i>	10	8.47	47.62
Gadid family	<i>Gadidae sp.</i>	3	2.54	
Arctic charr	<i>Salvelinus alpinus</i>	9	7.63	16.98
Trout	<i>Salmo trutta</i>	44	37.29	83.02
Salmonid family	<i>Salmonidae sp.</i>	41	34.75	
Fish species		33		
	<i>total</i>	151		

Table 11. Fish species present at Steinbogi.

Discussion

The Steinbogi archaeofauna by itself represents a useful indicator of farming and subsistence at a small and ultimately unsuccessful farm of the Middle Ages in this region. In combination with the regional picture provided by the Landscapes of Settlement project, it provides a key transition from the increasingly well documented economy of the 9th-11th c and the economy of Mývatnssveit documented by the large collections from Sveigakot, Hrísheimar, Hofstaðir and the smaller samples from Selhagi (see location map). Like Hofstaðir, Steinbogi occupied the fringe of the Mývatn area, with excellent access to the western banks of the Laxá river. However, the steep slope at Steinbogi provides far less level ground than the broad and relatively flat Hofstaðir home field, and the site is very exposed to wind from the N and E. It is hard to imagine that this was ever a very high status farm, though its prosperity may well have undergone the same alterations as have been documented for the site of Sveigakot.

However, it seems clear that time as well as status separate the Steinbogi archaeofauna from the other Mývatn collections. The final phase at Sveigakot (probably early to mid 12th c) certainly represents the midden accumulation of what had become a small (and failing) farm, with a hall area reduced to nearly half its 10th c size (Vésteinsson et al 2003). However, the Sveigakot collection clearly belongs to the end of the Settlement Age- pigs are still present in

some numbers, horse bones appear in middens with every indication of butchery and consumption, goats are not rare, and cattle bones still make up a substantial proportion of the collection. The Steinbogi collection was probably deposited less than a century after the terminal Sveigakot archaeofauna, but seems to reflect a radically different agriculture - pigs and horses absent, sheep totally dominant over goats, and cattle reduced to a fraction of their earlier importance. It would appear that a significant transition in economy and subsistence had occurred, and that the Steinbogi collection indeed belongs to a different age.

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List of artifacts recovered from Steinbogi in 2002

FindsNo	area	context	Material	General description
SBO 01	K	002	FE	KNIFE
SBO 02	K	002	FE	HOOK?
SBO 03	K	002	FE	HOOK?
SBO 04	K	002	FE	FE OBJ
SBO 05	K	002	FE	NAIL
SBO 06	K	002	FE	FE OBJ
SBO 07	K	002	FE	NAIL
SBO 08	K	002	FE	FE OBJ
SBO 09	K	002	FE	FE OBJ
SBO 10	K	002	FE	HOOK?
SBO 11	K	005	FE	FE OBJ
SBO 12	K	003	CU	COPPER OBJ
SBO 13	K	007	FE	KNIFE
SBO 14	K	002	FE	NAIL WITH LARGE HEAD
SBO 15	K	007	FE	FE OBJ
SBO 16	K	002	FE	FE OBJ
SBO 17	K	007	FE	FE OBJ
SBO 18	K	003	FE	FE OBJ
SBO 19	K	003	FE	NAIL
SBO 20	K	002	FE	FE OBJ
SBO 21	K	002	FE	KNIFE?
SBO 22	K	002	FE	STAPLE?
SBO 23	K	005	FE	PART OF HOOK?
SBO 24	K	005	FE	FE OBJ
SBO 25	K	003	FE	NAIL W. RIVET
SBO 26	K	003	FLINT	STRIKE A LIGHT
SBO 27	K	002	STONE	PEBBLE
SBO 28	K	003	STONE	PEBBLE
SBO 29	K	002	STONE	PEBBLE
SBO 30	K	002	STONE	PEBBLE
SBO 31	K	005	STONE	PEBBLE
SBO 32	K	002	STONE	PEBBLE
SBO 33	K	007	STONE	PEBBLE
SBO 34	K	007	STONE	PEBBLE
SBO 35	K	005	STONE	PEBBLE
SBO 36	K	002	STONE	PEBBLE
SBO 37	K	007	STONE	PEBBLE
SBO 38	K	007	STONE	PEBBLE
SBO 39	K	005	STONE	PEBBLE
SBO 40	K	002	STONE	PEBBLE
SBO 41	K	003	STONE	PEBBLE
SBO 42	K	008	STONE	PEBBLE
SBO 43	K	002	BONE	SINGLE SIDED COMB FRAGMENT
SBO 44	K	002	BONE	PIN FRAG, BURNT
SBO 45	K	007	BONE	WHALEBONE PIN, WEAVING TOOL?

SBO 46	K	002	BONE	BONE OBJECT
SBO 47	K	002	BONE	GAMING PIECE MADE OF HADDOCK CLIETHRUM
SBO 48	K	005	STONE	RED SANDSTONE POSSIBLE RAW MATERIALS
SBO 49	K	002	CU ALLOY	FRAGM OF SHEET WITH NAIL HOLES
SBO 50	K	007	STONE	WHETSTONE
SBO 51	K	005	STONE	SPINDLE WHORL, NOT STEATITE
SBO 52	K	007	STONE	WHETSTONE, SCHIST
SBO 53	K	002	STONE	BEAD FRAG? MAY BE NATURAL
SBO 54	3	F	FE	NAIL

Orri Vésteinsson:

Archaeological investigations at Brenna

Introduction

To the west of Lake Mývatn there is a much smaller lake called Sandvatn. It has an outlet through a brook into Lake Mývatn and shares many of the characteristics of its larger neighbour in terms of sediments and bird, fish and insect species. An important difference is however that Sandvatn does not seem to have had the same rich fishing as Mývatn, although it is by no means empty of fish. Since medieval times there has been no settlement on the lake itself and it has been divided between the properties of Hofstaðir, Geirastaðir, Grímsstaðir and Hamar – the last named in Laxárdalur in the commune of Reykdælahreppur. The land register of 1712 only mentions Sandvatn in terms of a duck nesting colony on an islet belonging to Geirastaðir⁷ but it is certain that it underplays the value of the lake to the farms which circled it. The duck nesting colonies belonging to Hofstaðir and Geirastaðir were particularly valuable and Hofstaðir, Grímsstaðir and Hamar all had their shielings on the lake. The shieling of Hofstaðir is in caves called Glúmsstaðahellrar, a place name that suggests there was a place called *Glúmsstaðir, a possible farm name. There are some ruins by the lake which have been associated with this putative farm but they are too few and small to be classified as a settlement. The place name Seltangi on the western shore of the lake suggests the location of a shieling from Hamar. Only very indistinct ruins are however to be found there (SP-221:018) so this site cannot be regarded as a possible settlement. The shieling from Grímsstaðir, at the northeastern extremity of the lake, at Selholt, is a much more extensive archaeological site (SP-209:051). This site is surrounded by a double boundary, observed by an amateur archaeologist to be under the V-1477 tephra. The infield is slightly larger than the one at Steinbogi, some 1,6 hectares. This could therefore well be an abandoned farm, later turned into a shieling.⁸

The only site on the lake with both extensive archaeological features and a historical record as an abandoned farm is called Brenna. Brenna is on the property of Geirastaðir, on the eastern side of the main body of the lake, huddling between the headland Brennuás to the

⁷ *Jarðabók Árna Magnússonar og Páls Vídalín* XI, 242.



Fig. 21. Map of Sandvatn and environs. The farms which owned land on lake Sandvatn are marked in black and the shieling sites in yellow. Map scale. c. 1:100.000

north and the slopes of Mt Vindbelgjarfjall to the south. The site lies between an inlet (Brennuvík) from Lake Sandvatn to the west and a small lake or pond (Brennutjörn) on the eastern side.

Brenna is first mentioned in the Land register of 1712 where it is recorded that “word has it that in ancient times this place was settled, but there is not much to see in terms of earthworks. It is said that this farm was burned, and that is why the site is named thus, but it is not said what the farm was called originally. It is not possible to resettle in this place

⁸ Birna Lárusdóttir et al.: *Fornleifaskráning í Skútustaðahreppi IV* (Reykjavík 2000), pp. 117-18.



Fig. 22. Brenna seen from the south. The inlet Brennuvík to the left and the pond Brennutjörn to the right define the eastern and western limits of the site. The arrows point to the boundaries marking the northern and southern sides of the infield. Note the eroded mountain slope in the foreground.

because the area is covered in wood.”⁹

Brenna is some 5 kms from Geirastaðir and a similar distance from Grímsstaðir. While the path between Geirastaðir and Brenna is fairly easy to walk the land east of Brenna, between Sandvatn and Mývatn is rugged lava, half submerged in water, where the dry bits of land are covered with thick shrubland. This is difficult country to travel through and was not as much used for grazing as the lush vegetation might indicate because livestock often got stuck in hollows or drowned in ponds. Because of this Brenna is quite isolated and neither old tracks or modern roads lie anywhere near the site. While the site was probably used as a shieling or winter-house for sheep in later centuries – judging from the fairly recent looking ruins on top of the farm mound – it has escaped any modern intervention and remains covered in shrub as it was in the beginning of the 18th century.

The site has received limited attention from archaeologists. It was first described by Helgi Hallgrímsson in 1977 and again by Sædís Gunnarsdóttir in 1997.¹⁰ Both describe the



Fig. 23. Archaeological features at Brenna.

double infield boundaries and enclosures, a number of smaller ruins and the central farm mound with a recent-looking shieling or sheep house on top. In 2002 Garðar Guðmundsson mapped the site with a GPS station (Fig. 23) based on previous work and further fieldwalking under the guidance of landowner Finnbogi Stefánsson. The site is covered in waist-high shrub (willow and dwarf birch) and only the more pronounced features are easily detected. It

⁹ *Jarðabók Árna Magnússonar og Páls Vídalín XI*, 242.

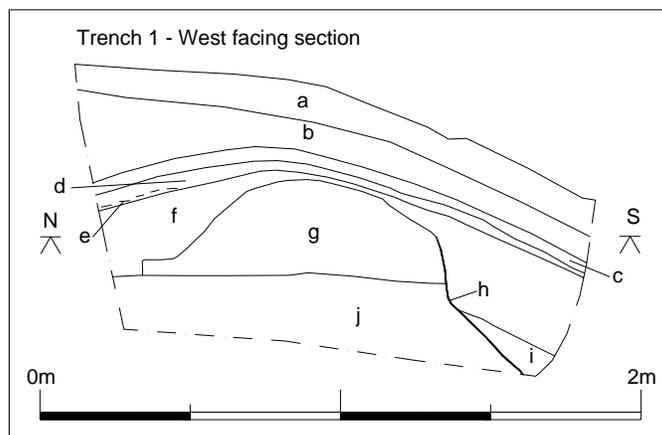
¹⁰ Elín Ósk Hreiðarsdóttir et al.: *Fornleifaskráning í Skútustaðahreppi II* (Reykjavík 1998), pp. 71-72.



Fig. 24. Recent-looking ruin (shieling?) on top of the farm mound in Brenna, looking southwest over the shrub covered infield and Sandvatn.

is therefore perfectly possible that some features remain unrecorded.

On the map A is the recent-looking building on top of what appears to be a small farm mound (Fig. 24) with a distinct mound (I) on the northern end, which proved to be a midden (see McGovern's report in the following chapter). J and K are indistinct mounds, in a part of the infield where the shrub is particularly dense and high and where more features can be expected. Of the other features D may be a boat house but the rest are either small houses or



Figs. 25-26. Section through infield boundary in Trench 1.

Trench 1, legend

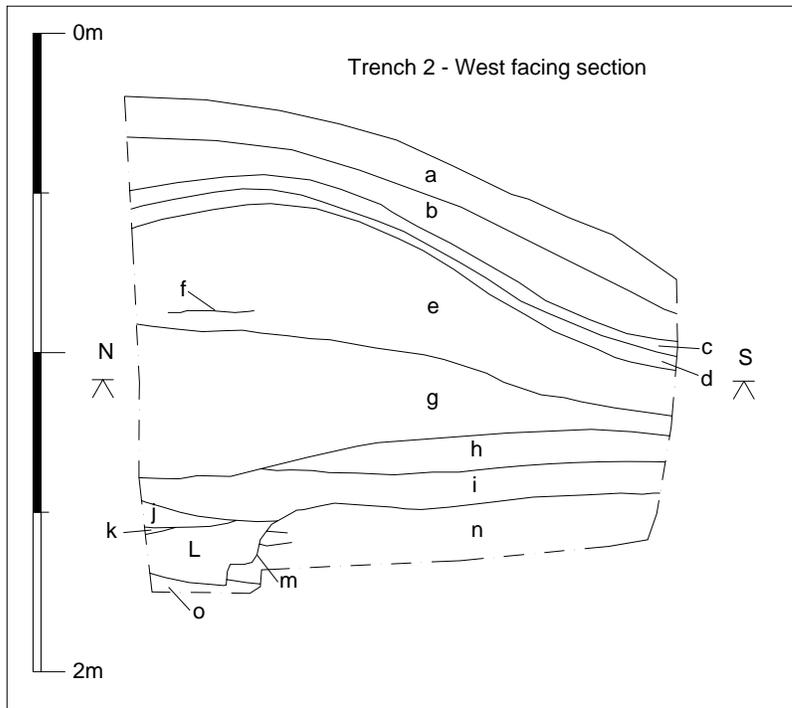
- a Topsoil
- b Brown sandy silt = aeolian accumulation
- c “a” tephra, from 1477
- d Dark brown to black peaty material
- e H-1158
- f Mid-brown silt = primarily aeolian accumulation, but some disturbance, esp. in lower parts on both sides of g
- g Turf wall built of strengur. Pale brown turf with LNS and diatom lens
- h Cut of ditch on the outside of the wall
- i Fill of ditch, upcast with LNS and Hverfjall tephra
- j Natural, incl. LNS (with both LNL and V~950), Hverfjall and H3

enclosures. The area inside the inner field boundaries is approximately 3,7 hectares and the area between the inner and outer boundaries approximately half a hectare.

Excavation

Two trenches were dug through the infield boundaries on the eastern side of the infield, 10-15 m from the shore of Sandvatn. Trench 1 was through the inner boundary (Figs. 25-26), a fairly insubstantial turf wall built of strengur (g). The wall was built on top of the V~950 tephra and on the outside (i.e. the eastern side) the surface had been cut away (h), presumably where turf for the construction had been stripped off. The wall is only a metre wide – similar to the infield wall at Steinbogi – raising doubts that these walls intended to protect the infield from animals. They are at least a feet short of the legal requirement that a boundary should be 5 feet thick at the base.¹¹ While the wall has no doubt lost much of its original height it has

¹¹ Grágás Ib, 90.



Trench 2, legend

- a Topsoil
- b Brown sandy silt = aeolian accumulation
- c "a" tephra, from 1477
- d Dark brown peaty material
- e Mid brown silt = mainly aeolian accumulation, but some disturbance, esp. in lower parts. Includes f.
- f H-1158

- g Wall material, mainly upcast (greyish brown sandy silt) but also some turf with LNS, possibly several layers. Quite compact in places
- h Light brown upcast with H3
- i Dark greyish brown earth – slightly mixed
- j Very mixed turf debris
- k Pale yellow clayey silt
- l Dark brown upcast with H3 – fill of ditch
- m Cut of ditch
- n Natural, incl H3, but LNS has been cut away
- o H4

Fig. 27. Trench 2.

not become flattened and it seems that it became buried relatively quickly in aeolian accumulation (f) – possibly suggesting that there was a spate of heavy erosion in the vicinity during the occupation of the site. There are signs of activity towards the base of deposit f, but it seems that this was short-lived as the wall had become more or less completely submerged when the H-1158 tephra was deposited. Following this the rate of aeolian accumulation also slowed down markedly between the 1158 and 1477 horizons, to pick up again in post-medieval times.

Trench 2, through the outer boundary, tells much the same story (fig. 27). Unfortunately it was placed too far south and did not hit the wall itself but only wall collapse and the outer trench which was presumably cut at the time of construction. Here there seems to have been much more activity associated with the construction of the wall (cut m) and during its use (deposits h, i, k, l). The wall itself is in evidence by a substantial collapse deposit – not observed in trench 1 – which again is capped by the H-1158 tephra. Like the inner wall this one seems to have become completely collapsed and submerged before 1158 but the same degree of aeolian accumulation is not in evidence – only layer i seems to be windblown material.

Discussion

Both infield boundaries at Brenna had become defunct well before 1158. At least one of them was built after 950 AD suggesting that the timeframe for this site is very similar to that of Steinbogi although there is no evidence at Brenna to suggest activity beyond 1158 as at Steinbogi. The limited scope of the trenching so far does however not allow definite conclusions to be drawn about the dating of the abandonment of this site. Judging from the size of the homefield and the number of recorded structures, Brenna was a much more substantial farm than Steinbogi and was furthermore in a location where expansion could be hoped for. Unlike Steinbogi Brenna is therefore a perfectly plausible site for an early farm, located on what looks to be in many ways an ideal place. It is on a lake with trout and rich nesting colonies; it is on a reasonably large piece of dry land which could have been (and possibly was) transformed into a lush grass-field. There are both meadows and pasture in the

vicinity although the access to these from Brenna will have depended on which other sites were occupied at the same time and how property boundaries were drawn.

The evidence for intensive erosion in Trench 1 may provide a clue for the causes for the abandonment of Brenna although too much significance should not be attached to a single profile made more complicated in this regard by its archaeological context. If there was intensive erosion before 1158 it is likely to have been local because similar rates of deposition have not been observed in a series of profiles at nearby Hofstaðir, although there also the general trend is for greater instability in medieval than post-medieval times. Such local erosion could have been in the sides of mountain Vindbelgjarfjall immediately to the south of the site, or – which is more likely – to the north across Lake Sandvatn in what is now known as Hólasandur. Almost nothing is known about the extent of this desert at the time of settlement and it can only be said that it has grown in historical sites (evidence by charcoal

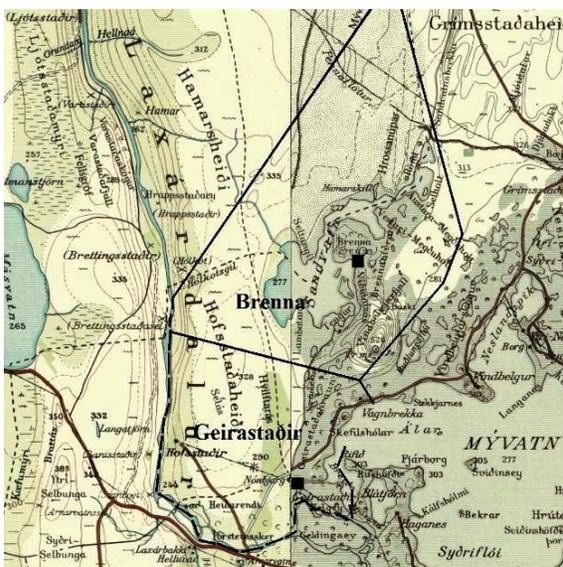


Fig. 28. Possible extent of Brenna property based on von Thiessen polygons

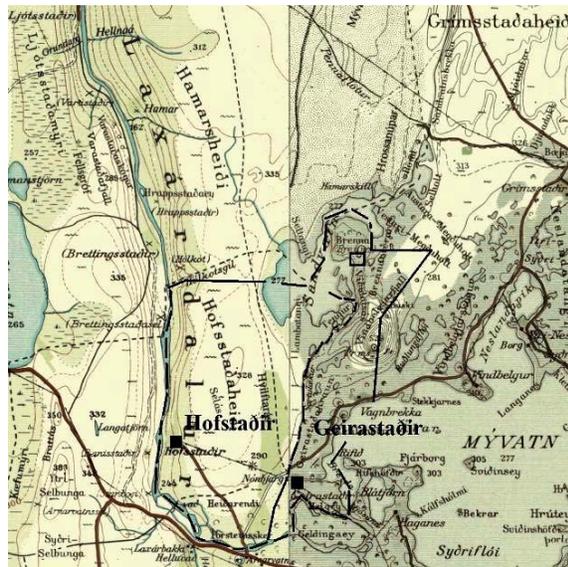


Fig. 29. Boundaries after the establishment of Hofstaðir and abandonment of Brenna (modern boundaries)

pits in what are now denuded areas¹²) but it is quite possible that it was caused by overexploitation following the settlement of the region, where the farmers of Brenna would be prominent on the list of suspects. To what extent the desertification of the land to the north of Sandvatn would have been a serious problem for farming at Brenna is difficult to assess and in the present state of almost complete lack of knowledge about environmental changes

¹² Árni Einarsson pers. com.

(which could include the silting up of Sandvatn) in this part of Mývatnssveit environmental degradation can only be suggested as one possible reason for Brenna's abandonment.

A different type of explanation can be suggested. While there clearly was occupation at Brenna after V~950 and while there is no direct evidence for occupation there before that eruption – it is tempting to associate the demise of this farm with the establishment of Hofstaðir as a new centre of power in southwestern Mývatnssveit. At present no evidence has been found of activity at Hofstaðir before V~950 and the great hall definitely was only begun after that event. If Hofstaðir was established so late its property must have been carved out of some one else's. Looking at the map it seems obvious that the principal victim in this must have been Geirastaðir – a farm which both Landnámabók and Reykdæla saga give some prominence despite its limited value (16 hundreds) and small acreage.¹³ If von Thiessen polygons are drawn between Brenna and the neighbouring farms in a landscape with no Hofstaðir, the northeastern corner of the present property of Hofstaðir would come under Brenna, as well as almost a half of the land presently belonging to Geirastaðir. The northeastern corner of the Hofstaðir property is one of its more significant bits, with large duck nesting colonies in Tengur and large wet meadows. If this part was taken from Brenna it would have been a serious blow to its farming capacity, although limited compared to the losses Geirastaðir had to suffer. If however Geirastaðir was compensated by a good 2/3 of the land of Brenna this would at least have ensured Geirastaðir's continued existence as a middle-range property. In this scenario Brenna would therefore have been abandoned because of reorganization of property arrangements associated with the establishment of a new centre of power. That this fate was to befall Brenna and not Geirastaðir may well be explained by detrimental environmental changes affecting the former more than the latter.

The explanation suggested in the Land register that Brenna is not the original name of the farm, but given only after it was burnt and abandoned, is perfectly plausible but there is no particular reason to be suspicious of Brenna as a farm name. There is a small group of farm names with -brenn- and -svið- elements, found in all parts of the country (including a farm called Brenna in Borgarfjörður, SW-Iceland), indicating forest or shrub clearance by burning. Considering the present state of the vegetation at Brenna, after several years of limited grazing, it is easy to see why the original settlers would have resorted to fire to clear this land. In this context it should however be mentioned that in Reykdæla saga there is mention of a farm in Mývatnssveit called Sandfell, which is described as being by Mývatn not far from

¹³ *Íslensk fornrit* I, 284; X, 204, 205, 209.

Geirastaðir.¹⁴ Sandfell is the name of a mountain to the southeast of Gautlönd and it has normally been assumed that this farm was at the roots of that mountain although no sites except shielings are close to it. Sandfell would be a perfectly apt name for Vindbelgjarfjall (named from the farm Vindbelgur) and the farm on its northern spur could well have been named from it. If this was really the case it must mean that Brenna/Sandfell was considered more original and/or more important than Vindbelgur but that after Brenna was abandoned this rather distinctive mountain became associated with the remaining farm at its roots, Vindbelgur.

So while at least one of the two infield boundaries was built after V~950 it is tempting to view Brenna as an early settlement, possibly from the first wave of settlement that occupied Mývatnssveit in the late 9th century. Judging from the size of the infield and the number of structures Brenna was no satellite or out station but a primary settlement. While its location may have seemed favourable to the first settlers it will have proved to be a backwater in relation to other farms in the region. Brenna's sheltered location, with line of sight to no other farm, may have been considered to be a bonus if people's relations were hostile in the initial settlement phase but its marginality in relation to the rest of Mývatnssveit may later have become a disadvantage, possibly contributing to its demise. Such factors as well as possible environmental degradation hitting Brenna harder than the neighbouring farms may have contributed to its abandonment, although the actual events that lead to its abandonment may have had more to do with reorganization of property to make room for a new centre of power at Hofstaðir.

¹⁴ *Íslensk fornrit* X, 205, see also fn. 2 and pp. 210 and 211.

Midden Investigations at Brenna – field report

During the 2002 field season of the *Landscapes of Settlement Project* (directed by *Fornleifastofnun Íslands* with collaboration by the NABO cooperative) we visited the abandoned site of Brenna on the shores of Sandvatn (to the NW of Mývatn). A small farm site now much overgrown with dwarf birch and willow had clear boundary walls, several room depressions in a small farm mound, and a clear mounded midden deposit to the NE of the main structure (I on Fig. 23). A small test pit had been dug some time in the past at the base of the midden mound, but this appears to have missed the main deposit and is mainly sterile. Three cores were placed in a line across the upstanding midden mound, and these demonstrated between 50 and 90 cm of deposit extending down to the distinctive local LNS. Fish bone, ash, charcoal, bird egg shell (in some quantity), and burnt mammal bone suggest that this is both a rich and an early deposit. Logistic problems are considerable however, and supporting or maintaining an excavation crew on site would be a challenge.



Fig. 30. Main site area at Brenna, looking northeast across the grass covered room depressions towards the brush covered midden (marked by an upstanding Oakfield core)

Coring Report

Core 1) on the N edge of the midden mound.

0-30 cm turf and roots, sterile brown silt

30 – 90 cm stratified layers of ash, charcoal, fish bones, and bird egg shell. Looks very rich and very like a midden.

90 cm LNS with charcoal and egg shell on the surface.

90-109 sterile and then H3 at 110

Core 2) at the approximate crest of the mound.

0-30 cm sterile brown soil (Aeolian?)

30-120 cm stratified layers of wood and peat ash, fish bone, charcoal fragments, large amounts of bird egg shell. Again looks like extremely rich midden.

120-122 LNS with cultural material in direct contact.

Core 3) on the S edge of the midden mound, approximately at the same distance from the center as core 1.

0-30 cm turf, roots, sterile brown silt

30-78 cm stratified layers of ash charcoal, some random turf, again bird egg shell.

80 cm LNS with cultural material in direct contact.

Discussion and Recommendation

This appears to be an extremely rich and undisturbed midden with a very early beginning. If it were in a more accessible location it would be a prime target for excavation. It would not be impossible to set down gear by boat (esp. if an outboard engine can be borrowed) and walk a small hardened crew in and out, but this will be demanding. Not an easy site, but potentially productive.

Archaeological investigations at Oddastaðir

Introduction

The property of Grænavatn – which includes the site Sveigakot – stretches all the way from Mývatn south to Vatnajökull, some 80 kms, making it one of the largest properties in Iceland. Most of this land is barren desert and lava flows and the the only part where there are conditions for permanent settlement is the northeastern fringe of the property, a narrow strip of land along the eastern bank of River Kráká and on either side of its tributary, Sellandagróf. The farm Grænavatn itself is situated at the very northern edge of the property, but further south at least two sites are known which were permanently occupied in the middle ages. One of these is Sveigakot, where excavations have been underway since 1999, and the other is Oddastaðir where small scale investigations were carried out in 2002.

Oddastaðir is located towards the northern end of a shallow valley or depression called Sellönd (lit. ‘shieling lands’) which stretches some 7 kms north from the mountain Sellandafjall. A brook called Sellandagróf runs through the depression and drains into Kráká, a much larger river which runs parallel to Sellandagróf to the west. Sellönd is between 360 and 400 m above seal level, significantly higher than the settlements around Lake Mývatn (at 250 m.a.s), but is nevertheless quite lush. Its vegetation is dominated by grass species and low shrub – a great contrast to the barren desert immediately to the east. As the name implies the area was used for shielings, and apart from Oddastaðir there are at least two sites further south associated with transhumance. The more southerly (see Fig. 31) is Sellandahús where there are substantial building remains, while the remains at Hildarsel are less extensive. These shielings were used by the farmers of Grænavatn and sometimes also rented out to other farms.

Like so many other abandoned farms Oddastaðir is first mentioned in the Land Register of 1712. It describes an ancient abandoned farm which the farmers of Grænavatn had sometimes used as a shieling. It adds that some 30 years ago (i.e. around 1680) a cottage had been established which only lasted for 4 or 5 years. At that time the cottage had supported a single cow but the compilers of the Register conclude that the site could not be re-occupied on account of poor hay yields, because the homefield and meadows had

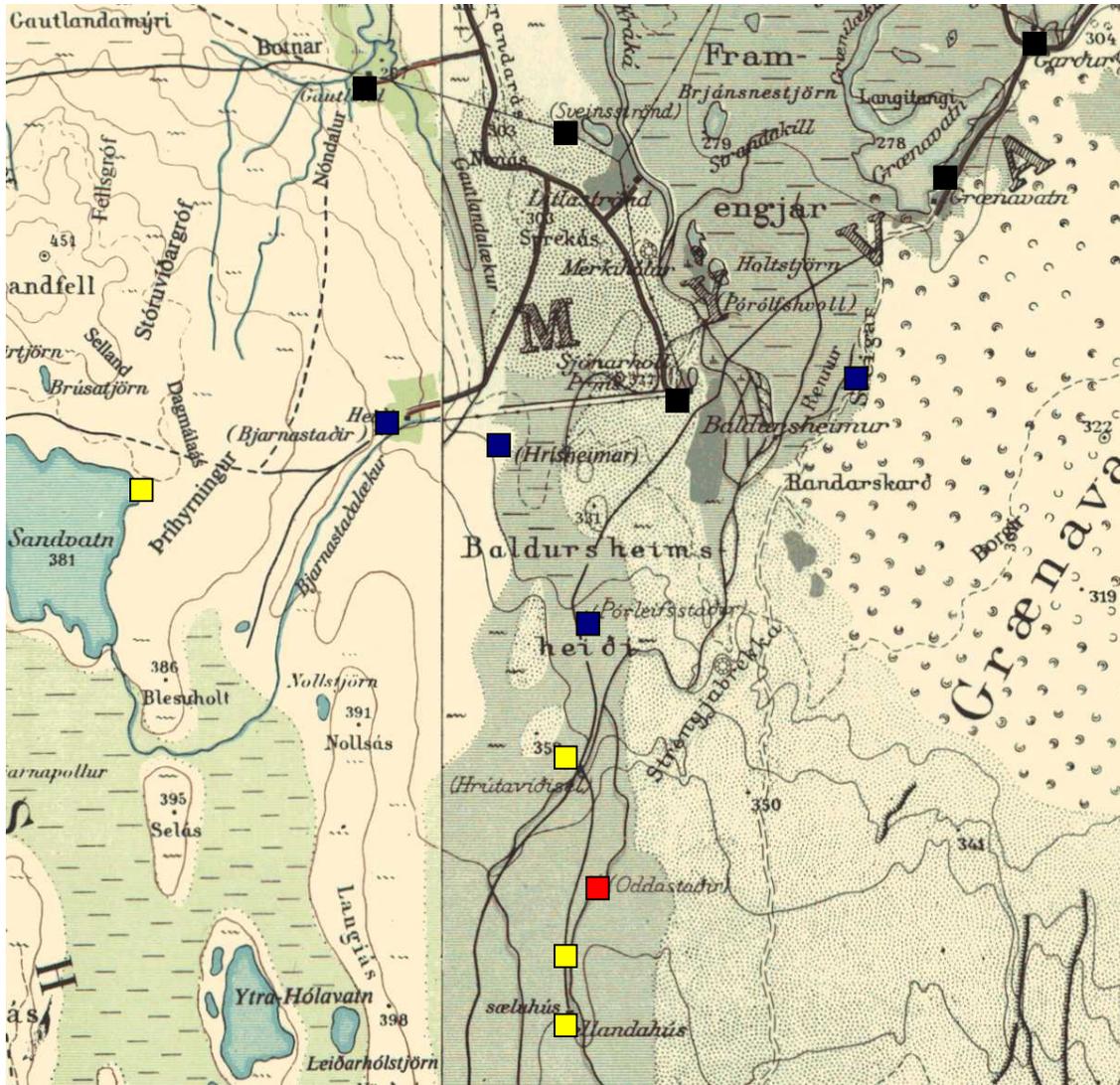


Fig. 31. Map of the southern part of Mývatnssveit, showing the location of Oddastaðir (red square) in relation to permanent farms (black squares), farms abandoned in the middle ages (blue squares) and shielings (yellow squares).

deteriorated.¹⁵ The late 17th century was a period of settlement expansion in Iceland. The late and brief occupation of Oddastaðir was therefore a part of a widespread phenomenon. The majority of new farms and cottages established in this period were shortlived, and many – like Oddastaðir – were situated on abandoned farms which were soon found not to be ideal places for settlement. The Register’s description implies that the homefield at Oddastaðir – which is not small by early modern standards – and the surrounding meadows had not been fertile enough to support livestock for a single household in the long run. This has probably more to do with the low-investment – high off-take type of husbandry practiced in the 17th century than the inherent qualities of the land.



Fig. 32. Plan of Oddastaðir.

Oddastaðir is mentioned in 1839 as an abandoned farm,¹⁶ but no description was made of the site until Helgi Hallgrímsson came there in the 1970s. He reports the substantial homefield boundary, a farm ruin and an oval ruin inside an oval enclosure. This last named feature has led to speculations about a possible chapel at Oddastaðir. The site was surveyed by the author in 1998 and a rough sketch of its principal features was drawn up along with a brief description of the archaeological remains.¹⁷

In addition to the fieldwork carried out in 2002 and described here, Professor Christian Keller surveyed the site in 2002. His analysis of the archaeological features at Oddastaðir informed the subsequent work.

¹⁵ Jarðabók XI, 232.

¹⁶ Þingeyjarsýslur, 125.

¹⁷ Elín Ósk Hreiðarsdóttir & Orri Vésteinsson (1999): *Fornleifaskráning í Skútustaðahreppi* III, 72.

The structures at Oddastaðir

Oddastaðir is situated on the eastern bank of the brook Sellandagróf. Most of the ruins and the major part of the homefield are on a slope overlooking the brook, but the homefield has also extended into the flat base of the depression. In this area the brook has cut away parts of the homefield boundaries making it difficult to assess the size of the homefield, particularly towards the northwest (see Fig. 32). The eastern limit of the homefield is defined by a boundary built on the brake of slope. Further east the land drops off again, although only slightly. This land is completely denuded and the edge of the desert lies only 20 m east of the northeastern corner of the homefield. It is clear that this site is endangered by erosion on its eastern and western sides, by the brook towards the west and wind erosion towards the east. The erosion faces do however seem to be fairly stable and no apparent change was noted between the visits 1998 and 2002.

The site is enclosed by a homefield boundary (K, L and M) defining an area in excess of 1,7 hectares. Another boundary further west (N) has been truncated by Sellandagróf but seems to have defined an extra field, possibly an extension, which must have been more than 0,5 hectare in size. Taken together these boundaries indicate that the homefield at Oddastaðir can have been ca. 2,5 hectares in size at one point. It is therefore significantly larger than Steinbogi but not as large as Brenna – an observation also reflected by the number of structures inside the homefield. In the middle of the homefield there is a low mound (F), some 30x20 m in extent. This is no doubt the farm mound, presently capped by a recent (18th-19th c?) fold. The fold is built on top of other structures, presumably remains of shielings and the 17th century cottage. Other recent looking remains are to be found on the eroding bank of Sellandagróf (J), partially truncated by it. In these two places (F and J) the vegetation is dominated by grass whereas all the other ruins are covered in shrub. This difference can be taken as an indicator of the relative age of the structures. Two ruins are associated with the homefield boundary (A and B), folds rather than house ruins by their appearance. H and I are substantial structures, and I at least looks like a house-ruin divided in 3 or 4 rooms. Other ruins are less distinct. Among them is C which marks the location of the reputedly oval ruin inside an oval enclosure, but these remains are very indistinct.

Apart from truncations by the brook the homefield boundary is unbroken except around ruin B and in the middle of the northern side. The latter place is clearly a gate and tracks can still be seen leading north from it. The gaps on either side of ruin B are more



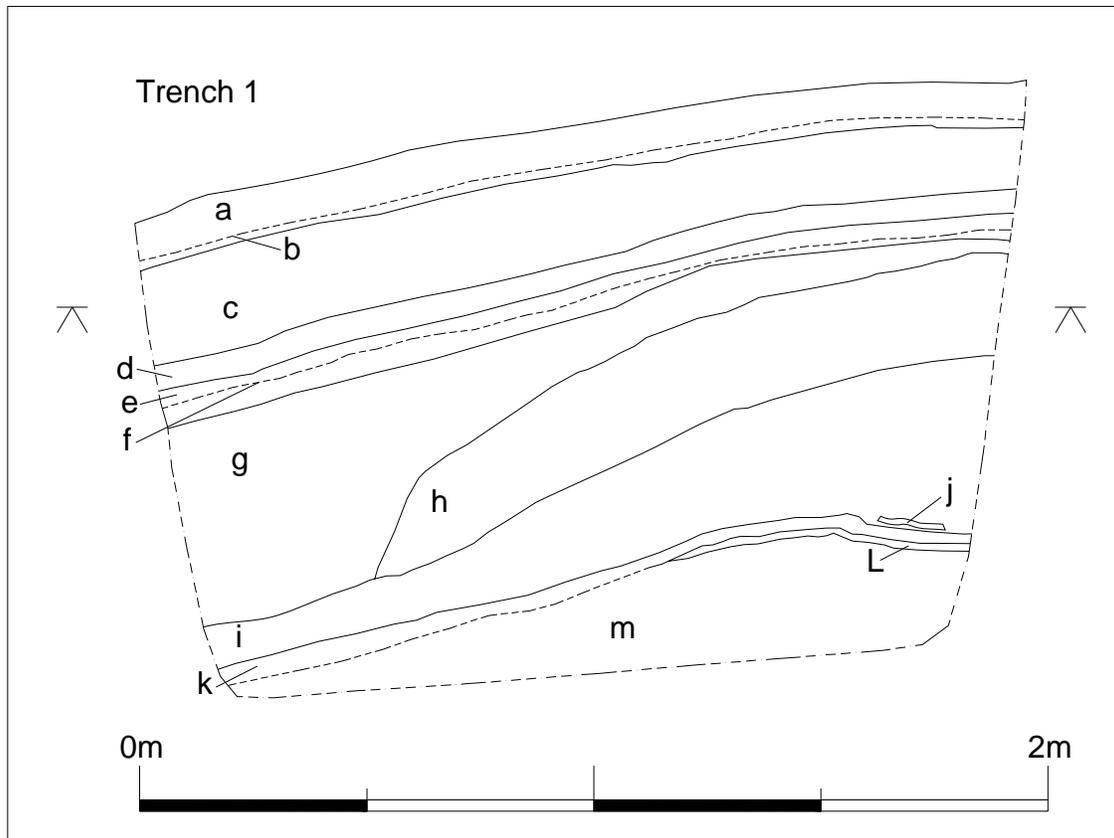
Fig. 33. Trench 1 from the south.

Equivocal, although it is tempting to see the gap between B and the alleged chapel site as the second main gate leading to the farm.

Excavation

In 2002 three sections were recorded at Oddastaðir. Trench 1 was cut into the northern side of homefield boundary K, Trench 2 was placed some 10 m in front of (west of) the fold on the farm mound F and a third section (“Trench 3”) was recorded on the eroding face of ruin J.

Trench 1

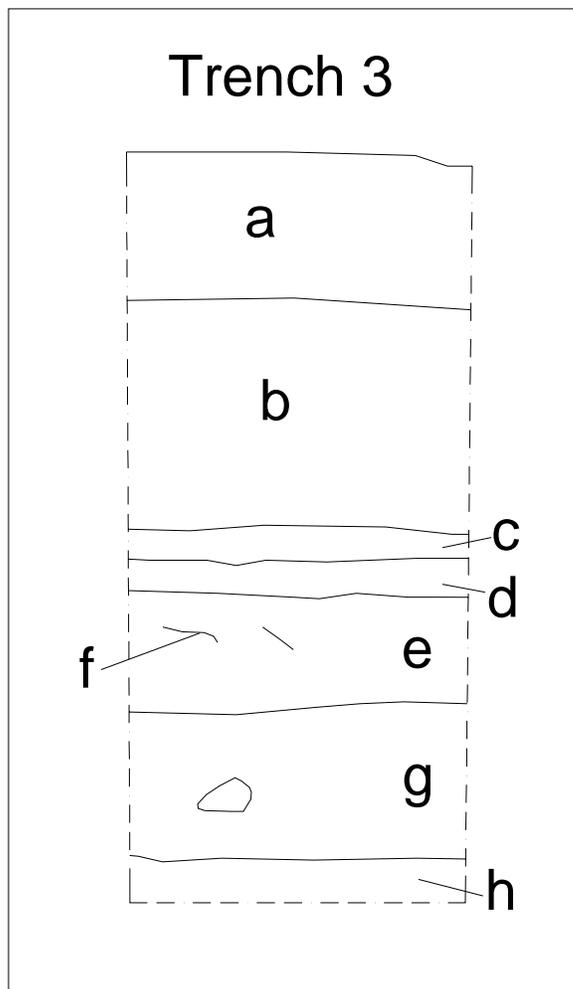


Trench 1, legend

a	Topsoil	h	Pale brown silt = upcast and turf. Repair to the wall?
b	V-1717	i	Turf with LNS. Wall
c	Dark brown sandy silt = aeolian accumulation	j	Lens of charcoal. Upto 7 cm thick and continuous in N and E sections = burning horizon
d	"a" tephra, from 1477	k	Light brown silt = aeolian accumulation
e	Near black to pale yellow silt = very mixed turfy soil	l	Olive green tephra – V~950
f	H-1300	m	Natural, incl. LNL
g	Dark brown sandy silt = aeolian accumulation, laminated w. occasional charcoal in lower part		

Fig. 34. East facing section in Trench 1.

In Trench 1 the collapsed boundary wall lay above a lens of charcoal (j), evidently an indication that the wood or shrub was burnt off the site prior to occupation. This burning horizon overlay a 2-4 cm thick layer of aeolian accumulation (k) which in turn overlay the V~950 tephra, putting the burning and subsequent building of the homefield wall quite some time after c. 950, probably sometime in the 11th century. The collapsed wall (i) is under a more mixed anthropogenic deposit (h), including some upcast, interpreted as a repair to the



Trench 3, legend.

- a Topsoil
- b Dark brown sandy silt = aeolian accumulation
- c "a" tephra, from 1477
- d Greyish brown silt with dark tephra(s)
- e Yellow to mid-brown silt, some charcoal
- f H-1158 in situ?
- g Dark grey silt = mixed anthropogenic layer
- h Natural with H3 at the bottom = LNS and Hverfjall tephra have been cut away

Fig. 35. West facing section of Trench 3.

wall (the core of which lies further north, outside the trench). The aeolian accumulation (g) capping this repair event has some charcoal in its lower parts indicating continued occupation even after the wall had begun to crumble, but this is capped by the H-1300 tephra (f) embedded in a completely natural deposit (e). The infield boundary is therefore dated to the 11th-13th centuries.

Trench 3 – which was more a cleaned erosion face than a trench – is located west of ruin J, where Sellandagróf has cut a high bank, damaging the archaeological features and exposing some of them in section. The remains visible in the erosion face are not directly associated with the ruins that can be discerned on the surface – the latter no doubt being much more recent. The section showed that in this location the original ground surface had been stripped off as anthropogenic deposits (g) rested directly on the prehistoric H3 tephra (h). The anthropogenic material was capped by streaks of the H-1158 tephra, but it was not possible to

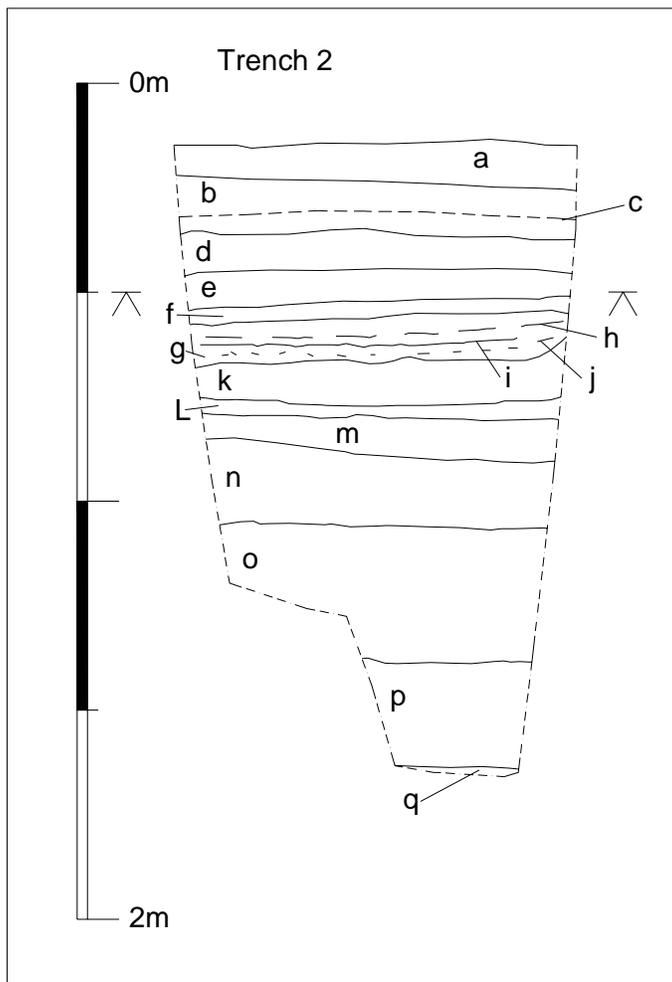


Fig. 36. The farm mound (F) with early modern fold in foreground, looking SSE towards Sellandafjall.

ascertain whether these were in situ or not, although in situ is more likely. The stripping of the original surface down to H3 may indicate that this is the location of a sunken fetured building.

Trench 2 was a 1x1 m hole originally excavated in order to locate midden deposits on the edge of the farm mound. No rich bone deposits were found and such were not revealed either by a limited coring programme. The trench however proved to be interesting and its west facing section was recorded (Fig. 37.). In the trench natural was reached at a depth of 1,3 m. The undisturbed layers included the black bands of tephra forming the lower parts of the Landnám sequence, but the upper tephras, from AD 871±2 and ~950 are missing. At the base there is a series of anthropogenic deposits (k, l, m, n, o) reaching a thickness of 70 cm. These seem mainly to be building debris and only one lens (l) had significant amounts of ash. These deposits are capped by natural accumulations (e, g, h) with undisturbed tephra layers from H-1158, H-1300 and 1477. Human activity is indicated again by a layer of turf debris (d) which is under a tephra layer, provisionally identified as V-1717.

This trench therefore suggests significant activity at Oddastaðir during the Viking age with abandonment before 1158 and a short spate of occupation between 1477 and 1717,



Trench 2, legend

- a Topsoil
- b Greyish-brown sandy silt,
- c includes c
V-1717?
- d Turf debris
- e Greyish brown sandy silt
= aeolian accumulation
- f "a" tephra, from 1477
- g Greyish brown sandy silt
= aeolian accumulation,
incl. tephra h and i, and lens j
- h H-1300
- i H-1158
- j lens of coarse sand or tephra
- k Dark brown silt with turf flecks and charcoal
- l Light grey ash mixed with brown earth
- m Mixed turf
- n Heavily mixed anthropogenic deposit

- o Less mixed but clearly anthropogenic deposit
- p Natural, includes black layers of the LNS on top, LNL or V~950 absent
- q H3

Fig. 37. West facing section of Trench 2.

presumably to be associated with the historically recorded occupation around 1680.

Discussion

The limited investigations carried out at Oddastaðir in 2002 clearly show that the site was occupied during the late Viking age and was abandoned before 1300. In two of the trenches the archaeological deposits were capped by a tephra from 1158 but in one (Trench 3) this



Fig. 38. Oddastaðir viewed from SSE. The figure is standing by the homefield boundary, some 20 m from the erosion front.

tephra may be disturbed, indicating occupation beyond 1158. The homefield boundary was built comparatively late, probably in the 11th century. While this does not have to reflect the date of the earliest occupation of this site it does suggest that Oddastaðir was not among the earliest sites settled in Mývatnssveit (unlike its next neighbour to the north, Sveigakot) and that the farm was relatively short-lived, possibly inside a century. The failure to locate a midden, and the resulting lack of a animal bone assemblage, makes the identification of this site as a farm less certain. However the structural evidence, the boundaries, the number, diversity and spread of structures as well as the depth and complexity of the archaeological deposits strongly indicate that Oddastaðir was a farm with year-round occupation.

Archaeological evidence was found for the late 17th century occupation of the farm and it is apparent from structures visible on the surface as well as historical evidence that the site has been reused as a shieling at various times since its abandonment as a farm.

On the face of it Oddastaðir would seem to be a classic example of a settlement overshoot, the unsustainable occupation of the highland margins attributed to many high altitude

sites from the late Viking age in Iceland.¹⁸ The altitude of the site (c. 365 m.a.s.) alone makes it a much less viable farm than even Sveigakot (at 286 m.a.s.) or the other farms in Mývatnssveit (closer to 250 m.a.s.). The shortlived occupation of the site in the late 17th century may be taken as confirmation of the basic unsustainability of this farm site. The possibly late occupation of the site (11th century?) might also be used to suggest that Oddastaðir belongs to the last stage of the settlement process, a final – and eventually unsuccessful – push into the central highlands.

Alternative explanations can be proposed. Given that Oddastaðir was an independent farm – and not an inflated shieling or some sort of out-station from a neighbouring farm – it follows that its establishment must have reduced the land available to others, Sveigakot being the obvious loser. If Oddastaðir was established in the 11th century it may have coincided with the decline of Sveigakot and possibly even the shortlived abandonment of Sveigakot in the mid to late 11th century. Oddastaðir may therefore be Sveigakot relocated – an attempt to save the concern by moving it to a new location – or one of the contributing reasons to the decline of Sveigakot in the 11th century. This can all be seen in terms of crisis, desperate attempts to prolong the life of unviable farms, but it can also be viewed as symptoms of a more dynamic economic and social structure than we know from later centuries. If Oddastaðir is Sveigakot relocated it does not have to be interpreted as a defensive move – it could just as well have been (a probably misguided) attempt to increase the scope of the economic operation. If Oddastaðir was established in competition with Sveigakot it can also be seen as a dynamic move. If say, both households were clients of a landowner and/or petty chieftain (e.g. in Grænavatn) their establishment reflects increase in status and possible expansion of political and economic might.

Such speculation is necessary, if only to put earlier hypotheses into perspective and caution against too rigid interpretations, but it will always be difficult to choose between these alternatives. It is possible however to say that the pattern of settlement in the southern part of Mývatnssveit in the late Viking age is not optimal for sheep husbandry. There are simply too many farms with too little pasture for each. It follows from this that these farms were not established as sheep stations, but small cattle and pig farms, relying more on meadows and

¹⁸ Sigurður Þórarinnsson (1977): 'Gjóskulög og gamlar rústir. Brot úr íslenskri byggðasögu.' *Árbók hins íslenska fornleifafélags 1976*: 5-38; Sveinbjörn Rafnsson (1990a): *Byggðaleifar í Hrafnkelsdal og á Brúardölum*, (Rit Hins íslenska fornleifafélags I), Reykjavík; Guðrún Sveinbjarnardóttir (1992): *Farm Abandonment in Medieval and Post-Medieval Iceland: an Interdisciplinary Study*, (Oxbow Monograph 17), Oxford.

infields as well as possibly woodland resources, as open rangeland. The results of the Steinbogi midden investigations suggest that by c. 1200 sheep farming had become the main focus of animal husbandry in Mývatnssveit, replacing cattle, and to some extent pig, which had been emphasised during the Viking age. It is simplest to see the abandonment of sites like Oddastaðir, Sveigakot and Steinbogi in this light: Successful sheep farming requires extensive rangeland and it is clear that the abandonment of these farms must have benefited others, no doubt better placed farms like Grænavatn, Baldursheimur and Helluvað.

Archaeological investigations at Stöng

Introduction (BL)

Ruins, thought to be of an abandoned farm and known to most locals as *Stöng*, lie some 2 km north of Reykjahlíð farm at the northeastern corner of Lake Mývatn. In August 2002 a small trench was excavated in one of the ruins as a part of the reconnaissance scheme of the LML project.

The ruins are located on a low, grassy ridge, surrounded by lava fields on all sides except the north one. The lava originates from a still active volcano northeast of lake Mývatn, Leirhnúkur, which erupted in the years 1724-1730. This prolonged eruption, Mývatnseldar, caused great changes in the area in 1729. Lava flowed into the lake cutting off its northernmost part and forming individual ponds, now known as *Slyin*.¹⁹ Contemporary sources mention three farms destroyed by this catastrophe: Fagranes, Gröf and Reykjahlíð.²⁰ The last one, the main farm and the most valuable in the whole Mývatn area, was rebuilt right at the margin of the lava flow, close to its original location, but the other two were permanently ruined.

Location and names of sites: Discussion (BL)

There has been some confusion with the farm names *Stöng* and *Gröf* in later times. The aforementioned ruins are now known to most locals as *Stöng*, named so in place-name registers and are marked as such on published maps. It has been pointed out by Jón Sigurgeirsson, a local amateur archaeologist, that the oldest written text now available mentioning *Stöng* does not suit these ruins at all.²¹ This text is from the Land Register of 1712:

Staug is the name of ancient farm ruins in the land just above Gröf and still some remains of ruins and boundaries can be seen there although the place has not been inhabited since old times. It is not possible to inhabit the place again because lack of hay, the homefield is covered with heather and brushwood.²²

¹⁹ *Náttúra Mývatns*, p. 17. Arnþór Garðarsson and Árni Einarsson ed. Reykjavík 1991.

²⁰ *Safn til sögu Íslands* IV.

²¹ Jón Sigurgeirsson: Gröf og Stöng. Örnefnastofnun Íslands. Manuscript.

²² *Jarðabók Árna Magnússonar og Páls Vídalíns* XI, p. 238.



The site Stöng, surrounded by lava from 1728, viewed from the south. The spoil from the trench in structure A can be seen on the top of the ridge. Behind are the ponds Slýin.

Sigurgeirsson points out that the last sentence can hardly apply to the ruins called Stöng since the area is very grassy and was used for haymaking until the twentieth century. Therefore Jón believes that the original name of these ruins is *Gröf* and that the name *Stöng* belongs to yet other ruins 1 km to the northeast. These ruins, known as *við Viðiker* were also investigated in 2002 and will be discussed later in this report. This suggestion needs further discussion.

Gröf is recorded in the 1712 Land Register as an inhabited farmstead, a subsidiary farm to Reykjahlíð manor. It is said to have been established before living memory. It is crucial that according to the Register, Gröf was located by Reykjahlíð's homefield ("við sjálft heimatúnið"). It must be agreed that it is not a good description of the location of the ruins discussed here since they are 2 km north of Reykjahlíð. Eysteinn Tryggvason, another amateur archaeologist, has suggested that a word is missing from the Register's text and it intended to say "utan við sjálft heimatúnið" or "outside the homefield", not mentioning the distance at all.²³ This is doubtful.

²³ Eysteinn Tryggvason: Stöng og önnur eyðibýli við norðanvert Mývatn. In: *Árbók Þingeyinga* XXXIV, p. 25-

It must be pointed out here that about 400 m north of Reykjahlíð, two small ruins can be seen within 5 m from the margin of the lava field together with a boundary wall that has been partly destroyed by a road, leading to one of the main camping grounds in the Mývatn area. In the place name register for Reykjahlíð, Gröf is said to be 500 m north of Reykjahlíð's church, right at the margin of the lava field and that location suits these ruins almost perfectly.²⁴ Although the register claims that no remains of the farm are visible today it must be referring to the farmhouses themselves, not other structures or boundary walls. Otherwise it is unlikely that the location could have been described with such precision.

Sigurgeirsson believes that after the lava flowed around the ridge where he believes Gröf is, the place became a practical enclosure for sheep, the dung enriching the soil and making it ideal for haymaking. This could in fact explain why the area described in 1712 as covered in heather and brushwood is now a small hay meadow: after the eruption the farmers in Reykjahlíð found the place convenient for enclosing animals, their dung gradually fertilising the soil and changing the vegetation to the grassland that it is today.

At this point there seems no good reason to change the names of the sites. *Stöng* is the site discussed here and *Gröf* is most probably the ruins near the camping ground. The ruins Jón Sigurgeirsson believed to be Stöng, further up in the moor, will be discussed later and referred to as *við Viðiker*. This matter is relevant as Stöng is not mentioned in any contemporary sources relating to Mývatnseldar. If we accept what is stated above about the location of Gröf and Stöng it means that Stöng was not inhabited in 1729 and therefore not affected by the catastrophic events. Gröf on the other hand was almost completely obliterated and permanently abandoned.

Previous work (BL)

Apart from the reference to Stöng in the Land Register of 1712 and the place name register already mentioned, Stöng has not been the subject of any systematic inquiry until Jón Sigurgeirsson described the ruins and made a rough sketch of them at an unknown date, probably in the 1980s. His sketch shows four main structures, surrounded by lava on three sides and a boundary at the northern side of the structures. Sigurgeirsson was most interested in the largest ruin, a simple elongated structure, facing north-south. In a description written

37.

later Jón concludes that the ruins are those of an ancient farm, possibly dating to the earliest settlement of Iceland. It seems that he bases his theory on the shape of the large structure which he calls “skálatótt” (longhouse ruin) and also on floor layers containing charcoal and ash that he found some 50 cm beneath the surface.²⁵ Obviously he has made a small excavation but there is no further description of it or its exact location. Two of the other ruins he said were most likely sheephouses and the third one he claimed was that of a later farm, probably the one destroyed by the Mývatnseldar eruption in 1729. This ruin was, judging from his sketch, quite distinct and was divided into several rooms.

Stöng was surveyed again in July 1999 as a part of the general survey of archaeological sites in Skútustaðahreppur. A sketch was made and the site’s position measured as 65°39.638N and 16°55.718W. The multi-roomed structure Sigurgeirsson detected was described and said to be: “nothing more than unclear depressions without definite walls”.²⁶

The 2002 excavation of structure A (BL)

Investigations at the site commenced on the 15th of August 2002, focusing on the large structure (A). It resembles known longhouses from the Viking Age. The aim of the excavation was to find out if the structure in fact was a dwelling, how old it was and how long the occupation had lasted.

The site consists of several ruins, the largest one (A) measuring 22 meters in length (N-S) and 6-7 meters in width. No doorway is visible as a depression through the middle of the western wall is probably an old track. Also worth noting is an unclear wall in the southern part of the ruin, possibly dividing it in two. It appears to be more recent than the main walls and may be a later addition.

A trench, 3,4 m long and 0,65 m wide was dug in the middle of the western wall, some 1,5 m south of the aforementioned depression. The eastern end of the trench reached the middle of the inside of the structure but the western part ended in the middle of the wall as seen on the surface. Around 10 cm under the surface a very clear, dark grey and coarse tephra was detected in the whole of the trench, consistent with descriptions of the tephra from the eruption of Veiðivötn in 1717. Underlying was a layer of dark brown, homogenous soil,

²⁴ Örnefnalýsing Reykjahlíðar, skráð eftir Pétri Jónssyni í Reynihlíð. Örnefnastofnun Íslands.

²⁵ Jón Sigurgeirsson: Gröf og Stöng. Örnefnastofnun Íslands. Manuscript.

²⁶ Birna Lárusdóttir et al.: Fornleifaskráning í Skútustaðahreppi IV, p.67. FS118-96014. Fornleifastofnun Íslands.

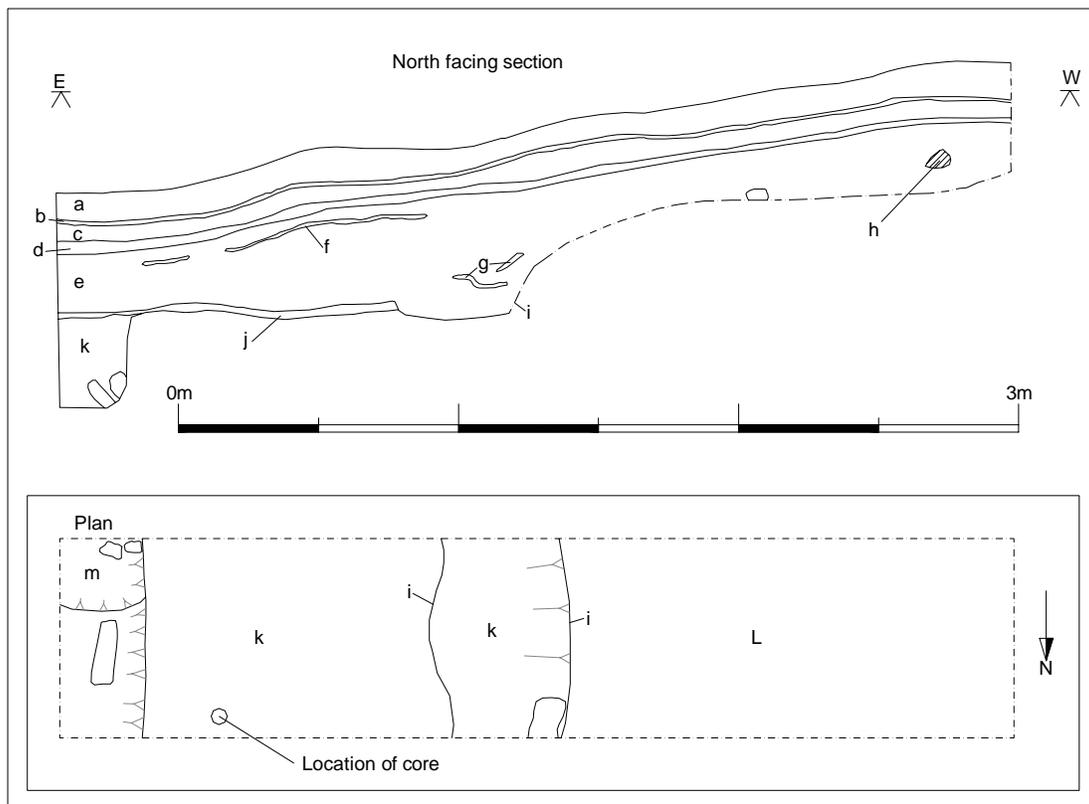


The trench in structure A, viewed from the NE.

probably windblown material. Then a very clear and well-known tephra in the area, the so called “a” tephra, from 1477, emerged. It clearly seals all occupational layers in the structure. Tight under the “a” layer there were clear signs of occupation: A thick turf layer, consisting more of debris than actual wall. It had definite inclusions, e.g.. charcoal bits and occasional bone fragments. In the western part of the trench the actual turf wall was reached at 17-22 cm depth. In the eastern part of the trench yet another tephra was detected in situ 5-7 cm under the aforementioned “a” tephra. It is grey and was tentatively identified as tephra from the Hekla eruption of 1300. Under that there was turf debris again for another 10-15 cm before a thin, pinkish, organic layer was reached. It proved to be sealing a very rich floor layer. A single, oblong stone was found on top of the floor. It could be the part of a feature, possibly a fire place.

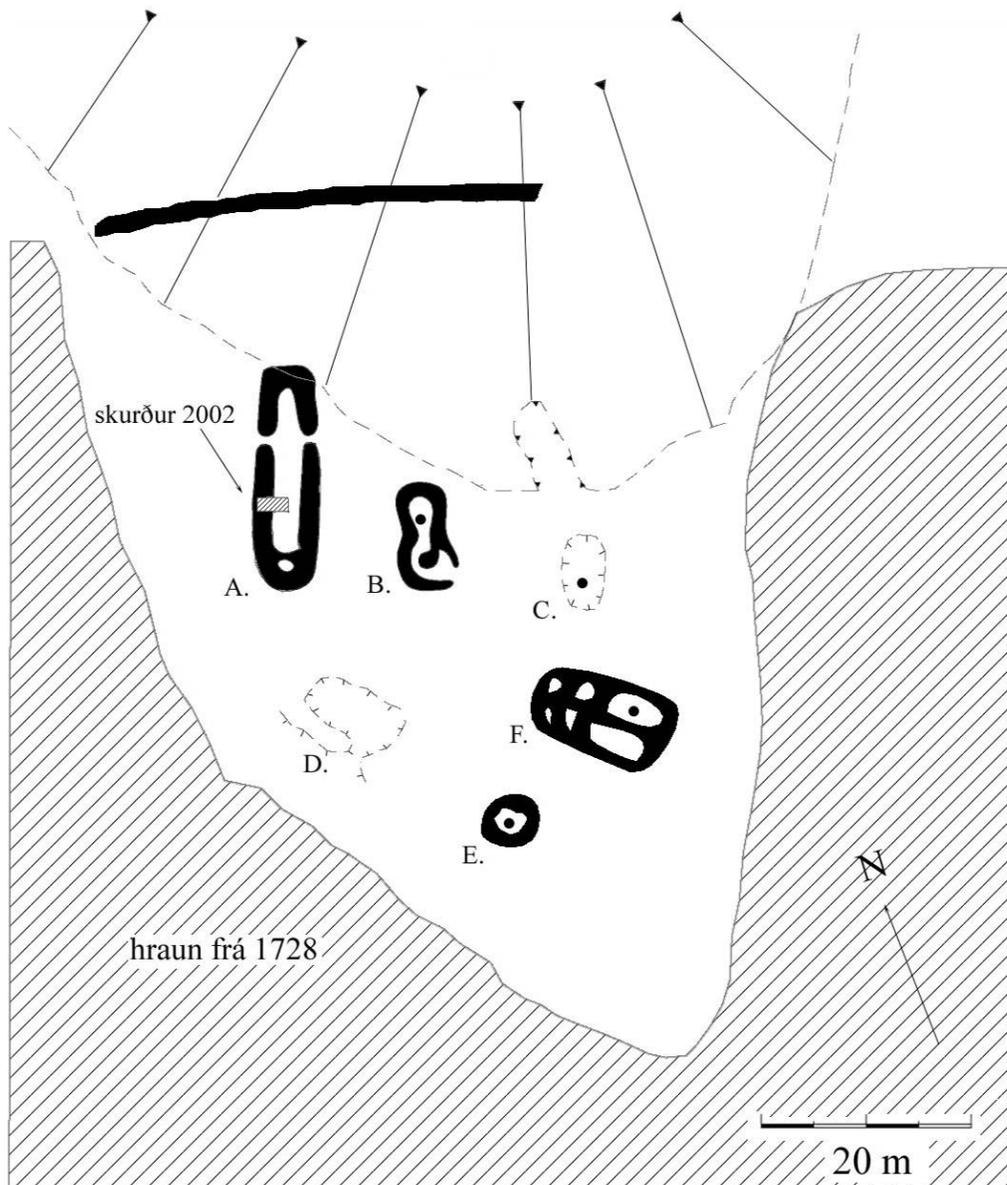
In order to determine the nature and thickness of the floor layer it was decided to dig further down in the northeasternmost corner of the trench, a square of about 25 x 25 cm. The floor layer turned out to be at least 25 cm thick.. It consisted of many black, charcoal rich layers, separated by compressed layers of brown earth. Underneath them a pinkish-brown

ash layer appeared but was not explored further. The floor layers point to much activity on site, possibly seasonal judging from the repeated division between brown and black. The trench, however, only gives a glimpse into these complex remains which would require extensive investigation in order to cast light on the true nature of the site. One core was drilled in the floor up against the northern edge of the trench, some 40 cm NW of the test-square. There, the floor layer was somewhat thinner than in the corner (14-17 cm). Underneath it the prehistoric H3 tephra was clear, in situ, suggesting that the base of the structure is dug down.



Description:

- a Topsoil
- b Dark grey, coarse tephra, V-1717?
- c Dark brown, windblown material
- d "a" tephra from 1477. Fine tephra, darkgrey at the bottom but paler in upper part.
- e Turf collapse, light reddish-brown with patches of darker soil, especially in eastern part. Inclusions: Frequent small charcoal bits (<3 mm) and a few bone fragments.
- f Grey tephra, H-1300?
- g Traces of extremely white and fine tephra, 1158? Possibly in turf debris.
- h Patch of black charcoal.
- i Cuts.
- j Pale brown, pinkish organic layer, sealing the floor.
- k Built-up floor layers.
- l Top of turf wall
- m Top of pinkish-brown ash layer (peat ash?).



Other structures at Stöng (OV)

Structure A is the largest and most visible structure at Stöng but on the same spit of land surrounded by the 1728 lava on all sides but the northern there are at least 5 other possible buildings as well as an earthwork across the ridge to the north. A sketch was made of these structures, they were numbered and each one of the 5 more or less clear structures were cored. A description of the structures and the cores follows:



Stöng from viewed from the northeast, surrounded by the 1728 lava field. Lake Mývatn in the background.

- B.** Structure B is within 10 m east of A and looks as if it might be more recent judging from the height of the walls (~ 1 m) and the vegetation. It is 9 m long and 6 m wide and consists of 2 or 3 separate but connected rooms and has a south facing door. A core taken in the northern end of this structure had the “a” tephra from 1477 at a depth of 19 cm and the H-1300 tephra at 21 cm. Below that there was a mixed anthropogenic layer (most likely turf collapse) at 23-40 cm and underneath that a 2 cm thick, compacted, fatty, pitch-black layer which has all the characteristics of a floor in a dwelling. Below that at 42 cm below the surface was natural, and H3 at 45 cm. No traces of the LNS could be seen, suggesting that the structure is slightly sunken. From the position of the provisionally identified tephra layers it appears that this structure was abandoned before 1300 and that it may be contemporary with structure A.
- C.** Structure C is a regular depression some 25 m east of structure B, aligned north-south. It is some 10 m long and 6 m wide on the inside. It is dug into a slight slope and only has a discernible wall on the eastern longside. A core in the middle of this structure

had the “a” tephra from 1477 at a depth of 15 cm below the surface. Below that there was aeolian accumulation down to 40 cm, the a 5 cm thick layer of anthropogenic material (probably turf collapse) and below that a 15 cm thick layer of slightly mixed earth. At 60-61 cm there was a thin layer of charcoal on top of natural and a stone or a very compacted surface at 70 cm. While the H-1300 tephra could not be seen in the core the depth of the anthropogenic layers suggests that this structure may also be contemporary with A and B.

- D.** Structure D is a regular depression some 15 m south of A and B, aligned NW-SE. It is 13x7 m on the inside. It is dug into a slight slope and only has a discernible wall on the SW side where there also is a doorway. A core in the middle of this structure had the “a” tephra from 1477 at a depth of 15-18 cm, below that aeolian accumulation and at 38-50 cm a layer of mixed earth with charcoal, but no clear surface layer.
- E.** Structure E is some 15m SE of D on the same alignment, and some 10 m south of F. It is a small rectangular structure, some 8 by 7 m, with distinct positive walls and a relatively deep depression on the inside. The dimensions and characteristics of this structure suggest that it may be a pit-house. A core in the middle of this structure had a dark tephra (possibly V-1717) at a depth of 12 cm below the surface, and the “a” tephra from 1477 at a depth of 20 cm. Below that there was aeolian accumulation down to 31 cm where there was a 1 cm thick compacted and fatty layer, much like the one identified as a dwelling floor in structure B. Below this layer there was a 14 cm thick anthropogenic layer but at 46 cm the core hit a stone or a very compact surface.
- F.** Structure F is midway between structure C and E and has the same alignment as D and E. It is divided into six cells in two parallel rows, the cells on the SE end being much larger than the other four. In all the structure measures 20 by 14 m. A core in the middle of the more northerly of the two large cells on the eastern end had the “a” tephra from 1477 at a depth of 16 cm, below that aeolian accumulation and an anthropogenic layer at 21-27 cm. Below that aeolian accumulation and a stone at 44 cm below the surface.
- G.** G is a slight depression north of structure C. It may be a man made feature, dug into the slope, but it was not cored and its identification therefore remains to be verified.
- H.** A sunken boundary lies E-W some 20 m north of structure A. Both of its ends have eroded away on the steep sides of the ridge. It is built of stone but is completely overgrown except at the eroded ends.

Results (BL & OV)

Structure A at Stöng shows clear signs of occupation. It was occupied and abandoned well before 1300 as the walls had collapsed at that time. There is no indication of occupation after 1300. The floor layers observed may indicate that at least in its later phases of use the structure was seasonally occupied, possibly as a sheiling. Otherwise the architectural features observed are all consistent with medieval dwellings. The wall seems to be made from turf exclusively although it is possible that it has an external stone facing. The ruin resembles some Viking Age long-houses that have been excavated in Iceland. The ones that it bears most resemblance to, in Hvítárholt and Bessastaðir, have been dated to the Viking age.

Bearing in mind the limitations of coring as a means of obtaining sound archaeological information, the cores drilled into the other structures at Stöng suggest that there is no post-medieval occupation of this site. Structures A and B seem both to have been abandoned before 1300 and while the H-1300 was not observed in the cores in the other structures their respective anthropogenic layers are all well below the 1477 horizon, also suggesting a high-rather than late medieval date. Structure F – the layout of which is very different from the other structures and in fact quite unusual – may be the most recent building on the site with anthropogenic layers 5 cm below the 1477 horizon. The absence of the H-1158 tephra – which is quite distinct at við Víðiker only 1 km away – may indicate that Stöng was occupied at the time of that eruption.

As to function structures A, B and E have surface layers which may represent floors of dwellings, whereas structures C, D and F do not have comparable layers and may thus be provisionally identified as animal stalls, pens or storage rooms.

The site is promising in a broader context and could without doubt provide extremely important comparative material with other sites under investigation in the area.



The ruins at við Víðiker from the NE. The buildings can be made out just to the left of the birch trees and the enclosure wall lies behind. Lake Mývatn in the distance and to the left of the the upper half of the picture the 1728 lava can be seen blocking the ponds Slýin, close to the site Stöng.

Orri Vésteinsson

við Víðiker

Introduction

One of the sites targeted for investigation in 2002 as a part of the reconnaissance scheme of the LML project lies about 1 km northeast of Stöng by a large depression called Víðiker. The site itself has no name but is identified by its proximity to this depression as “við Víðiker”. It is in Reykjahlíðarheiði and belongs to the farm Reykjahlíð.

There are no records of this site until the 20th century, although as discussed in the chapter about Stöng it has been suggested that the “Stöng” described in the 1712 Land register might be this site. As has been argued it seems that this idea has little to recommend it and here the traditional identifications will be adhered to.

The place name register of Reykjahlíð does not mention any ruins by Víðiker²⁷ and it seems that the site is nowhere mentioned in writing until Eysteinn Tryggvason published his article on abandoned farms north of Lake Mývatn in 1991. He publishes a map of the site showing three structures enclosed by a boundary and comments that the most clearly visible ruin is of a “skáli” 14 m long and 5 m wide. He shows a gate on the boundary and indicates a lane from the gate to the two main structures. He has calculated that the area inside the enclosure is 4150 m² or nearly half a hectare. He also says that the boundary is very clear “which suggests that it was kept in repair for a long time” but adds that the repairs had ceased by 1477 “although not long before”. Although it is not clearly stated the reference to the tephra suggests that Eysteinn had himself carried out an excavation of the boundary or had access to information about such an investigation.²⁸ Another local enthusiast – known for his test trenching of sites around Mývatn and for his knowledge of tephras gained from working with geologist Sigurður Þórarinnsson - Jón Sigurgeirsson has also left some information about við Víðiker. In a typewritten manuscript placed with the Placename institute in Reykjavík on July 1st 1995 he argues for the identification of Stöng as Gröf and of við Víðiker as Stöng but does not describe við Víðiker further. He had however made his own map of við Víðiker, a copy of which he gave to the Institute of Archaeology shortly before his death in 2000. This map (marked “Stöng – fornþýli í Reykjahlíðarheiði”) is more schematic than Eysteinn’s and clearly not based on the same measurements although it shows all the same features. Jón Sigurgeirsson was active in his investigations in the 1980s and early 1990s and it may therefore be that his records predate those of Eysteinn’s and it maybe that it was Jón that identified the 1477 tephra.

In 1999 Birna Lárusdóttir carried out a survey of the Reykjahlíð estate and registered the site við Víðiker. She measured its location as 65°39.998 N 16°54.848 V and wrote the following description:

“The ruins are oblong, between 12 and 14 m long and all are 5 m wide. The one in the middle is most elevated, aligned N-S, and looks at first as a concave hill. It is 14 x 5 m and is divided into two equally sized rooms. At a 90° angle to the west of this ruin there is a long-house, undivided with an indistinct eastern gable end. This ruin is in a shallow depression and is discernible mainly because of differences in vegetation, i.e. dwarf birch on the walls and willow on the inside. The third ruin is 43

²⁷ Örnefnalýsing Reykjahlíðar, skráð eftir Pétri Jónssyni í Reynihlíð. Örnefnastofnun Íslands.

²⁸ Eysteinn Tryggvason: Stöng og önnur eyðibýli við norðanvert Mývatn. In: *Árbók Þingeyinga* 34 (1991), pp. 32-33.



The test pit at við Viðiker, from SE. The wall of the enclosure is marked by dwarf birch (*betula nana*) whereas willow (*salix*) grows on either side of it.

m to the east and is the most indistinct of them all. ... Around these ruins there is a boundary [which] is very sunken but can be seen because of differences in vegetation. It is most indistinct on the southern and southeastern side.”

Fieldwork in 2002

On August 15th 2002 the site was visited and a small test trench (0,6 m long and 0,4 m wide) was dug into the boundary, due south of the two principal structures. The fieldwork was limited to digging and recording this small trench and taking a series of photographs of the site – a thankless endeavour as the site is thigh-deep in vegetation and the earthworks only show because different plants grow on the walls than to their sides (see photograph).

In the test pit the “a” tephra from 1477 was observed at 16-18 cm below the surface, and the H-1300 2,5 cm below that. At 29 cm below the surface the distinctly white 12th century Hekla tephra (either 1104 or 1158 – probably the latter) was sitting directly on top of a collapsed turf wall with tephra stripes from the Landnám sequence, although only the black stripes could be seen and not the olive-green layers from ~871 and ~950. The turf collapse rested on a bank of upcast with specks of the H3 tephra in it.

The test trench therefore indicates that the enclosure had already collapsed by 1104/1158 marking við Víðiker as a Viking age site. Without further investigation little can be said about the function of this site. Its location and the size of the homefield may suggest that this is not a full-fledged farm site, but rather a shieling or out-station of some sort. It is clearly comparable with sites such as Geldingatættur north of Hofstaðir and Þrælagerði by Hörgsdalur.

Samantekt

Sumarið 2002 voru gerðar minniháttar rannsóknir á nokkrum stöðum í Mývatnssveit undir merkjum verkefnisins “Landnám og menningarlandslag” sem nýtur öndvegissstyrks frá Rannís 2002-2004. Þungamiðja verkefnisins eru uppgreftir á Hofstöðum og Sveigakoti, en samanburður á þessum ólíku stöðum frá víkingaöld hefur gefið alveg nýja mynd af þróun byggðar í Mývatnssveit á landnámsöld. Sumarið 2001 voru gerðar minniháttar athuganir á Hrísheimum og í Selhaga. Báðir þessir staðir reyndust vera frá miðöldum og voru tekin allstór sýni af dýrabeinum til greiningar. Á grundvelli þessara rannsókna var ákveðið að kanna fleiri staði og var markmiðið annarsvegar að afla betri gagna til að grundvalla val á nýjum rannsóknarstöðum á og hinsvegar að reyna með litlum tilkostnaði að tímasetja og skilgreina byggð á sem flestum stöðum til að fá betri mynd af þróun byggðar og samfélagsskipan á víkingaöld. Áhersla verkefnisins hefur verið á Mývatnssveit en sumarið 2002 var byrjað að færa út kviarnar og gerð forkönnun á Höfðagerði í landi Núpa í Aðaldal. Fyrir þeirri rannsókn er gerð grein í sérstakri skýrslu.²⁹ Auk Sveigakots og Hofstaða var grafið á sex stöðum í Mývatnssveit: Steinboga í landi Helluvaðs, Hrísheimum í landi Baldursheims, Oddastöðum í landi Grænavatns, Stöng og við Víðiker í landi Reykjahlíðar og Brennu í landi Geirastaða. Rannsóknin á Hrísheimum beindist að meintum gröfum en þar hafði verið grafið árið áður í öskuhaug og var þeim rannsóknum framhaldið sumarið 2003. Greinargerð um grafirnar verður birt sérstaklega. Á Steinboga voru rannsóknirnar tvíþættar því annarsvegar var grafið í garðlög og útihús á vegum Vegagerðarinnar á Akureyri vegna fyrirhugaðrar færslu Hringvegarins, og hinsvegar var grafið í öskuhaug framan í bæjarhól undir merkjum rannsóknarverkefnisins “Landnám og menningarlandslag”. Sérstök skýrsla hefur verið gerð um rannsóknir sem gerðar voru vegna fyrirhugaðrar vegagerðar,³⁰ en ágríp er gefið af þeim í þessari skýrslu auk nákvæmari greinargerðar um öskuhaugs- og dýrabeinarannsóknirnar sem hér birtist.

Steinbogi er eyðibýli allhátt uppi í brekkunni ofan við Laxá þar sem hún beygir til norðurs. Á þessum stað voru beitarhús frá Helluvaði á 19. öld en samkvæmt jarðabók Árna

²⁹ Aldred, Oscar & Adolf Friðriksson (2003): *Archaeological assessment, Höfðagerði, Núpar 2002*, Rv.

³⁰ Orri Vésteinsson (2003): *Fornleifarannsókn á Steinboga í Mývatnssveit 2002*, Rv.

og Páls er Steinbogi fornt eyðibýli. Grafið var í gegnum túngarð sem byggður var skömmu eftur að V~950 gjóskan féll en áður en gosið í Heklu 1158 varð. Ummerki um mannvist sjást á nokkrum stöðum milli H-1158 og H-1300 en bærinn hefur verið kominn í eyði fyrir 1158. Í suðurhluta túnsins var grafin fram lítil bygging sem túlkuð var sem fjárhús og önnur sem var sambyggð túngarðinum og túlkuð sem heygardur. Grafið var í öskuhaug framan í bæjarhólnum og benda kolefnisgreiningar til að sá haugur sé frá um 1200, væntanlega lokaskeiði byggðar á Steinboga. Samsetning dýrabeinasafnsins er önnur en á eldri stöðum í Mývatnssveit sem rannsakaðir hafa verið til þessa. Á Steinboga er sauðfé allsráðandi, í svipuðum hlutföllum og þekkjast úr ritheimildum frá seinni öldum, en miklu minna að tiltölu af nautgripum og svín varla nokkur. Þetta safn bendir því til að umtalsverðar breytingar hafi orðið á búskaparháttum í Mývatnssveit á tímabilinu 1050-1200.

Túnið í Steinboga hefur verið lítið (innan við 1 ha) og það ásamt staðsetningunni bendir til að Steinbogi hafi verið smábýli. Öðru máli gegnir um Brennu, sem er við Sandvatn, nyrst í landi Geirastaða. Þar hefur verið stórt tún (meir en 4 ha) og landrými í kring mikið, auk hlunninda í vatninu. Þar var grafið í tvo samhliða túngarða sem báðir reyndust fallnir fyrir 1158. Einnig var gerð könnunarhola í öskuhaug við bæjarhólinn og komu þar í ljós vel varðveitt dýrabein, en ekki var reynt að taka sýni af þeim. Þó frekari rannsóknir þurfi til að staðfesta tímasetningu byggðar í Brennu, bendir flest til að bærinn sé eitt af frumbýlunum í Mývatnssveit en hafi farið í eyði mjög snemma. Líkur eru leiddar að því í skýrslunni að eyðing Brennu standi e.t.v. í sambandi við stofnun Hofstaða sem pólitískrar miðstöðvar í lok 10. aldar.

Oddastaðir eru nyrst í Sellöndum, um 5 km sunnan við Sveigakot. Þar er meðalstórt túnstæði og allmargar byggingar. Snið í gegnum túngarð sýndi að garðurinn var byggður alllöngu eftir 950, e.t.v. á 11. öld, en að hann hefur verið hruninn fyrir 1158. Könnunarskrúður framan í bæjarhól gaf svipaða niðurstöðu en þar höfðu mannvistarlög hætt að hlaðast upp fyrir 1158. Í þriðja skurðinum voru slitur af H-1158 sem gætu verið hreyfðar og væri það þá vísbending um mannaferðir á Oddastöðum eftir 1158. Ljóst virðist þó að staðurinn hefur veirð kominn alveg í eyði fyrir 1300 en ummerki fundust um byggð milli 1477 og 1717, sem líklega má tengja við frásögn jarðabókar Árna og Páls af skammærri byggð á Oddastöðum í kringum 1680.

Á Stöng, við Slýin norður af Reykjahlíð, var grafinn skurður í skálalaga byggingu. Sú bygging hefur verið fallin löngu fyrir 1477, en hversu löngu er ekki hægt að segja með vissu. Í byggingunni er kolagólf og eldstæði í miðju og virðist mega túlka hana sem skála. Allmiklar byggingar aðrar eru á þessum stað, en hraunið frá 1728 hefur runnið yfir hluta

túnsins. Borað var í hinar tóftirnar og í tveimur þeirra sást H-1300 yfir mannvistarleifum. Líklegt verður að telja að Stöng hafi lagst í eyði fyrir 1300 eins og svo margir aðrir staðir í Mývatnssveit.

Um 1 km norðaustar í Reykjahlíðarheiði eru tóftir og lítið hringlaga gerði utanum við Víðiker, en rústirnar sjálfar bera ekkert nafn. Könnunarhola í túngarð sýndi að hann hefur verið hruninn saman fyrir 1158. Af stærð gerðisins og umfangi tóftanna verður þó ekki ályktað að búið hafi verið á þessum stað, heldur hefur þetta fremur verið sel eða einhverskonar útstöð frá Stöng eða Reykjahlíð sem mjög snemma hefur lagst af.

Þessar niðurstöður sýna svo ekki verður um villst að í Mývatnssveit hafa fjölmargir bæir lagst í eyði mjög snemma, flestir sennilega milli 11. og 13. aldar. Suma, t.d. Hrisheima, Sveigakot og Oddastaði, mætti túlka sem staði sem ekki voru forsendur fyrir til langframa, þeir hafi verið of hátt uppi og umhverfið ekki þolað til lengdar það álag sem búskapnum fylgdi. Slíkar skýringar ganga hinsvegar ekki upp fyrir Stöng, Brennu eða Steinboga – hvað þá Höfðagerði í Aðaldal – og virðist skynsamlegra að leita orsaka þessarar þróunar í öðrum þáttum en umhverfinu. Ljóst er að byggð hefur verið sýnu þéttari í Mývatnssveit á víkingaöld en seinna varð, býlin hafa verið allt að 50% fleiri, og hugsanlega að sama skapi minni. Breytinguna má e.t.v. tengja við þann gríðarlega vöxt sem hafði orðið í sauðfjárbúskap ef marka má öskuhauginn í Steinboga. Sauðfjárbúskapur krefst landrýmis og má vera að minni býlin, ekki síst þau sem lágu að afréttunum, hafi orðið fyrir barðinu á útbennslu þeirra stærri og verið lögð niður til að stækka beitiland hinna sem eftir urðu.