

Archaeological investigations at Sveigakot 2002

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Introduction

In 2002 work continued apace at the Sveigakot site. As in previous years the excavation of the long house on the northern side of the site was led by Karen Milek and the excavation of sunken buildings on the southern side of the site by Przemyslaw Urbanczyk. On both ends of the site lowest levels of occupation were revealed, and both teams were able to clarify the sequence of events at their respective parts of the site. Excavations of Area T, the sunken buildings on the southern end of the site, are as good as finished, whereas the base layers in Area S, the dwelling on the northern end of the site, remain to be removed.

Important revisions have been made as to the development of the dwelling complex in Area S. It is now believed (Milek below) that this was originally a fairly typical Viking age long house (albeit on the small side), a single structure with bow-shaped long walls and a central hearth. After a period of abandonment – sometime in the 11th century – a new dwelling was built on the ruins. This was a much narrower building than its predecessor but it also had extensions to the north and east. This suggests that the Sveigakot story is not one of simple decline but rather a much more complex development, involving at least two phases of significant investment followed by decline, first in the 11th century and again in the late 12th or early 13th century. The extensions to structure 1 are particularly interesting in the context of the debate on the development of the Icelandic farm-house, and in particular the transition from Viking age building customs to high and late medieval house forms. The byre tucked on to one end of the dwelling only has one parallel in Iceland, the site of Þórarinsstaðir in Hrunamannafréttur in S-Iceland, also a marginal highland site dated to the 11th century. The smaller extension to the north has many more parallels (Grelutóttir, Granastaðir, Ísleifsstaðir, Hvítárholt VIII and IX are the closest – normally believed to be from the 10th century rather than the 11th and 12th as Sveigakot 5). The original use of the extension as a pantry is in agreement with the interpretation of similar extensions at other sites, but the later use of the extension as a kitchen has not been observed elsewhere. This development at Sveigakot may herald the removal of food preparation and heat source from the sleeping area to separate rooms evident in late medieval and early modern Icelandic farm houses. It may also serve as a reminder that the variations the use of space in the Icelandic farm house may always have

been considerable and may have more to do with factors such as location or social status rather than chronological developments.

Two new radiocarbon dates have been obtained. These come from animal bone in midden deposits infilling structure 5, the northern extension to the later dwelling (see Table 1). These give further support to the dating of the final phase of occupation at Sveigakot to the late 12th century.

	context	comment	material	13C/12C ratio	radiocarbon age	calibrated intercepts (means)	calibrated 1 sigma	calibrated 2 sigma
Beta 134146	SVK M 011	Lower midden M	Cattle bone	-21,00%	1110+/- 40 BP	AD 965	AD 890-990	AD 870-1005
Beta 134144	SVK M 002	Upper midden M	Cattle bone	-21,00%	1120+/- 40 BP	AD 910,920,955	AD 885-980	AD 815-1005
Beta 134145	SVK M 012	Upper midden M	Sheep bone	-19,30%	1090+/- 40 BP	AD 980	AD 900-1000	AD 880-1015
Beta 146583	SVK T 055	upper fill of pit house T	Cattle bone	-22,70%	1040+/- 40 BP	AD 1000	AD 980-1020	AD 910-1030
Beta 146584	SVK T 055	upper fill of pit house T	Cattle bone	-21,50%	1010+/- 40 BP	AD 1020	AD 1000-1030	AD 980-1140
Beta 154783	SVK S 558	upper floor layers Str. 1	Cattle bone	-21,40%	930+/- 40 BP	AD 1050,1100, 1140	AD 1030-1170	AD 1020-1200
Beta 154784	SVK S 558	upper floor layers Str. 1	Cattle bone	-21,10%	840+/- 40 BP	AD 1210	AD 1180-1250	AD 1060-1270
Beta 154785	SVK S 558	upper floor layers Str. 1	Caprine bone	-21,40%	930+/- 40 BP	AD 1050,1100, 1140	AD 1030-1170	AD 1020-1200
AA-52495 (GU-9734)	SVK SI 692	Upper midden fill of Str. 5	Cattle bone	-20,70%	840+/-45 BP		AD 1160-1260	AD 1040-1290
AA-52496 (GU - 9735)	SVK S2 767	Upper midden fill of Str. 5	Cattle bone	-21,50%	920 +/- 40 BP		AD 1030-1170	AD 1020-1220

Table 1. Radiocarbon dates from Sveigakot.

At the southern end of the site an unusual type of structure was revealed, an irregular depression interpreted as a food preparation or storage area. Such structures have not been observed previously in Iceland but the ephemeral nature of the remains suggests that similar features might have escaped the attention of earlier researchers.

Just as many questions still remain about the development of Sveigakot in the 11th and 12th centuries, the establishment of the site and its occupation in the 10th century still has to be investigated. So far no structures that predate the V~950 tephra have been located at Sveigakot and only the midden (M) testifies to the early occupation of the site. In 2003 the area between S and T will be investigated. Test trenches have shown that there are

occupational deposits in this area and it is hoped that these will shed further light on the origins and development of Sveigakot.

The excavations were carried out between July 15th and August 16th with the participation of Guðrún Alda Gísladóttir, Karen Milek, Magda Natuniewicz-Sekuta, Jeppe Skovby, Mette O. Svindby, Przemyslaw Urbaczyck, and Robert Zukowski. As before the project is supported by grants from the Icelandic Research Council (Rannís), NSF and The National Geographic society.

Karen Milek:

Area S Interim Report

Introduction

In 2002, excavations in Area S saw the completion of work on Structures 1, 3 and 5, the late 11th to 12th century building complex that had been uncovered during the 2000 and 2001 field seasons. Two earlier buildings, dating from the late 10th to early 11th centuries, were also exposed, one of them in full (Structure 4). The 2002 field season clarified the relationships between these buildings, and answered many outstanding questions about their size, layout, and function, and how they had changed over time. As a result, the tentative phasing of the buildings and their internal features, as outlined in the 2001 interim report (Milek 2002), has been significantly revised. The picture of Sveigakot in its last phase of occupation now looks more complex than it did at the end of the 2001 field season. Rather than a simple scenario of economic decline, in which the number and size of dwellings steadily decreased between the 10th and 12th centuries, it would now appear that the household at Sveigakot was changing and flexible, and that rooms were added, abandoned, and altered as necessary.

Methodology

Since some of the midden deposits that infilled Structure 5 extended beyond the northern limit of the 2001 excavation area, Area S was slightly enlarged in 2002 in order to ensure that Structure 5 was fully exposed. The 6 x 2 m extension gave Area S a total area of 264 m².

As in previous years, the excavation involved the removal of all soil and sediment by hand, and the use of single context recording. The strategy for recovering artefacts and environmental samples was designed to be time effective, and to target those contexts with the greatest potential to provide important information. Midden deposits and features such as post holes and hearths were sampled for flotation/wet sieving (up to 40 L, in 20 L buckets), and the remainder dry sieved on site with 4 mm mesh. From floor deposits, intact block samples were taken for micromorphological analysis, small, clean samples for geochemical analysis were taken on a 50 cm² grid, and 100% of the remaining floor sediment was recovered for flotation/wet sieving on the same 50 cm² grid. All artefacts found during the excavation of suspected floor deposits were given three-dimensional co-

ordinates. Contexts of potentially diverse origins, such as aeolian accumulations and turf collapse, were not sieved, but bone, charcoal, wood and artefacts were hand collected. The wood found in Area S was generally very degraded, but it was collected carefully and double-bagged in order to prevent moisture loss and further decay.

All of the contexts excavated in Area in 2002 are summarised in Table 1, and have been incorporated into the cumulative Harris Matrix for Area S (available in the FSI archive). This interim report presents the results of the 2002 excavation in a sequence of phases from the most recent to the earliest, following the numbering scheme outlined in the 2001 interim report. These phases can be applied only to Area S. Where the results of the 2002 field season have significantly changed the phasing or interpretation of contexts discussed in the 2001 interim report, these changes are also discussed.

Excavation Results

Phase VII: Natural aeolian accumulation from the late 12th century to the present

Most of the windblown sand and silt deposits that had covered Area S after its abandonment were excavated in 2000 and 2001, and the 2002 field season added little new information about this phase. Deflation by wind has been so drastic in the northern part of Area S that the sandy surface deposits (context 549) that were cleared from the new excavation area rested directly on top of yellowish brown, silty subsoil containing the black and dark grey tephra horizons of the *Landnám* tephra sequence. In other words, all historic soils and archaeological deposits had been eroded from this area.

In the subsoil just below the surface in the new excavation area north of Structure 5 there were many small rounded depressions, now filled with coarse sand and aeolian silt, which appear to have once contained stones. Although puzzling at first, it is likely that the stones had been removed by 19th and early 20th century Grænavatn farmers, who are reported to have collected stones from the boulder field at Sveigakot and piled them in small cairns in order to have them readily available as dam-repairing materials in the spring (Orri Vésteinnsson 2001: 45).

Phase VI: Site abandonment and structural collapse in the late 12th century

The deposits associated with the abandonment and collapse of Structures 1 and 2 were discussed in the 2001 interim report (Milek 2002: 11-12). Since the 2002 field season clarified the relationships between all of the structures in the building complex, with the result that Structures 3 and 5 are now

considered to be contemporary with Structure 1, the abandonment and collapse of Structures 3 and 5 are now attributed to Phase VI as well.

Unfortunately, the severity of the wind erosion around Structure 5, which is at the top of the ridge straddled by the Area S building complex, has meant the loss of all soils above the *Landnám* tephra sequence, as well as the loss of all evidence for turf walls and the debris associated with their collapse. The only surviving turf deposits that may be associated with the collapse of Structure 5, contexts 739 and 741, abutted the north side of the wall 607, which served as the north long wall for Structures 1 and 4. These contexts were excavated in 2001.

On the north, east, and south sides of Structure 3, where the wind had also eroded all soils above the *Landnám* tephra sequence, little survives of the walls or turf wall collapse associated with this building. The best preservation of archaeological deposits is within the structure, which was slightly sunken. Here, a deposit of turf collapse containing dark grey tephra lenses, and thought to be associated with the collapse of the western wall of Structure 3 (which was also the eastern wall of Structure 1) was excavated in 2000 (context 590) and 2001 (context 728).

The most distinctive turf collapse layer associated with Structure 3 was below context 590/728. This was a firm, plastic, highly organic (peaty) turf, which did not contain any tephra layers, but was red in lenses where iron oxides had accumulated and cream-coloured in lenses where iron had been leached (context 625/682). This very distinctive turf must have been cut from a wet, boggy area. It capped the stone pavement in the centre of the building (624), and is interpreted as roof collapse. This context is now believed to have been contemporary with identical turf layers that capped the floors of Structures 1 and 2 (contexts 556 and 577), which have also been attributed to roof collapse. Although it could have been possible for peaty turf to be selected as roofing material at different periods in the site's history, it now seems more likely that the roofs of Structures 1, 2, and 3 were constructed at the same time with the same building material.

Phase V: Occupation of Structures 1, 2, 3 and 5 in the late 11th and 12th centuries

Structure 1

Structure 1 has been described in detail in earlier interim reports. It was thought that the building had been fully excavated in 2001, but the excavation in 2002 clarified the phasing of hearth 796, and showed that it belonged to Structure 1 as well. This rectangular hearth, which was situated immediately below hearth 669 was originally thought to be associated with the earlier house, Structure 4. However, the excavation of hearth 796 showed that the cut for this feature truncated earlier phases of occupation deposits and turf collapse. Hearth 796 therefore belonged to Structure 1, and was simply the first of two phases of hearth construction (see Figure 1).

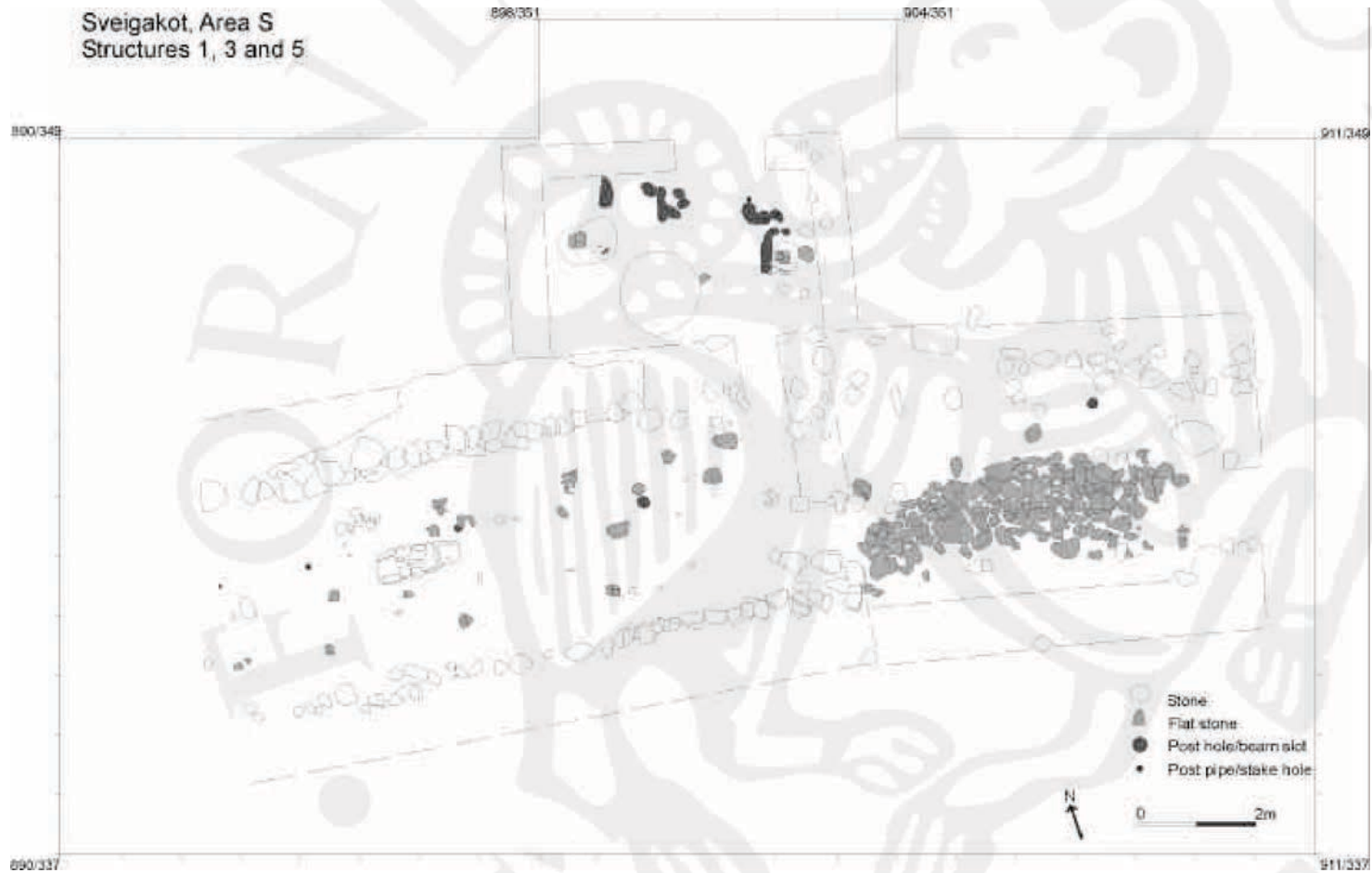


Figure 1. Sveigakot Area S, Phase V, showing Structures 1, 2, 3 and 5.

The construction of hearth 796 first involved the digging of a rectangular, vertical-sided pit (cut 804), which measured c. 140 x 60 cm, and was c. 25 cm deep. The hearth was lined with upright basalt slabs and included a partially lined ember pit on its eastern end. The upright stones were packed in place with sediment that appeared to consist of a mixture of the natural yellow subsoil and the black floor deposit that had been truncated by the pit (context 940). The hearth was filled with light grey wood ash, abundant charcoal, and calcined bones (context 797), which had been left *in situ* when hearth 669 was built on top of hearth 796. The question of why it was necessary or desirable to alter the original shape of the hearth is an interesting one. Christian Keller (pers. comm.) suggests that this structural alteration might have been related to a change in the size of the wood available for fuel, with a V-sectioned hearth more appropriate for thinner timbers.

Structure 2

An occupation deposit and layer of turf collapse associated with a building north of Structure 1 were excavated on the eroded western edge of the site in 2000 and 2001. These have already been described in the earlier interim reports.

Structure 3

Structure 3 abuts the eastern end of Structure 1. Because most of Structure 1 was excavated in 2000, while Structure 3 was not fully exposed until 2001, the occupation deposits within these two buildings were excavated out of phase. In the 2001 interim report, the occupation of Structure 3 was attributed to the earlier Phase II, but a re-examination of context plans and photographs from the two earlier field seasons, and further work in 2002, has shown that Structures 1 and 3 were in fact contemporary. There is a doorway between the two buildings. The floor of Structure 1 (context 559) tongued out towards this entrance, and the stone pavement in Structure 3 (context 624) ran from this entrance, across the central east-west axis of the building. It is likely that the pavement reached another door on the eastern side of Structure 3, but the loss of the eastern wall to wind erosion makes it difficult to confirm this.

The impressive stone pavement in Structure 3, which was about 1.5 m wide and just under 6 m long, is by far its most distinguishing characteristic, and there are few other features or deposits within the building that can illuminate its function (see Milek 2002: Figure 3). Little is left of the northern wall of Structure 3 except for a disturbed line of stones, and its eastern and southern walls have been completely lost to wind erosion. Luckily, the internal dimensions of the structure are clear due to the fact that it was slightly sunken and the fact that the floor area had been cleared of stones.



Figure 2. Structure 5, facing south, showing floor 854. The location of the hearth can be seen on the right (west) side of the building, but the cooking pit on the east side of the building is still covered by the black floor deposit. Floor 854 had extended over the barrel pit in the south part of the building, but was removed in error during the 2000 field season. Note that the area within the structure is clear of stones.

Internally, Structure 3 had measured approximately 4.5 x 7.5 m, with a strip of floor space about 1.5 m wide on the north and south sides of the stone pavement.

Better preserved buildings with a central stone pavement have been found on other Viking Age sites in Iceland, such as Þórarinsstaðir (Hrumannafréttur), Lundur (Borgarfjarðarsýsla), Gröf (Öræfi), Hvítárholt (Árnessýsla), Sámsstaðir (Þjórsárdalur), and Herjólfsdalur (Vestmanneyjar). Such buildings have been interpreted as cattle byres based on the additional evidence of preserved stall divisions. Possible stall divisions in Sveigakot Structure 3 may be suggested by the locations of flat stones on either side of the pavement, but this interpretation remains difficult to confirm. Nevertheless, the most plausible interpretation of Structure 3 is that it was a cattle byre; if so, it could have housed six to eight animals.

One of the most puzzling characteristics of Structure 3 is that it has proven difficult to identify a floor layer associated with the stone pavement. In the 2001 interim report, it was suggested that the black, charcoal-rich deposit (context 676/847) beginning to be uncovered in the north and east parts of Structure 3 could be a floor layer contemporary with the pavement, and it was hoped that the

excavation and chemical analysis of this layer would contribute to an understanding of the building's function. However, excavations in 2002 revealed that this black floor deposit actually predated the stone pavement, and was associated with an earlier, domestic phase of the building (see the discussion on Structure 6, below).

The main layer between the peaty turf roof collapse (context 625/682; see Phase VI) and the earlier black floor deposit was context 679, a very firm, dark brown silt, with lenses of grey tephra and oxidised iron. Since this layer was principally composed of turf fragments and soil, it was originally interpreted as a layer of turf debris associated with the collapse of Structure 3 (Milek 2002: 17). However, this interpretation has been reconsidered in light of the fact that there are no other candidates for a floor layer, and the fact that context 679 had surrounded the stone pavement and lipped up over the edges of it, and was therefore located precisely where one would expect a floor deposit to be. There are a couple of other unusual characteristics about context 679, most notably the quantity of large iron nodules it contained. Lenses of oxidised iron containing silt-sized and sand-sized iron nodules are common in turf building materials taken from wet areas. However, context 679 had contained extremely large, gravel-sized iron nodules, which were so unusual that they were hand collected during excavation (2001 sample 35). Iron nodules of this size, which form under repeated cycles of wetting and drying, have not been observed in any other context at Sveigakot, which suggests that context 679 was subjected to exceptional environmental conditions. The occurrence of wetting and drying cycles in Structure 3 prior to the collapse of the roof (context 682) supports the cattle byre interpretation. Although it may initially seem surprising that the floor of the putative cattle byre was composed of turf rather than straw, the practice of using turf as bedding material is not out of place in the Norse North Atlantic, and such bedding was frequently used to manure the infield (Simpson 1997).

Below context 679 and above the black floor deposit belonging to the earlier phase of the building (Structure 6, context 847) were a number of small patches of mixed turf debris, soil and decomposed organic matter, often containing charcoal fragments (contexts 879, 893, 905, 906, 910, 913, 914, 939, 941). These belong to the patchy floor deposit associated with the occupation of the putative byre. In addition, a layer of decomposed organic matter, likely to be decomposed hay or straw, was excavated east of the pavement (context 892). This layer, in addition to many of the small turf patches and the main floor deposit, 679, were sampled for soil chemistry. It is hoped that an evaluation of the phosphate levels in these layers, in comparison to other floor sediments and natural soils at Sveigakot, will provide additional evidence that Structure 3 was a byre.¹

Structure 5

In 2002, Structure 5 was fully excavated, and the phasing of the building was clarified. Unfortunately, the stratigraphic relationship between Structures 1 and 5 remains very poor: the occupation deposits

within the buildings do not overlap, and severe wind erosion around Structure 5 removed not only the historic soils (i.e. those above the *Landnám* tephra sequence) north and east of the building, but also all evidence of turf walls. The relationship between Structure 5 and the rest of the building complex has therefore had to be interpreted on the basis of somewhat more spurious evidence, such as internal features and occupation deposits that indicate the presence of connecting doorways. Luckily, a series of good radiocarbon dates on domestic animal bone from the upper floor deposits Structure 1 and the midden capping the floor of Structure 5 supports the interpretation that the two buildings were contemporary².

Structure 5 went through several changes in function and internal organisation, and was finally used as a domestic rubbish dump (described in Milek 2001: 57-58). In the 2001 interim report, it was suggested that the later midden phase was contemporary with Structure 1, but that the earlier phases of Structure 5 were likely to be contemporary with Structure 4, the house below Structure 1 (see Phase II, below). However, the exposure of Structure 4 in 2002 revealed no connection between this earlier building and Structure 5. On the other hand, the connection between Structures 1 and 5 had been clearly indicated by the main floor deposit in Structure 1 (context 559), which had tongued out towards a doorway between the two buildings. Structure 5 therefore appears to have been built as an addition to Structure 1, and its entire period of use may now be attributed to Phase V. This view is supported by the fact that there were no turf collapse deposits, aeolian accumulations, or any other evidence for a period of abandonment between the floor deposits and the midden deposits in Structure 5 that can parallel the clear abandonment phase between Structures 1 and 4.

Although all evidence for turf walls has been eroded away, and many stones have recently been removed from this area (as discussed under Phase VII), a disturbed line of stones on the east side of Structure 5 suggests that this wall, at least, had a stone component (see Figure 1). The interior of Structure 5, like all of the other buildings so far excavated at Sveigakot, had been cleared of stones, but in its first phase of use the turf was not removed from the ground surface. The roof of Structure 5 was supported by posts set on post pads and in shallow post holes (contexts 977, 978, 981, 945, 993, 997, 1000, 1014, 1017, 1019, 1025). The depths of these post holes, which reached a maximum of 22 cm, had clearly been limited by the stoniness and compaction of the subsoil, and several post holes bottomed on large stones. The posts were not very large, most having a diameter within the range of 20-30 cm. During the life of Structure 5, the posts were reset several times, creating clusters of close and/or overlapping post holes. Up to three overlapping post holes were found in each cluster, and there was a cluster of seven separate post holes close to the middle of the back wall. In addition, there were dozens of small stake holes scattered across the floor in the northern half of the building (e.g. context 976). These formed no recognisable pattern and it is not possible to determine their original function.

Structure 5 was first used as a pantry, or *búr*. A large, circular, flat-bottomed barrel pit (cut 606) was dug into the natural ground surface and lined with coarse alluvial sand (context 589). During the use of the barrel, a white organic residue (context 602) seeped out of the bottom and created a

narrow ring (2-5 cm wide) in the sand. Later, the function of Structure 5 changed. The barrel was removed and the barrel pit went out of use, though the grey sand in the barrel pit was left *in situ*.

Structure 5 was then used as a kitchen, and during this phase the types and locations of the fire installations changed several times. The floor of the northern half of the building was deturfed, a process that stripped off the greenish-grey tephra thought to date to c. 950 AD from the northern edge of the barrel pit. On the eastern side of the building, a narrow, oval cut with a V-shaped section (cut 963) was dug, apparently to hold a stone setting for one side of a hearth. This hearth was later dismantled, the stones were removed, and cut 963 was filled with mixed upcast and occupation debris (fill 958) when the earlier hearth was replaced by a cooking pit (954) in the same location. This small, well-made cooking pit was oval in plan (36 x 48 cm), with nearly vertical sides and a bowl-shaped base (15 cm deep). Its sides and base were lined with flat lava stones (context 956), which were packed into place with a very mixed brown and dark greyish brown sediment (context 957). There were two distinct fills within the pit: a lower fill consisting of grey wood ash, abundant charcoal and calcined bone fragments (context 951), and a mixed upper fill containing lenses of black and grey ash, dark brown silt, and coarse alluvial sand (context 950).

Eventually the cooking pit in Structure 5 went out of use, and a hearth or oven was constructed on the west side of the building in a shallow, oval cut (1007). The base of this hearth/oven was lined with two flat lava stones surrounded by fist-sized cobbles (context 1009). The feature probably had upright lava stones on three sides as well (in the manner of the ovens in the Area T pit house), for large, soot-stained flat lava stones were found in the midden fill immediately above this feature. The base of the hearth/oven was filled with grey wood ash and charcoal, which spread out into the interior of Structure 5 and had a diffuse boundary with the laminated floor deposit (context 854; see Figure 2). This floor deposit, which capped the earlier cooking pit and barrel pit, consisted of numerous, inseparable lenses of greyish brown sand and black sandy silt, but was not particularly compact. This is one reason why, when the portion capping the southern part of the barrel pit was excavated in 2000, it was assumed to be the lowermost layer of the midden deposit that had infilled the building after its abandonment. Even though its laminated bedding structure was observed (and worried about) at the time, it was not possible to identify the layer as a floor deposit until the excavation area was extended and the entire floor layer and the other features associated with the post-barrel pit phase of the building were exposed. Micromorphology samples were taken from a small baulk that ran from the barrel pit to the north end of the building, and it is hoped that the analysis of these samples will further elucidate the various functions of Structure 5 and how they changed over time.

Phase IV: Use of the domestic structure between major occupation phases

Between the major occupation phases represented by Structures 1 and 4, a number of small occupation deposits accumulated, which indicate that the building – or its ruin – was occasionally used for some type of domestic activity. Most of the deposits attributed to this intervening phase, when the ruins may have been used as a temporary shelter, or a shieling, were excavated in 2001 (see Milek 2002: 15-16). During the 2002 field season, the last remaining deposits associated with this phase were excavated on the west end of the building. These consisted of a small charcoal dump (context 938) and ashy deposits containing a few fragments of charcoal and bone (contexts 839 and 936). These lay on top of Structure 4 occupation deposits and turf collapse debris belonging to earlier phases.

Phase III: Abandonment and collapse of Structure 4

The uppermost layers of turf debris from the collapse of Structure 4 were excavated in 2001 (see Milek 2002: 16), and during the 2002 field season, the excavation of this phase was completed. Due to concern about the potential difficulty of distinguishing the base of the southern turf wall of Structure 4, layers of turf debris were not lumped together but defined and peeled off one by one, a strategy that proved to be reliable and effective. The turf layers varied in their colours and ‘cleanliness’, with many containing small amounts of charcoal, degraded wood fragments, patches of decomposed organic matter, and/or bone fragments (e.g. contexts 875, 878, 902, 912, 932, 942, 946, 947, 952, 955, 959, 962, 983, 987, 990, 991). Many of these turf layers, as well as the ‘cleaner’ ones, which were free of anthropogenic inclusions (contexts 643, 953) contained dark reddish brown lenses of oxidised iron and lenses of dark grey or greenish-grey tephra.

The most distinctive layer of turf collapse was context 648, an extensive layer dominated by red oxidised iron and black charred organic matter. When the south edge of context 648 was partially exposed in 2001, the abundance of the charred component led to it being incorrectly described as a ‘blackened occupation surface’ in the 2001 interim report (Milek 2002: 18). However, when it was excavated in 2002, it became clear that the charred organic matter within this sediment did not form a surface, but was intimately mixed within the layer in the form small, irregular, intertwining lenses (many not horizontal), in the same way that tephra and organic matter is frequently lensed within turf collapse. In addition, there were no wood charcoal fragments, bone fragments, or any other type of anthropogenic inclusions within context 648, negative evidence that supports its interpretation as turf collapse rather than an occupation surface. The charred component was silt-sized, and did not include any white or grey ash. It must therefore have derived from the charring of the grass component of the turf under very low temperatures and/or reducing conditions. Context 648 may best be interpreted as

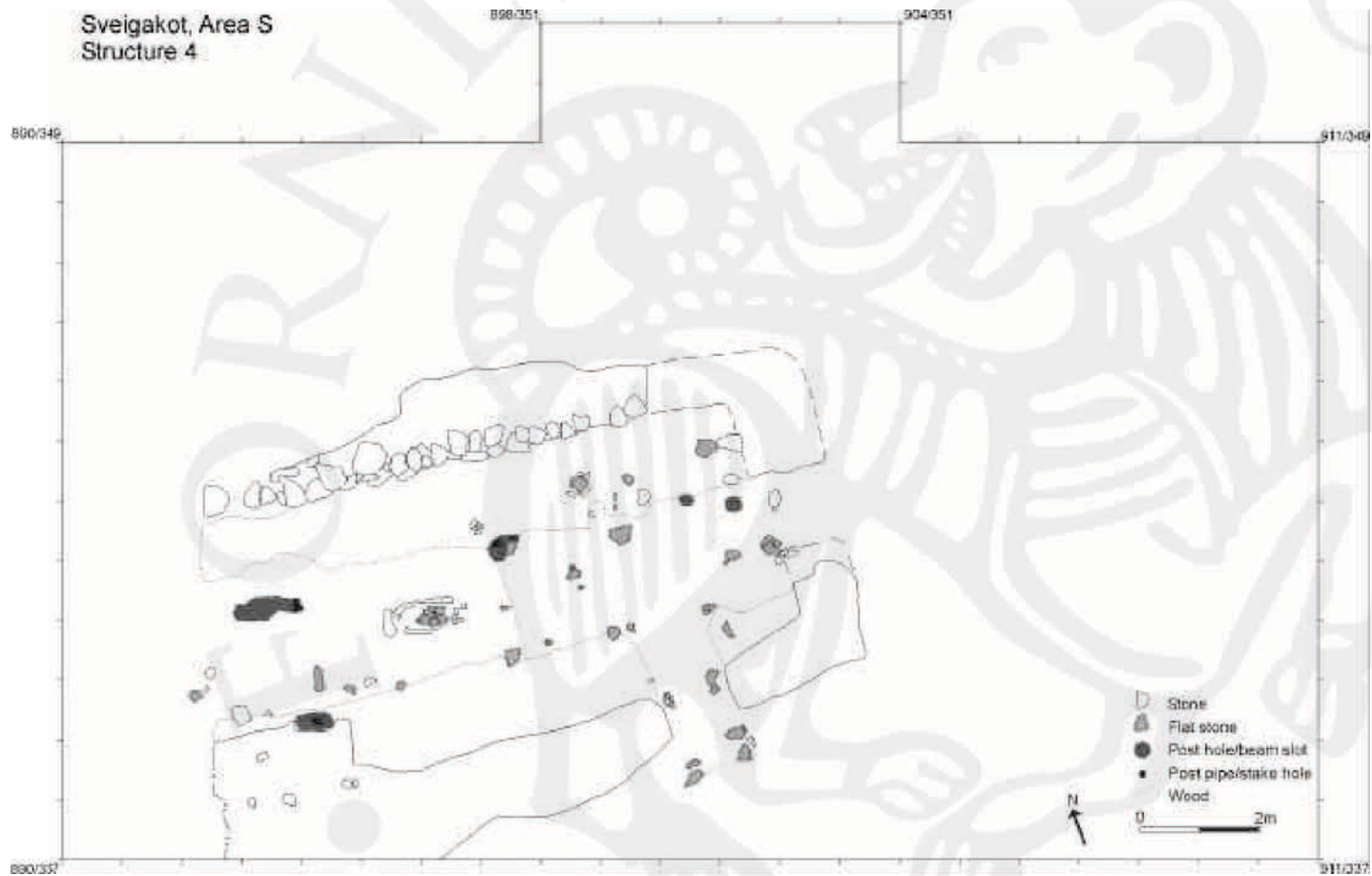


Figure 3. Sveigakot Area S, Phase II, showing Structure 4.

turf roof collapse, which had experienced charring during the occupation of Structure 4, when soot and cinder drifted up into the roof.

A couple of unusual turf deposits in the south east corner of Structure 4 are also tentatively assigned to this phase. Below the sandy, mixed turf collapse layer 817, which was excavated in 2001, was a small deposit of very dark greyish brown and dark yellowish brown sandy turf (context 984). Below this was another small deposit containing lenses of yellowish brown turf and charcoal-stained silt (context 1008). Both of these unusual turf layers infilled a small depression in the south east corner of Structure 4, and their removal revealed a layer of pinkish-brown organic matter at the bottom of the depression. It seems likely that there is a negative feature in the south east corner of Structure 4, but the origins of this depression and its relationship with the floor of Structure 4 are issues that are not yet fully understood, and will have to be clarified in 2003.

Within the door in the south wall of Structure 4, aeolian sand accumulated in the wind-trap created by the open doorway (context 633). This layer of homogenous fine sand contained some degraded wood fragments, a common inclusion within and outside of the doorway that is likely to have derived from the collapse of wooden structural elements. Context 633 had a diffuse boundary with an extensive layer of mixed aeolian silt and turf collapse south of Structure 4 (context 686), and it is likely that the two layers accumulated at the same time. The fact that context 686 also contains some occupation debris, such as bone fragments, iron objects, a fire-cracked stone, and 38 pieces of iron slag (more than any other context so far excavated at Sveigakot) illustrates again that some activity continued on the site while the south wall of Structure 4 was collapsing (see Phase IV).

Phase II: Occupation of Structure 4 in the late 10th and 11th centuries

Structure 4, the house below Structure 1, was fully exposed during the 2002 field season, but its internal occupation deposits have yet to be excavated (see Figures 3 and 4). Like Structure 1, the long axis of Structure 4 was oriented east-west, and its western end wall had been eroded away by the flood waters of the Kráká river. The western edge of the main floor deposit in Structure 4 (context 561) had also been truncated by erosion. If the hearth had been centred, it would mean that 3 m have been lost from the western end of the building. Therefore, although Structure 4 survives to a length of 12 m, it can be assumed that 1-3 m have been lost from its western end. Structures 1 and 4 shared the same north wall (wall 607), but the south long wall of Structure 4 was about 1.5 m further south (wall 1015), making the earlier house 4.8 m wide. There is an entrance in the south wall about 1.6 m from the eastern end wall.

When Structure 4 was built, the ground was deturfed, and the area was cleared of stones, a procedure which stripped off the greenish-grey tephra thought to date to c. 950 AD. This tephra layer,



Figure 4. Structure 4, facing west.

and a silt accumulation above it, were preserved under the stones of the north long wall (607), giving the structure its *terminus post quem*. A sunken floor area was then made by digging deeper in a 2 m-wide strip along the central axis of the building. This process removed the black and dark grey tephra horizons of the *Landnám* tephra sequence and had the effect of leaving slightly raised platforms or benches (*set*) along the north and south edges of the building, each 1.4 m wide. The *Landnám* tephra sequence can be seen on the inner edges of these benches, and in a post hole cut into the southern bench (cut 975).

The south wall of Structure 4 (wall 1015) survived to a maximum height of only 20 cm, and is represented by little more than its base. This was composed primarily of compact turf containing greenish-grey tephra, but this was not organised enough, or preserved to a great enough height, to distinguish coursing or the type of turf construction that had been used. Part of the base of wall 1015 was also composed of upcast: mixed yellowish brown subsoil and black tephra, probably from the digging out of the central floor area. The entire house sloped down towards the west, and at the western end of wall 1015, the turf that had been used in the wall construction had also been placed on the bench, presumably to help level it. At this western end, where the turf in the wall and the bench are indistinguishable, the boundary between them is demarcated by stones (see Figure 3).

The floor deposits were confined to the central floor area between the benches. The benches themselves were remarkably clean, which suggests that they had been covered with an organic



Figure 5. The square stone setting within the southern doorway of Structure 4 (context 1005).

material such as wooden planks or sheepskins. A thin layer of very dark greyish brown sandy silt and pinkish brown decomposed organic matter covered the southern bench and tongued out over the floor just in front of the entrance (context 960). Since it covers the main floor deposit, this organic layer must have been deposited at a very late stage in the history of Structure 4, perhaps when the house was being abandoned and the bench coverings removed. Along the edges of the benches, and occasionally in the benches, were rows of post holes (contexts 784, 975, 1003, 1012) and post pads. The house appears to have been of three-aisled construction, with two rows of roof-supporting posts along the inner edges of the benches. Other post settings that were placed in the north bench may have provided additional roof support, or may have supported bench partitions or internal dividing walls. Two rows of post pads along the edges of the southern doorway indicate that the roof over the entrance passage was supported by additional posts. A small, square stone setting, constructed of 3 upright lava stones and two horizontal lava stones, was placed on the western side of entrance (structural element 1005; see Figure 5). This unusual feature may have been related to the operation of the door, for example as the setting for a door pivot or a door catch.

Structure 4 contained a hearth in the centre of its sunken floor. This was a well constructed hearth, 1 m long by 0.6 m wide, with a base lined with flat lava stones, and slightly bowed sides lined



Figure 6. The central hearth of Structure 4, and cut of the later hearth (796), that had truncated the earlier floor deposits.

with lava and basalt stones (see Figure 6). A black, compacted floor deposit (context 561), which extended from the edge of the north bench to the edge of the south bench, and tongued out through the southern doorway, lipped up over the stones of the hearth. 1 m east of the hearth, stretching from a post hole in the north bench to a post pad in the south bench, was a thin, V-sectioned linear depression in the floor which contained wood at the bottom of it. This feature is thought to represent an internal partition wall. Thin linear features containing decomposed wood were also found along the edge of the south bench, which suggests that the front of the benches had been lined with wood. Two shallow, elongated cuts with sloping sides and flat bases, and stake holes at the bottom, were found close to the edge of the north bench. One of these was more rectangular in plan (cut 968) and the other more oval (cut 971), but both could have held flat beams. The function of these features is not yet clear.

Several small occupation deposits that capped the main floor layer (context 561) were excavated in 2002. One of these was a mixed, very dark brown sediment in the west end of Structure 4, which contained charcoal, burnt bones and decomposed organic matter (context 961). A layer of very dark greyish brown silt that lipped up against the north bench contained an abundance of decomposed organic matter, some charcoal and bone, and unidentified iron objects (context 903). Within the southern entrance was a multi-laminated, very dark brown, sandy occupation deposit

(context 989) that tongued inwards over floor 561. This contained lenses of charcoal-stained silt, as well as charcoal flecks, and a small amount of decomposed wood and organic matter (c. 1%), most of which was concentrated outside of the door. Just within the doorway, in the south east corner of Structure 4, was a related layer containing flecks and lenses of pinkish brown decomposed organic matter, lenses of very dark brown silt, and a charcoal lens (context 982). Contexts 989 and 982 shared a concentration of water-worn pebbles just within the eastern side of the doorway, indicating that they were contemporary. Since it is not possible for these pebbles to have been deposited naturally, they must have been deposited by the occupants of the house, though their original function is difficult to determine.

Phase I: Pre-structural anthropogenic deposits

This phase of Area S was described in the 2001 interim report (Milek 2002: 20-21). No new information about this phase was acquired during the 2002 field season.

Structure 6: A new building

At the end of the 2002 field season, an earlier building phase was discovered below Structure 3, the putative byre. The black, charcoal-rich floor deposit, context 847, was originally thought to encircle and lip up over the stone pavement in Structure 3, and was therefore assumed to be associated with it (Milek 2002: 18). However, when context 847 began to be excavated, it soon became clear that the layer continued underneath the paving stones, which were pressed down into it. On the south side of the pavement, where a patch of floor 847 had been slightly more grey and ashy, it turned out to be capping the ashy fill (context 1021) of a small hearth that was partially underneath the stones of the pavement (hearth 1022). This hearth, and the black floor deposit 847, are therefore associated with an earlier, domestic phase of a building that was later converted into a byre. Time did not permit the removal of the stone pavement during the 2002 field season, so this earlier building, Structure 6, has yet to be fully exposed. Only when the last remains of Structure 3 have been excavated, and the relationship between Structure 6 and the rest of the settlement complex is clarified, will it be possible to know if Structure 6 should be placed in Phase II (with Structure 4), or in Phase V (with Structure 1).

Conclusion

During the 2002 field season, the total number of structures in the Area S building complex was brought up to six. Other than Structure 6, which has yet to be fully exposed, the relationships between these structures were clarified, and it is now possible to trace the changing sequence of buildings and

building functions from the late 10th through the 12th centuries. Many ideas about this building sequence, and what it means for the interpretation of the economic status of the farm, have had to be revised on the basis of this new information.

The earliest house, Structure 4, was constructed in the second half of the 10th century. With its slightly bowed long walls, an entrance on one side of the southern long wall, a central hearth, three-aisle construction, and low side benches, it was a *skáli* of traditional Viking Age form. Having internal dimensions of c. 5 x 12-15 m, it rested comfortably within the average size for Viking Age rural houses in the north Atlantic region. For some reason the building fell out of use at some point in the 11th century. Aeolian sands accumulated within the entrance, and the walls partially collapsed – particularly the southern long wall. Sporadic occupation of the building, or its ruin, took place during this period of abandonment, and it is not unlikely that the site was used as a temporary shelter or a shieling at this time.

When Area S came to be intensively occupied again in the late 11th century, the north wall of Structure 4 was incorporated into the new house, Structure 1, but otherwise the new building was constructed following a very different design. The new southern wall was built on what had been the inner edge of the south bench of Structure 4, reducing the width of the building to just under 4 m. Its main entrance was moved – presumably to the western end of the south long wall, where it has been lost to erosion. A new hearth was built approximately 1 m north of the earlier one, which reflected the new central axis of the narrower building. At a later point in the life of Structure 1, this hearth was remodelled, and its original rectangular section was replaced with a V-shaped one. Structure 1 did not contain raised side benches of earthen materials, but the hour-glass plan of the main floor deposit suggests that wooden benches had been placed in a central location along each of the long walls.

Structure 1 was the main dwelling structure in this 11th to 12th century building complex, and probably functioned in a similar way as the earlier *skáli* (i.e. a room for sleeping, cooking, eating, and sitting). However, at least one smaller, more specialised building was attached to this main building, giving it a form that may have resembled the 12th-century building complexes that have been excavated in the Þjórsárdalur, in south Iceland. Structure 5, which first functioned as a pantry and later as a kitchen, abutted the north side of Structure 1, and was linked to the main house by a door on the eastern end of the northern long wall. Structure 2 is so close to the north side of Structure 1 that it could also have been attached, but the evidence for this has been eroded away by the floodwaters of the Kráká River. Structure 3, a byre with a central stone pavement, was attached to the eastern end of the main house.

The final occupation phase of Sveigakot is therefore more complex than had previously been envisioned. Although the size of the *skáli* was reduced between the 10th century and the 11th/12th century occupation phases, at least one small domestic building with more specialised functions was added to the *skáli* during the later phase. Also, the function of this small building was altered constantly throughout its use, reflecting the flexibility and the changing needs of the household. The

change in the design of the dwelling house between the 10th and 11th centuries, hitherto attributed only to economic decline, could therefore be related to a number of other factors. The addition of the Structure 5 to Structure 1 (if indeed it was built later, rather than at the same time) could, for example, be interpreted as reflecting the later growth of a household that was originally quite small. An alternative perspective is that the spatial organisation of the later dwelling complex, in which Structure 5 was added and given more specialised functions, was intended to spatially separate certain household activities (e.g. dairy production and cooking). Such spatial differentiation within houses, also a trait of the 12th century houses of the so-called Þjórsárdalur type, could be interpreted as a sign of increased social differentiation among household members (Kent 1990). The remodelling of the hearth in Structure 1, and the frequent alterations made to Structure 5, could also be taken as an indication of a high rate of change in the household, and perhaps a certain level of instability. This view is supported by the micromorphological evidence from the floor of Structure 1: freeze-thaw soil structures have been observed in the middle of the floor deposit, which could have been produced by the abandonment of Structure 1 for one or more winters (Milek, forthcoming). How the apparent spatial differentiation and instability of the 11th to 12th century occupation phase compares to the earlier 10th century phase is an interesting issue that can only be addressed once Structures 4 and 6 have been fully excavated.

Notes

¹ Unfortunately, because it had appeared to be a layer of turf collapse and was not recognised as a floor deposit when it was excavated in 2001, context 679 was not bulk sampled on a 50 cm² grid, or sampled for micromorphological analysis.

² 2 sigma calibrated dates on domestic cattle and caprine bone from the upper floor layer of Structure 1 (context 558): AD 1020-1200 (Beta 154783), AD 1060-1270 (Beta 154784), AD 1020-1200 (Beta 154785); 2 sigma calibrated dates on domestic cattle bone from midden deposits capping the floor of Structure 5 (contexts 767 and 692): AD 1040-1290 (AA-52495; GU-9734), and AD 1020-1220 (AA-52496; GU-9735).

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Table 1. Area S excavated contexts

Context	Type	Description	Notes
633	Layer	Soft, very dark brown (10YR 2/2), homogenous sand, with rare flecks of pinkish brown organic matter and highly degraded wood fragments	Aeolian accumulation within the southern entrance of S4, up against turf wall [1015]; the boundary with [686] was diffuse, indicating that the two layers may have accumulated simultaneously
643	Layer	Firm and friable, very dark brown (10YR 2/2) with yellowish flecks (5YR 5/8), dark red oxidised iron and dark grey tephra; few charcoal flecks	Layer of turf collapse above charred turf [648]
648	Layer	Friable black (10YR 2/1) charred organic matter (not wood), very dark greyish brown (10YR 3/2) sandy silt, and dark brown (7.5 YR 3/3) silt, with lenses of oxidised iron	Charred turf collapse; perhaps charred in a roof fire; perhaps soot accumulation in the roof (fine particulate charcoal)
686	Layer	Soft to firm, friable, very dark brown very fine sandy silt; contains flecks of yellowish brown and pinkish brown decomposed organic matter, turf fragments with lenses of oxidised iron and greenish grey tephra, flecks of charcoal (c. 1%), degraded wood fragments (c. 1%); also contains some bone fragments, iron objects, a fire-cracked stone and 38 pieces of iron slag	Mixed aeolian silt, collapse debris (turf and wood), and some occupation debris, which may indicate that some activity was still taking place on the site while the south wall of S4 was collapsing
796	Structural	Rectangular setting of upright basalt stone slabs set into cut [804]	Earlier hearth of S1, below hearth [669]; includes a partially stone-lined ember-pit on its east end; pits and depressions on the west end of the hearth suggest that the hearth may have originally been longer, but that it was partially dismantled when the later hearth was built
797	Layer	Firm to soft light pinkish grey and brown (7.5YR 4/3) silty ash, with abundant charcoal (c. 30%), calcined bone (2-5%), lenses of brown silt, and 2 fire-cracked rocks	Ash within hearth [796]; judging from the colour and the abundance of charcoal, probably wood ash
804	Cut	Subrectangular cut, with vertical sides (c. 25 cm deep) and a fairly flat base (c. 140 x 60 cm)	Cut for hearth [796]
834	Layer	Compact friable, very dark greyish brown (10YR 3/2) sandy silt containing greenish grey tephra and oxidised iron	Small patch of turf
839	Layer	Compact friable, very dark greyish brown (10YR 3/2) and black (10YR 2/1) silt, with a few charcoal and bone fragments	Compact ashy layer
847	Layer	Firm, friable, black (10YR 2/1) sandy silt, with grey, ashy patches	Floor layer under S3 pavement [624]; not excavated in 2002
854	Layer	Firm, friable; fine, inseparable lenses of greyish brown sand and black sandy silt, above a thicker (3-5cm) layer of black sandy silt	Floor of S5
864	Layer	Firm, friable, mottled very dark brown (10YR 2/2) very fine sandy silt and brown (7.5YR 4/3) decomposed organic matter; contains a few charcoal flecks (<1%) and fragments of degraded wood (<1%)	Organic lens; possible occupation layer at the southern edge of the excavation area; not excavated in 2002

867	Layer	Yellowish turf containing black tephra, on southern edge of excavation	Possible turf wall or wall collapse; not excavated in 2002
868	Layer	Turf containing grey-green tephra, on the southern edge of S4 wall [1015]	Possible turf wall or wall collapse; not excavated in 2002
869	Layer	Grey sand	Aeolian sand below [867] and [868]; not excavated in 2002
870	Layer	Dark brown silt with pink-brown organic matter around the large boulder SE of S4	Organic deposit; not excavated in 2002
871	Layer	Very firm, light pinkish brown organic matter on S edge of the excavation, adjacent to [867]	Organic deposit; not excavated in 2002
875	Layer	Firm, friable, mottled dark brown (10YR 2/2) and very dark greyish brown (10YR 3/2) fine sand, containing reddish turf fragments and charcoal flecks (<1%)	Above cleaner turf collapse layer [643]; probably part of the same collapse phase
876	Layer	Friable, dark brown (10YR 2/2) fine sandy silt with charcoal staining	Charcoal-stained lens on the south edge of hearth cut [804], and apparently truncated by that cut
878	Layer	Firm, friable, mottled very dark grey (10YR 3/1), very dark greyish brown (10YR 3/2) and dark reddish brown (5YR 3/4) very fine sandy silt, containing charcoal flecks (<1%), bone (<1%), and degraded wood fragments (<1%)	Turf collapse between floors [561] and [599], with some occupation debris at the sandier bottom of the layer; the wood fragments may be structural, and the layer probably represents roof collapse
879	Layer	Very firm and friable very dark greyish brown (10YR 3/2) very fine sandy silt, with patches of pinkish-brown (7YR 4/3) decomposed organic matter (5-10%)	Organic-rich deposit east of pavement [624] in S3
880	Layer	Firm, friable, dark greyish brown sandy silt around stones on the E edge of S5	Above floor [854]; appears to be a thin accumulation of aeolian sand deposited prior to the turf collapse [814]
892	Layer	Firm, plastic, dark brown (7.5YR 3/4) organic silt (50-60%), and very dark greyish brown (10YR 3/2) sandy silt, with some charcoal flecks (<1%)	Organic deposit on the east end of pavement [624] in S3; possible hay layer
893	Layer	Firm, friable, very dark brown (10YR 2/2) silt (c. 50%), mottled with dark yellowish brown (10YR 4/4) very fine silty sand (10-20%), and very dark greyish brown (10YR 3/2) organic silt and oxidised iron (c. 30%); charcoal flecks (<10%)	Small deposit of turf collapse under the larger turf collapse layer [679] and attributed to the same phase
901	Layer	Soft, friable black (10YR 2/1) silty sand containing c. 50% wood charcoal, including some very large pieces	Small charcoal dump on the E edge of S5; on its SE edge, the layer was partially overlain by natural yellow silt of the subsoil, which had slumped down from the primary edge/cut of the building
902	Layer	Friable, very dark brown (10YR 2/2) and dark brown (10YR 3/2) sandy silt with charcoal flecks and some bone fragments	Layer of turf collapse above charred turf layer [648]
903	Layer	Compact, friable to plastic, very dark greyish brown (10YR 3/2) silt, with pinkish brown (7.5YR 3/3) decomposed organic matter (20-30%), and occasional flecks of strong brown (7.5YR 5/8); contains some charcoal (<1%), bone fragments, and unidentified iron objects	Occupation deposit within S4
904	Layer	Firm, friable black (10YR 2/1) sandy silt and	Charcoal and ash dump in S5

		grey to dark grey silty ash; contains abundant charcoal (c. 50%) and small fragments of burnt bone	
905	Layer	Firm, friable, very dark yellowish brown (10YR 3/4) mottled with very dark brown (10YR 2/2) and oxidised iron (c. 5%)	Small turf deposit in S3
906	Layer	Firm, friable, mottled very dark greyish brown (10YR 3/2) and dark brown (10YR 3/3) sandy silt, with oxidised iron (c. 5%), and some charcoal fragments	Small turf deposit in S3
909	Layer	Firm, friable, black (10YR 2/1) and dark brown (10YR 3/3) sandy silt	Small deposit of charred turf in S3
910	Layer	Firm, friable, dark brown (10YR 3/3) sandy silt and decomposed organic matter (<30%) with charcoal flecks (<1%) and iron oxide (<1%)	Small deposit of turf and organic matter in S3
911	Layer	Firm, friable, dark brown (10YR 3/3) silty sand	Aeolian sand deposit above the floor in S5
912	Layer	Firm, friable, very mixed deposit, consisting mainly of very dark brown (10YR 2/2) sandy silt, greenish grey tephra (c. 5%), pinkish-brown decomposed organic matter (<1%), and charcoal flecks (<1%)	Turf deposit above the floor [561], and associated with the collapse of S4
913	Layer	Firm, friable, very dark greyish brown (10YR 3/2) and dark yellowish brown (10YR 3/6) sandy silt	Small turf deposit in S3
914	Layer	Firm, friable, dark brown (10YR 3/3) silty sand with greyish green tephra and oxidised iron; contains some charcoal (<1%)	Small turf deposit in S3
929	Layer	Firm, friable, mottled deposit, consisting mainly of very dark greyish brown (10YR 3/2) organic sandy silt, with flecks of oxidised iron and light yellow silt	Small dump on top of the main floor deposit in S5
930	Cut	Oval, shallow (10 cm deep) cut/depression with sloping sides and a nearly flat base; contains 5 small stones	Shallow post setting in S4
932	Layer	Firm, friable, very dark greyish brown (10YR 3/2) mottled with dark brown (10YR 3/3) and very dark brown (10YR 2/2) silty sand with some charcoal flecks (<1%)	Mixed turf and soil on top of floor [561] in S4
936	Layer	Friable, very dark brown (10YR 2/2), dark greyish brown (10YR 3/2) and dark reddish brown (5YR 3/4) sandy silt; contains 2 pieces of bone	Reddish sandy deposit between ash deposit [839] and charcoal deposit [938] on the W of S1/4; these appear to have been deposited between the main occupation sequences
937	Fill	Soft, friable, very dark brown (10YR 2/2) homogenous silt; a large stone was set on the sloping N edge of the cut	Fill at the bottom of the post hole [945] in S5
938	Layer	Friable, black (10YR 2/1) and very dark brown (10YR 2/2) silt containing abundant charcoal (60-70%) and bone fragments	Small charcoal dump on the W end of S1/4
939	Layer	Firm, friable, dark brown (10YR 3/3) mottled with dark yellowish brown (10YR 3/4) silty sand, oxidised iron (c. 5%) and charcoal flecks (c. 1%)	Small layer of turf, which partially overlapped paving stones [624]

940	Fill	Firm, friable; very mixed sediment, containing black (10YR 2/1) and very dark grey (10YR 3/1), and dark yellowish brown (10YR 3/4) silt; contains abundant charcoal (c. 30%)	Packing around the upright stone slabs of hearth [796], infilling cut [804]; appears to be composed of a mixture of the S4 floor deposit [561], and the natural yellow subsoil, both of which had been truncated in the digging of cut [804]
941	Layer	Firm, friable, very dark greyish brown (10YR 3/2) sandy silt with c. 5% patches of black (10YR 2/1) and oxidised iron (c. 7%); contains some charcoal (c. 2%) and small pieces of bone	Small layer of turf in S3
942	Layer	Firm, friable, mixed very dark brown (10YR 2/2) and very dark greyish brown (10YR 3/2) very fine sandy silt, with abundant flecks of pinkish brown (7.5YR 4/4) decomposed organic matter (c. 30%); contains some charcoal (<2%)	Small turf layer from the collapse of S4, above floor layer [561]
945	Cut	Rectangular cut with rounded corners, a flat base, vertical E and W edges, and sloping N and S edges	Post setting in S5, around which floor [854] had accumulated; the bottom of the cut was filled with [937], and the remainder with midden material, indicating that the post had been removed when S5 was abandoned
946	Layer	Firm, friable, very dark brown (10YR 2/2) and very dark greyish brown (10YR 3/2) silt; contains degraded wood fragments, charcoal, bone, iron slag, an iron nail, an iron rivet, and a spindle-whorl	Thick deposit of turf and soil above floor [561] in S4; contains some occupation debris, which may perhaps be attributed to the sporadic occupation of the ruin between the main structural phases of S4 and S1; the northern edge of this deposit was truncated by the cut for the hearths in S1
947	Layer	Firm, friable, dark brown (10YR 3/3) sandy silt with some charcoal pieces (<1%), oxidised iron (<1%), greenish grey tephra, and a small patch of pinkish brown organic matter (<1%)	Small layer of turf collapse in the E end of S4, above floor [561]
950	Fill	Mixed lenses of black/grey sandy silt, dark brown greyish sandy silt; also contains a patch of subrounded medium to very coarse sand	The upper fill of cooking pit [954]
951	Fill	Grey ash containing pieces of charcoal (c. 10%) and bone	Lower fill of cooking pit [954]
952	Layer	Firm, friable, dark yellowish brown (10YR 3/4) silty sand containing oxidised iron (c. 5%) and some organic matter (<1%)	Small turf deposit above the S bench of S4
953	Layer	Firm, friable, dark yellowish brown (10YR 3/4) silty sand mottled with black tephra and oxidised iron (c. 2%)	Small turf deposit above the S bench of S4
954	Cut	Oval cut with nearly vertical, slightly undercut/slumped sides, and a bowl-shaped base	Cut of cooking pit
955	Layer	Firm, friable, dark yellowish brown (10YR 3/4) mottled with very dark brown (10YR 2/2) sandy silt; contains oxidised iron (c. 2%), black tephra (c. 7%), greenish grey tephra (c. 3%), decomposed organic matter (c. 2%), degraded wood fragments (c. 1%), and charcoal pieces (<1%)	Small deposit of turf collapse within the S doorway of S4
956	Structural	Stone lining of cooking pit, consisting of 4 flat lava stones arranged around a natural rock at the base of the cut, one large flat lava stone on the south side of the cut, and several smaller stones	Stone lining of cooking pit [954]

on the north side of the cut

957	Fill	Firm, friable, very mixed brown and very dark greyish brown sandy silt, with some charcoal pieces (c. 1%)	Packing around the stones lining cooking pit [954]
958	Layer	Firm, friable, very mixed brown and dark greyish brown sandy silt, and tephra; contains some charcoal (c. 2%) and bone	Possibly upcast from the digging of cooking pit [954]
959	Layer	Firm, friable, dark brown (10YR 3/3) silty sand containing lenses of pinkish brown organic matter and some pieces of charcoal (<1%)	Small deposit of turf and organic matter within the S doorway of S4
960	Layer	Firm, friable, very dark greyish brown (10YR 3/2) sandy silt, with pinkish brown decomposed organic matter (c. 20%) and some oxidised iron (c. 5%)	Mixed layer of soil and decomposed organic matter that stretched over the S bench of S4, and covered floor [561] just in front of the S doorway
961	Layer	Friable, very dark brown (10YR 2/2) sandy silt containing some charcoal, burnt bones, and decomposed organic matter	Mixed occupation deposit in the W end of S4, just above floor [561]
962	Layer	Friable, dark brown (10YR 3/3) sandy silt, with c. 1% charcoal	Small deposit of turf above floor [561] in S4
963	Cut	Narrow, oval cut with sloping sides and a V-shaped base	Cut probably for the stone setting for one side of a hearth; stones were dismantled and removed, and the cut was infilled with upcast [958], which was created during the digging of cooking pit [954]
964	Layer	Friable, very dark greyish brown (0YR 3/2) sandy silt containing grey tephra and one iron nail	Small deposit of turf in S4, which can probably be lumped with [936]
965	Fill	Firm, friable, black (10YR 2/1) and dark brown (10YR 3/3) silt with some charcoal (<1%) and organic matter (<1%)	Fill of the narrow rectangular cut [968];
966	Fill	Friable, very dark brown (10YR 2/2) sandy silt containing some degraded wood fragments	Fill of small post hole [967], on the E end of the narrow rectangular cut [968]
967	Cut	Small rectangular cut with rounded corners, vertical sides, 2 rounded depressions at the base	Small post hole, which may have contained 2 stakes; filled with [966]; on E end of [968]
968	Cut	Shallow rectangular cut with rounded corners, sloping sides, and a flat base	Filled with [965]; seems to have held a flat beam associated with the stake(s) in [967]; feature could be associated with the edge of the N bench of S4
969	Fill	Firm, friable, very mixed fill, consisting of very dark greyish brown (10YR 3/2) mottled with dark yellowish brown (10YR 3/4) silty sand, and small patches of greenish grey and black tephra (c. 1%)	Fill of post hole [975] in the S bench of S4
970	Fill	Friable, very dark brown (10YR 2/2) sandy silt containing some charcoal (<1%) and burnt bone	Fill of shallow oval depression [971]
971	Cut	Shallow oval cut with sloping sides and a fairly flat base; more rounded base on the E end; 3 rounded depressions at the base	Filled with [970]; could have held a flat beam and/or stakes; feature could be associated with the edge of the N bench in S4
973	Fill	Firm, friable, mixed greyish brown and yellowish brown (subsoil) sandy silt; some charcoal (0.5%)	Fill of post hole [977] in S5
974	Fill	Firm, friable, very dark grey sandy silt; contained one piece of bone and a piece of unworked red	Fill of stake hole [976] in S5

		sandstone	
975	Cut	Oval cut with vertical sides on the N, S, and E, and a sloping side on the W; base is bowl-shaped, with a small shelf on the E end	Cut for post hole in the S bench of S4; filled with [969]
976	Cut	Small oval cut with nearly vertical sides and a rounded base	Cut for stake hole in S5, filled with [974]
977	Cut	Oval cut, with vertical sides and a fairly flat base; two natural, flat stones are protruding at the base	Post hole in S5, filled with [973]
978	Cut	Oval cut with 3 vertical sides and a sloping S side, and a rounded base	Post hole in S5, filled with [979]
979	Fill	Firm, friable, very mixed black, greyish brown and brown sandy silt; contains some charcoal (c. 1%)	Fill of post hole [978] in S5
980	Fill	Firm, friable, mixed greyish brown, brown and dark greyish brown sandy silt; some charcoal (c. 0.5%)	Fill of post hole [981] in S5
981	Cut	Oval cut with nearly vertical sides and a rounded base	Post hole in S5, filled with [980]
982	Layer	Firm, friable, very dark greyish brown (10YR 3/2) sandy silt with flecks and lenses of pinkish brown (7.5YR 4/4) decomposed organic matter, and lenses of very dark brown (10YR 2/2) silt; contains a charcoal lens (c. 5% of the layer) and a cluster of pebbles just within the doorway	Mixed soil and organic matter, very much like [960], deposited in the SE corner of S4, just within the doorway
983	Layer	Friable, mixed very dark brown (10YR 2/2), dark yellowish brown (10YR 3/4) and black (10YR2/1) sandy silt	Mixed/disturbed turf deposit next to post pad in the N part of S4
984	Layer	Firm, friable, mottled very dark greyish brown (10YR 3/2) and dark yellowish brown (10YR 3/4) silty fine sand; contains charcoal flecks (<1%)	Small deposit of what appears to be sandy turf, filling a depression in the SE corner of S4
985	Fill	Firm, friable, very dark brown (10YR 2/2) silty sand, containing some charcoal (c. 1%) and iron slag	Fill of post hole [992], south of the pavement in S3
986	Layer	Firm, friable, dark greyish brown sandy silt; contains some charcoal (c. 0.5%)	Small occupation deposit under the main floor layer [854] in S5
987	Layer	Firm, friable, dark brown (7.5YR 3/3), very dark brown (10YR 2/2), dark yellowish brown (10YR 4/4) and black (10YR 2/1) organic silt	Small, thin organic lens on the N edge of the cut west of the S1 hearth
988	Layer	Firm, friable, very mixed dark greyish brown, brown, black and grey sand and sandy silt; some charcoal (c. 5%), bone and burnt bone	Small layer of mixed upcast material in S5, which turned out to be a series of overlapping post hole fills (944, 996, 1001, 1013, 1024)
989	Layer	Firm, friable, very dark brown (10YR 2/2) very fine sandy silt with lenses of charcoal-stained silt (10YR 2/1); contains charcoal flecks (<1%), a few small turf fragments containing oxidised iron, degraded wood fragments and decomposed organic matter (<1%), an iron nail, a couple of pieces of slag, and some pebbles	Lensed, sandy occupation deposit in the S entrance of S4, and stretching inwards over floor [561]; most organic matter and wood inclusions were more highly concentrated outside of the door
990	Layer	Firm, friable, very mixed dark brown (7.5YR 3/4)	Small deposit of mixed turf on the N bench

		and 10YR 3/3) and strong brown (7.5YR 4/6) sandy silt	of S4; possibly a last remnant of S4 collapse debris
991	Layer	Firm, friable, very mixed dark brown (7.5YR 3/4 and 10YR 3/3) and strong brown (7.5YR 4/6) sandy silt	Small deposit of mixed turf on the N bench of S4; possibly a last remnant of S4 collapse debris
992	Cut	Round cut, with vertical sides and a sloping base caused by the presence of a large stone on one side	Cut of post hole in S3, filled with [985]
993	Cut	Oval cut, with vertical sides and a rounded base	Post hole in S5, filled with [994]
994	Fill	Firm, friable, mixed dark greyish brown, brown, greyish ash, and black tephra; contains some charcoal and burnt bone fragments	Fill of post hole [993] in S5; appears to be composed of mixed subsoil, floor deposits and sand
995	Fill	Firm, friable, very dark greyish brown (10YR 3/2) mottled with dark yellowish brown (10YR 3/4) silty sand	Fill of small depression/post impression [998] in S3
996	Fill	Firm, friable, mixed dark greyish brown, brown, greyish ash, and black tephra; contains some charcoal and burnt bone fragments	Fill of post hole [997] in S5
997	Cut	Oval cut with steep sides to the E and N, a sloping side to the S, and a rounded base	Cut for post hole in S5, filled with [996]
998	Cut	Round depression, with sloping sides and a bowl-shaped base	Cut or impression of a small post in S3, filled with [995]
999	Fill	Friable, very mixed dark brown (10YR 3/3) and black (10YR 2/1) sandy silt; contains some charcoal (c. 5%), bone and degraded wood fragments	Fill of post hole [1003] in S4
1000	Cut	Oval cut with vertical sides and a rounded base; on large stone protruded on the W side of the base, and 2 small stones were on the S side of the base	Cut for post hole in S5, filled with [1001]
1001	Fill	Firm, friable, very mixed dark greyish brown, brown, black and grey sand and sandy silt; some charcoal (c. 5%), bone and burnt bone	Fill of post hole [1000] in S5
1002	Layer	Firm, friable, very dark greyish brown (10YR 3/2) silty sand with c. 1% charcoal	Small sandy deposit in S3 above the ashy fill of hearth [1022]
1003	Cut	Irregularly shaped cut, with a square protrusion on its E side and a more oval shape on its W side; a flat stone/post pad is on the SE edge of the cut	Cut for post hole in S4, filled with [999]; at the N end of the base is post pipe [1011]
1004	Fill	Friable, dark brown (10YR 3/3) sandy silt	Fill of post pipe [1011], at the bottom of post hole [1003] in S4
1005	Structural	Square setting of lava stones, 3 standing vertical, 2 lying horizontal	Located within the S doorway of S4, on its W edge, this feature is opposite a flat stone on the W side of the doorway, and is probably related to the operation of the door itself (e.g. for pivot or vertical catch)
1006	Layer	Friable, very dark brown (10YR 2/2) sandy silt	Small, thin deposit against the N bench of S4
1007	Cut	Shallow oval cut, rather like a triangle with rounded corners; sloping sides and a flat base	Cut for hearth [1009] in W part of S4
1008	Layer	Firm, friable, mottled dark yellowish brown	Small deposit consisting of lenses of

		(10YR 3/4) and black (10YR 2/1) very fine sandy silt, containing 2-5% charcoal flecks	yellowish brown turf and charcoal-stained silt, capping an organic layer in a depression in the SE corner of S4
1009	Structural	2 flat lava stones packed around by fist-sized cobbles form the base of a hearth	Hearth against the W wall of S4; the sides were missing, but 2-3 charred flat lava stones found in the midden deposits immediately above the hearth could have been disturbed side stones of the hearth; if so, it would have looked rather like the hearths in the pit house
1010	Fill	Friable, very dark grey (10YR 3/1) and very dark brown (10YR 2/2) sandy silt, with some degraded wood fragments	Fill of post hole [1012] in S4
1011	Cut	Round cut with nearly vertical sides and a rounded base	Cut of post pipe at the bottom of post hole [1003] in S4, filled with [1004]
1012	Cut	Oval cut with vertical sides and a rounded base	Cut of post hole in S4, filled with [1010]
1013	Fill	Firm, friable, very mixed brown and dark greyish brown sandy silt; contains some charcoal and bone	Fill of post hole [1014] in S5
1014	Cut	Oval cut with vertical sides and a sloping base	Cut of post hole in S5, filled with [1013]
1015	Structural	Compact turf contains greenish grey tephra; preserved to a maximum thickness of 20 cm; not enough height to distinguish coursing; at the W end of the wall, there appears to be <i>strengur</i> , otherwise the turf is not organised enough to identify its type; upcast material consisting of mixed yellowish brown subsoil and black tephra forms part of the base of the wall	Base of south wall of S4; there is an entrance towards the E end of the wall; on its W end, the wall becomes indistinguishable from the bench, and it appears that the same type of turf material was laid on the bench to level it; a row of stones demarcate the boundary between the wall and the bench
1016	Fill	Firm, friable, very mixed dark greyish brown sandy silt and yellowish brown natural subsoil; contains some charcoal (c. 1%)	Fill of post hole [1017] in S5, apparently consisting of mixed floor deposits and natural subsoil
1017	Cut	Round cut with nearly vertical sides and a rounded base	Cut of post hole in S5, filled with [1016]
1018	Fill	Firm, friable, very mixed dark greyish brown and brown silty sand; contains some charcoal (0.5%)	Fill of post hole [1019] in S5
1019	Cut	Round cut with vertical sides and a rounded base; there is a natural stone protruding from the subsoil in the W side of the base	Cut of post hole in S5, filled with [1018]
1021	Layer	Firm, friable, mixed black and light grey silt (ash), with some lenses of brown fine sandy silt; contains charcoal, burnt bone, and 1 piece of slag	Ashy fill of hearth [1022], below the S3 pavement; belongs to an earlier phase of the building (S6); only partially excavated in 2002
1022	Structural	Flat lava stones and fist-sized cobbles form the base of a hearth; the soil below has been oxidised red by burning	Discovered below pavement [624] and a layer of mixed turf on the last day of the excavation; not excavated in 2002
1023	Fill	Dark greyish brown sandy silt	Fills of the many stake holes in S5; not excavated in 2002
1024	Fill	Firm, friable, very mixed dark greyish brown, brown, black and grey sand and sandy silt; some charcoal (c. 5%), bone and burnt bone	Fill of post hole [1025] in S5
1025	Cut	Oval cut with vertical sides and a rounded base	Cut of post hole in S5, filled with [1024]

Area T - excavation report for 2002

The summer of 2002 was the third and the final season of excavating features discovered at the southern edge of the Sveigakot deserted farm. Exploration of the area which started in 2000 was first limited to a 50x50 cm test-pit that was later increased to the size of a 5x5 m trench. When it was realized that the trench contained unexpectedly rich stratification, excavation was terminated until the following summer when the trench (enlarged to 5x9 m) was “given” to a Polish team under the lead of the present author. Results of the 2001 excavation are summarized in the interim report – cf. Urbanczyk 2002.

In 2002 we managed to complete the field work (**Fig. 1**) within the trench that contained remains of two Viking Age sunken buildings. While the method of excavation was the same as in 2001, we introduced an innovative system of digitized recording, which allowed production of a more precise and ready-to-publish documentation. Due to the small size of both buildings and the fact that only their underground elements survived aeolian deflation, exploration of the cultural layers was not an especially demanding task. However, the number of identified contexts resulted in relatively long recording-time, while the very small size of the stratigraphic units demanded precise excavation and observation of minute traits.

Stratigraphic data collected during the two excavation seasons allows us to attempt a reconstruction of the early “history” of the Sveigakot farm. So far this story has no beginning because the first dwelling has not yet been discovered. The older of the two identified constructions was not a dwelling structure but some farm building of an unknown function – probably a storage house. Thus, the first house, matching the early date suggested by the base accumulation of the midden area, is still to be found to provide a possibly full picture of the settlement phase.

However, one may intermittently consider an alternative vision of the beginning of the Sveigakot farm. It is possible that the site was first taken in an agricultural use not as a regular farm but as an outfield seasonally exploited by some not distant farm. In such a case it was not necessary to build a solid house because a simple shed could fulfill daily needs while a more elaborate construction was needed for storing hay and/or dairy products. If this model was true, the direct occupation would begin somewhat later as an outcome of demographic pressure, which either pushed some people to resettle to this marginal area, or it limited the



Fig. 1. Natural ground after excavation (phot. R. Zukowski).

choice of still arriving newcomers and made them settle in a less favorable environment. Only at this stage could the first house have been built, leading to a spatial reorganization. Although tempting because of its concordance with the currently available information, such an explanation has to be considered as speculation waiting for results of further excavations.

Therefore, we have to content ourselves with actual stratigraphic data, which unfortunately, do not allow reconstruction of the very beginning of the development in the excavated area. The full story is not yet attainable because we do not know what was the original level of the ground surface. This is due to the unknown rate of deflation caused mostly by strong winds that have been swiping the surface after it had been deforested by the early settlers. What is left in Sveigakot is a “random” sample that survived thanks to numerous stones and boulders that halted wind- and water-erosion. Anyway, today there is no answer yet to important questions – e.g. “How sunken were the two excavated buildings originally?” or “What was the spatial organization of their closest surroundings?”.

The older (**house II**) of the so far discovered structures was a small building with a sunken floor, which survived as an oblong depression delineated by irregular contours. It was dug down into the ground containing many stones of various sizes. The very uneven bottom



Fig. 2. Suggested inner division of house II (drawn by P. Urbanczyk and R. Zukowski).

surface probably reflects the original positions of stones that were removed by the builders. The bottom slopes gently from the sides towards the inner part of the structure.

The exact shape and size of the structure is not clear because of surface deflation that has destroyed much of the western and south-western edge of the floor level, not to mention the walls. Judging from the better preserved eastern edge, where a vertical wall survived, the floor was originally dug at least 30 cm into the ground. The original size of the floor was ca. 6x2,5 metres with the longer axis oriented ca. N-S.

We know nothing about the construction of the walls. Rows of thin (7-12 cm) posts placed along both longer walls supported the roof. The inner space was divided into two “rooms” separated by two transverse rows of small posts (**Fig. 2**). Each “room” had a separate entrance

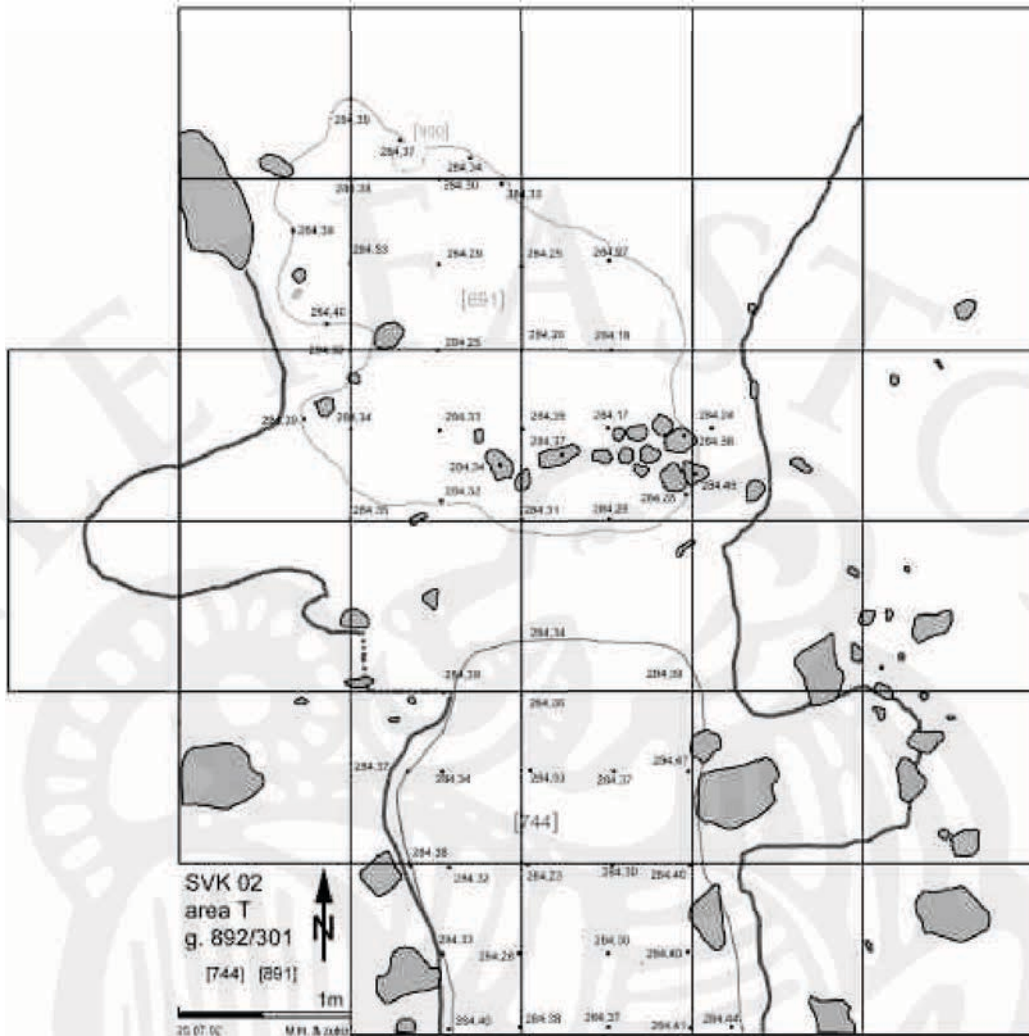


Fig. 3. The final stage of house II (drawn by R. Zukowski).

opening on the opposite sides of the building. These entrances are visible as two small extensions protruding from the western and eastern wall. The north “room” was ca. 2,5x2 m, while the south “room” might have been smaller – ca. 2x2 m. There was no dividing wall between the two “rooms” because some of the layers that later covered the floor spread over the whole surface of the building (contexts [897] and [896]).

Both “rooms” had shallow depressions in the middle. There rests of some highly organic matter had accumulated surviving in the form of a red-brownish silt [907 and 908]. These were, probably, remains of the stuff that was originally stored in the building. Thus, analysis of samples of these layers may shed light on the function of this mysterious structure. In the north

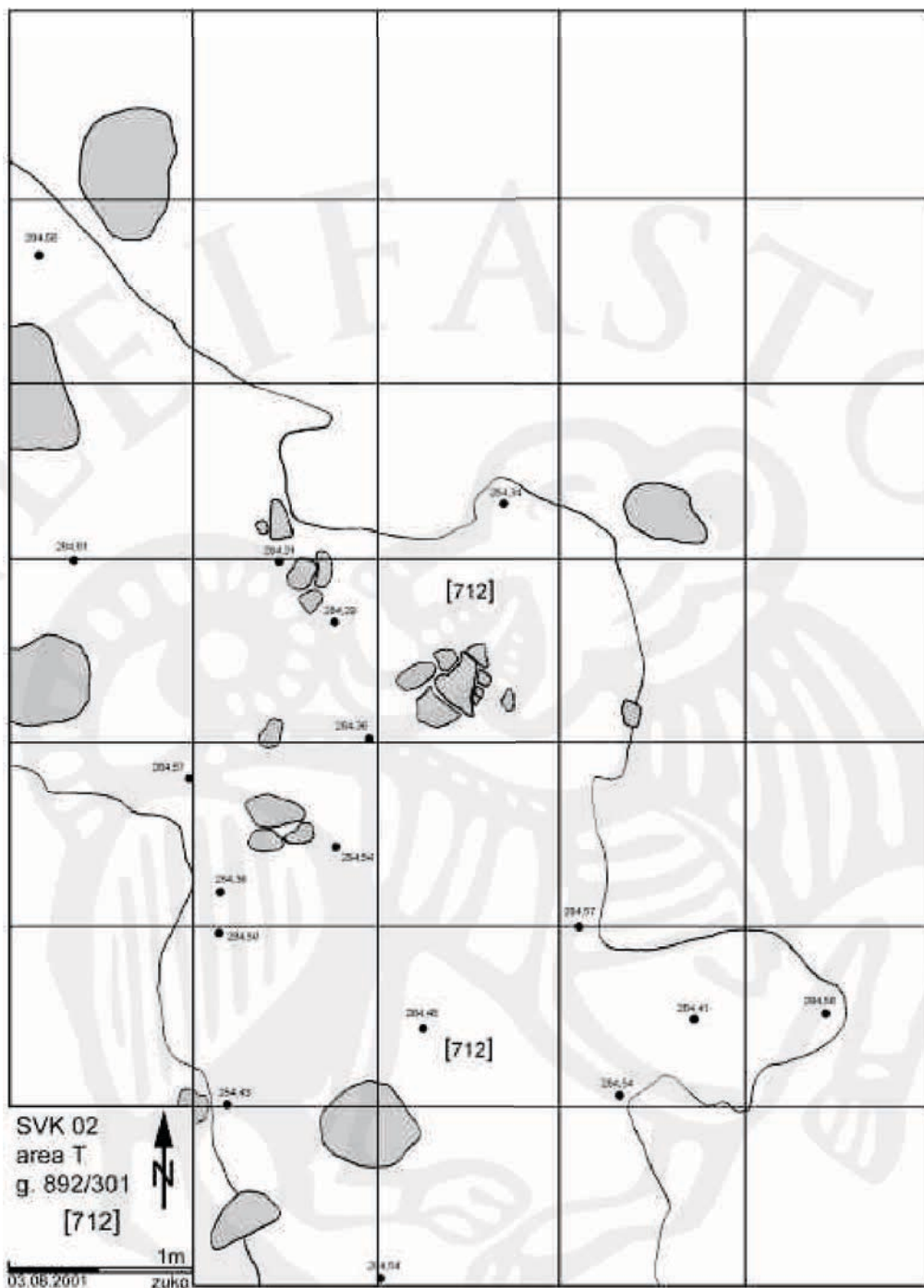


Fig. 4. Rest of the turf wall/roof collapse (drawn by K. Skrzynska and R. Zukowski).

“room” layer [907] contained large number of crushed mammal bones and bird bones, provisionally identified by Thomas McGovern as ptarmigans.

Later a layer of brown gravelly sand [897] “entered” the building through the western entrance and covered the southern and western parts of the floor area. A plan of changing the function of the building (**phase 2**) started with leveling of the whole interior and both entrances with a dark brown sandy layer [896]. On this new floor a hearth [895] was placed in the middle of the north “room”. It was made of two thick flat stones flanked with two other stones. Intensive use of this heating device is testified by a thick and compact layer of charcoal and ashes [894]. In this layer some boat-nails and a fish-hook were found, which suggests burning boat planks, which in turn may point to the lack of burning wood. There were no indications (e.g. artifacts, compact floor layers) for a permanent habitation. This suggests that the building was used as a temporary shelter. However, two thin sandy layers (dark brown silty sand [891] covered with brown sand [890]) subsequently accumulated on the floor of the north “room”. While this part of the building was actively used, the south “room” had a visibly different function. It was probably used for storing some organic material, which survived as a very thin reddish-brown organic silt [744] – **Fig. 3**.

This building went out of use or suddenly collapsed with its turf roof and/or walls covering the whole interior and its direct vicinity. A thick layer of mixed turfs [712] survived only in the depressions while the rest was removed from the surface by eroding wind action (**Fig. 4**). Therefore, it is difficult to determine what was the chronological relation of the grayish-green tephra (V~950) and the building under discussion. This volcanic layer was seen as thin lenses mixed in the turfs. However, it is not certain whether these turfs were cut when the tephra already covered the area, or whether the volcanic eruption took place shortly before the collapse, which resulted in mixing of the ashes in between falling pieces of turf.

Similarly, there is no stratigraphic data to estimate the relative chronology of a large pit [898] discovered in the north-western part of the trench. This round feature with vertical walls and flat bottom could have been dug and filled before the mentioned building was constructed, when the building was in use, or after it collapsed.

Some time later a new structure (**house I**) was constructed at the northern edge of the ruin so that it cut through the collapse of the former building. It was a small hut with sub-rectangular sunken floor oriented ca. NW-SE (**phase 1**). This orientation might have been forced by the topography of the area itself. The ground in Sveigakot, full of stones, boulders and rocks, is very “unfriendly” for people who want to sink their dwellings. It is simply impossible to find a space free of these natural obstacles. Those who built both excavated structures must have been driven by a very strong will to have their buildings dug down and have been ready to invest much time and labour.

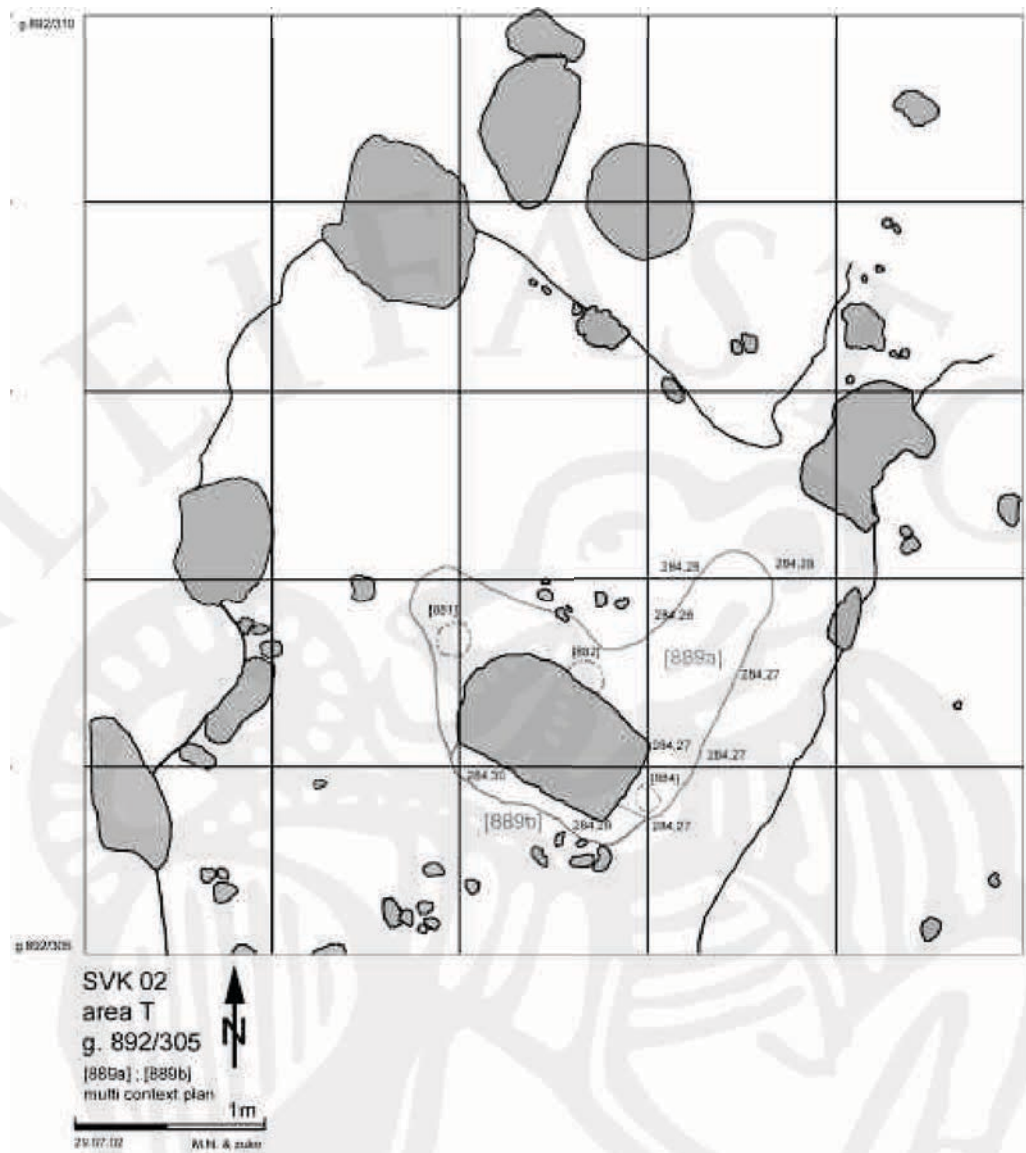


Fig. 5. Boulder sunken in the bottom of house I (drawn by R. Zukowski).

These problems may explain the irregular shape of the House II. Such a compromise could not have been accepted when building a house for dwelling because a habitation space must fulfill certain basic requirements, including a regular shape. The constructors of House I devoted much hard labour to achieve desired living conditions. The uneven bottom of the floor base testifies that many stones must have been removed to get to the planned depth. The same could not be done with large boulders. Thus, two boulders that were visible on the surface were

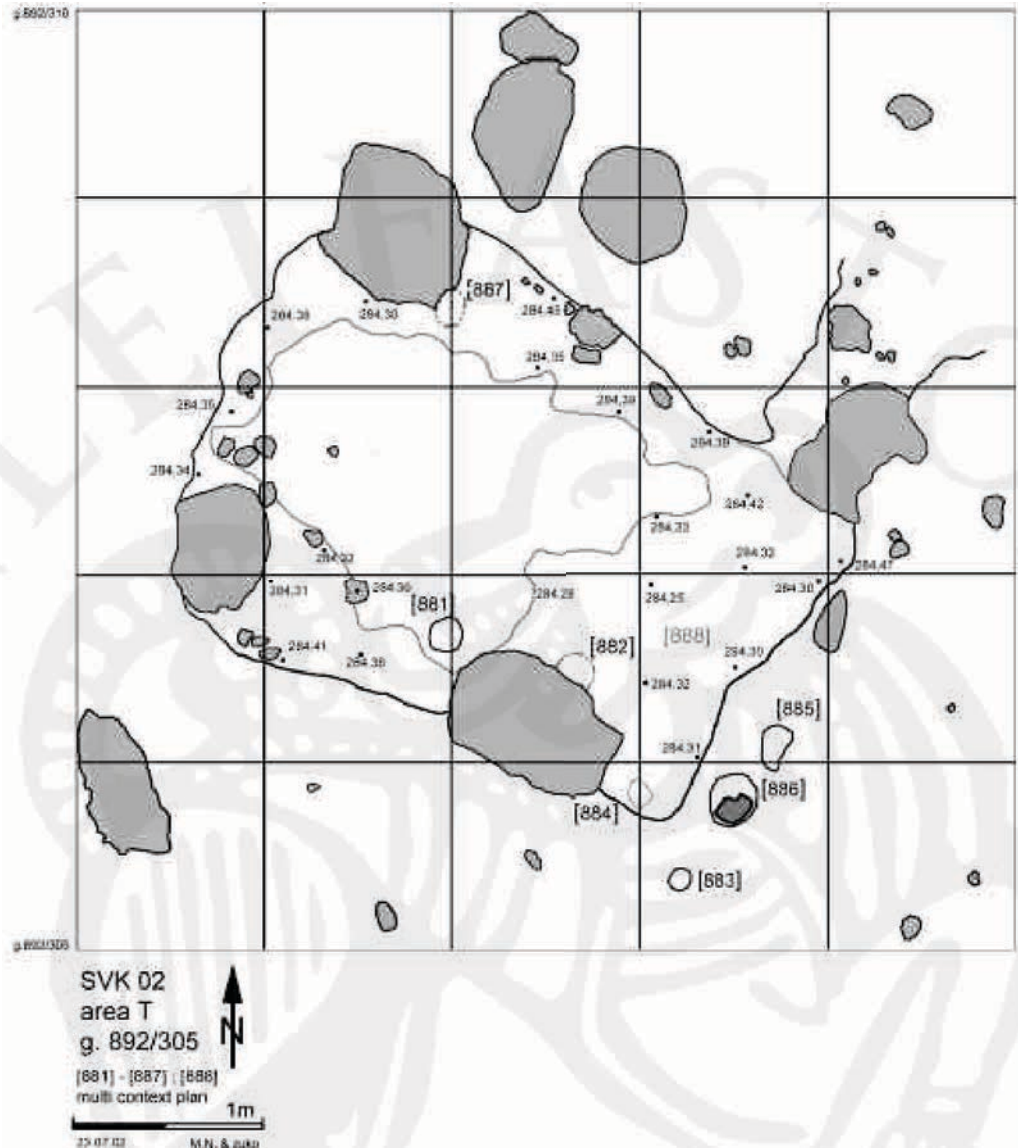


Fig. 6. The first floor of house I - phase 1 (Drawn by R. Zukowski).

used as W and N corners of the structure. Smaller ones were pulled or rolled out using a sloping “ramp” leading from the sunken floor to the entrance.

This could not be done with a rectangular rock found in the middle of the planned floor area. Thus, another trick was employed. By digging under and around the boulder it was undermined, turned over to have a flat surface up, pushed aside and sunken ca 30 cm into the ground (**Fig. 5**). Then the space around the rock was quickly filled with the same gravel [889a]. A vertical “slot” behind the boulder was filled with dark sand containing many bones

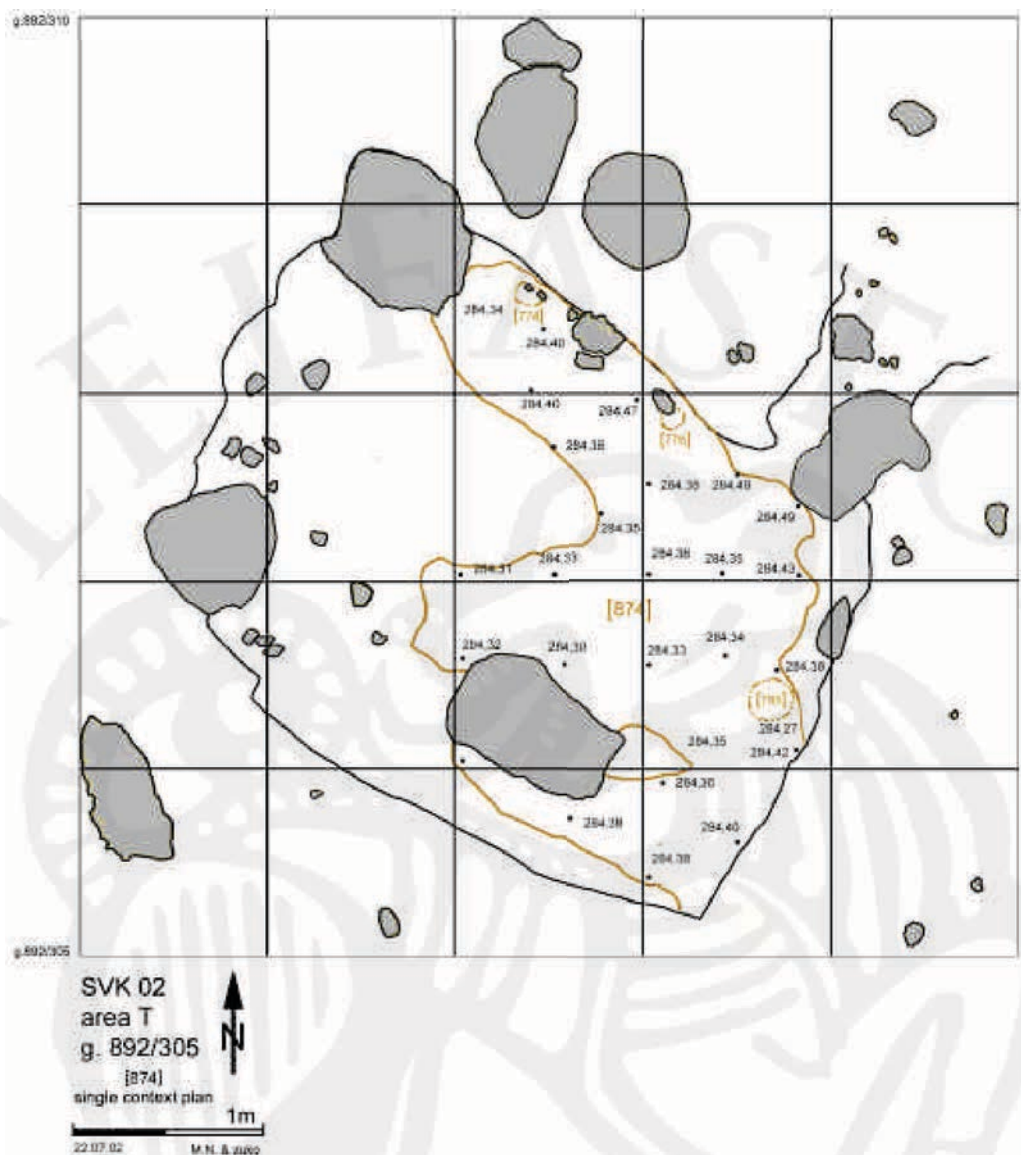


Fig. 7. The second floor of house I – phase 2a (drawn by M. Natuniewicz and R. Zukowski).

[889b]. The hasty way of filling the pit resulted in open cavities left under the rock. They were still visible when we emptied the pit.

The flat surface of this boulder sticking up from the floor most probably served as a useful working “table”. The entrance to the hut was located in its E corner. It was a 60 cm wide and 120 cm long passage leading to a deep depression discovered in the NE corner of the trench, where a separate stratigraphic sequence accumulated. This entrance had a separate

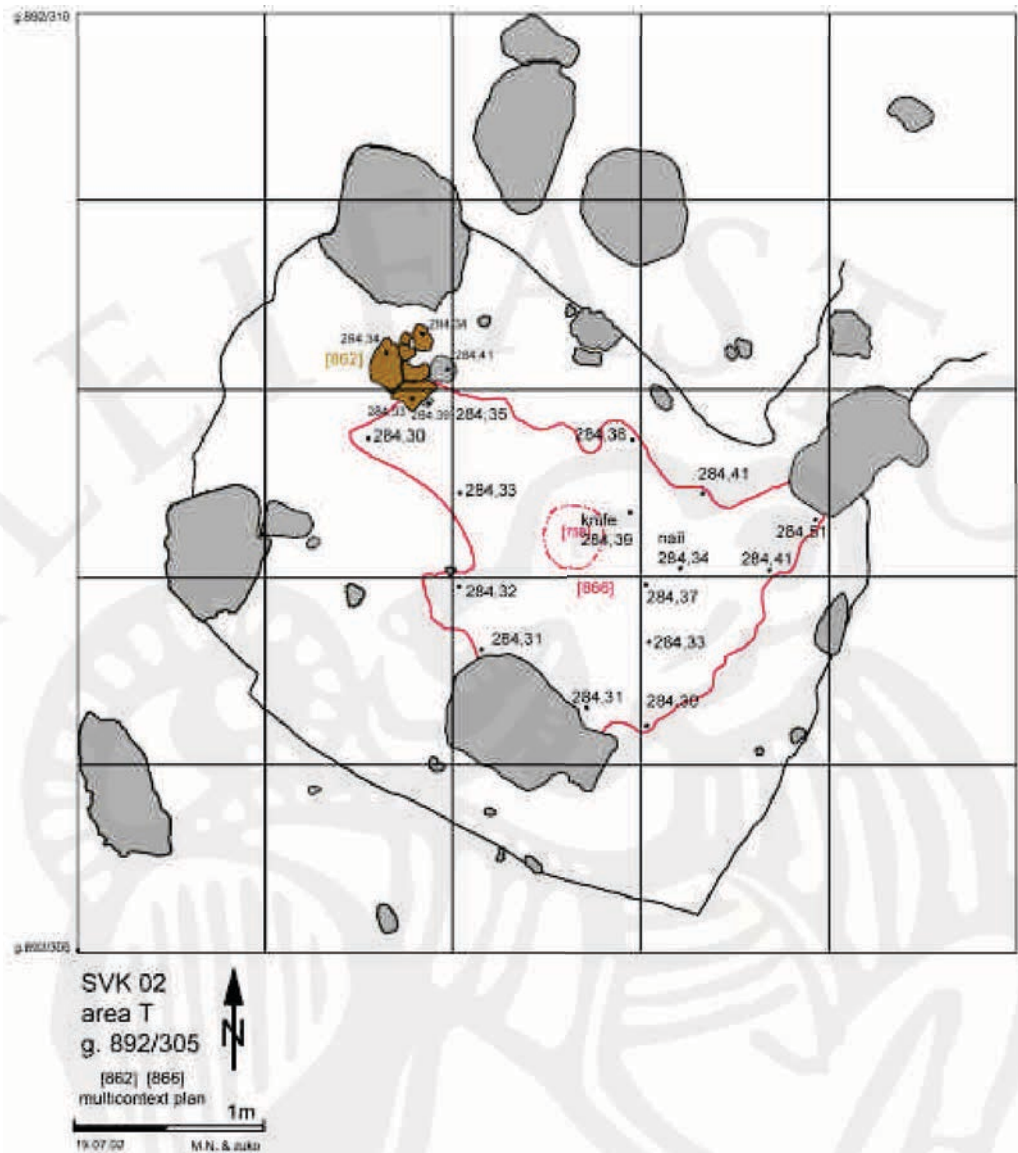


Fig. 8. The first hearth in house I – phase 2b (drawn by M. Natuniewicz and R. Zukowski).

construction supported by three pairs of side posts. The floor area was dug ca. 30 cm into the ground, forming a small trapezoid surface (2,0-2,5x3,2 m) with flattish bottom and a “ramp” leading up the entrance.

At first, the bottom of the floor depression was made even by spreading dark brown sandy gravel around the walls [888]. This layer containing single bits of charcoal and some animal bones must have been brought from outside. At this stage some vertical construction

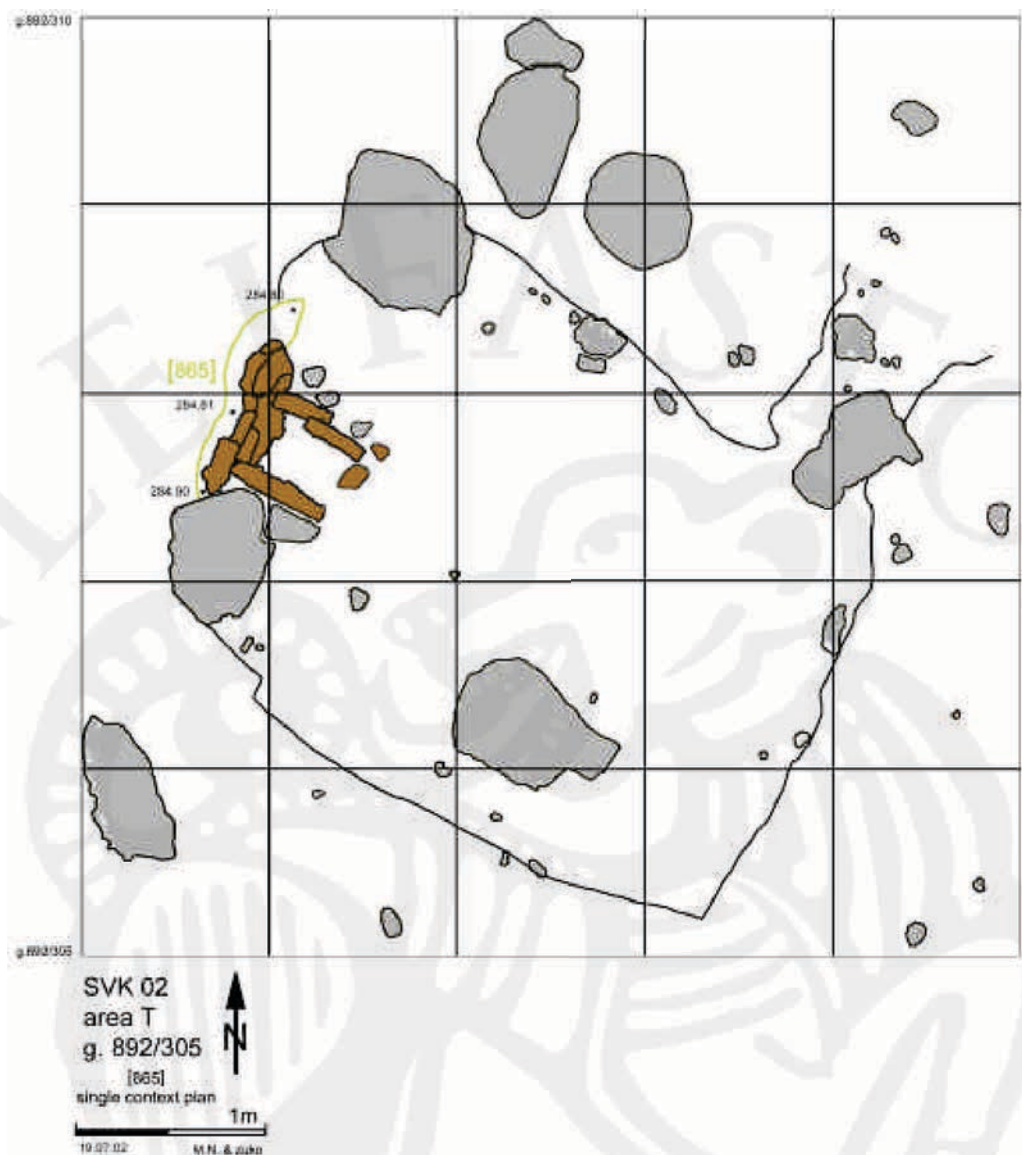


Fig. 9. “Fireplace” in phase 3 of house I (drawn by R. Zukowski).

was made. Of this six post-holes were identified: three [882, 884 and 887] cut layer [888], while other three [881, 883 and 885] are placed behind its limits. There was also a post pedestal [886] made of a flat lava stone placed in a shallow depression (Fig. 6). Rests of rotten wood were still visible on the stone. Pieces of wood were also found in post-holes [883] and [885].

For some reason, the original outlay was not retained and the floor area was enlarged towards S and E. This action shaped the house into a rectangular shape ca. 3,8 m long and 2,6

m wide (**phase 2a**). The provisional use of this space is testified by silty-sandy dark brown layer [874] that covered the eastern half of the floor (**Fig. 7**). In the centre there was a concentration of ashes and charcoal, possibly indicating a hearth. The layer was trampled in the middle of the floor and firm along the walls. It contained some large animal bones. At this stage the hut depression was left open because there were no traces of any vertical construction. Moreover, brown silty sand with bits of charcoal accumulated as a stripe of changing width spread along the walls [873]. It might have originated as a result of erosion of the earthen walls.

A new concept of spatial organization (**phase 2b**) was introduced with placing a small open hearth near the boulder “standing” in the N corner of the hut. It was a shallow round pit filled with gray charcoal and ashes [872] which underlay the hearth base made of lava slabs [862]. Also this phase was rather temporary because it left only a thin floor layer. It consisted of black hard-trampled ashy silt [866] that accumulated on the floor in result of spreading the “products” of the hearth [862] towards the door opening (**Fig. 8**). The layer contained a nail, a small knife and various bones. There is no data to discuss eventual roof construction.

A decision to turn the house into a permanent dwelling resulted in a rearranging of the interior (**phase 3**). Near the boulder “standing” in the W corner a nice fireplace was built [861]. It was made of three vertical lava slabs: the longest one (ca. 75 cm) leaned against the earthen wall of the floor depression while two others (50 and 55 cm) put perpendicularly formed a small space (ca. 35 x 50 cm) open towards the centre of the hut. The back slab was kept 10-15 cm away from the house wall by small stones. This space was quickly filled with soft silt containing some bones – including a mouse skull [865] – **Fig. 9**. A part of the new arrangement was a sandy layer [863] that covered ca. half of the floor surface spreading from the door along the SE wall and turning along the SW wall all the way to the slab-constructed hearth [861], where it formed a small “sitting bank”(?).

The first traces of the use of this “new” house accumulated on the “ramp” leading to the entrance. There an irregular patch of gray-brown ashy sand [860] was recorded, which was subsequently covered by a patch of dark-brown sandy soil [859]. This layer contained just some small bones and fragments of burned bones. Both contexts could have formed as a result of throwing inside the house some material brought from the exterior to make the entrance “ramp” even.

Later an ashy layer [782] accumulated that was the last context recorded in the previous season 2001. This was covered by dark brown sand with single charcoal bits and

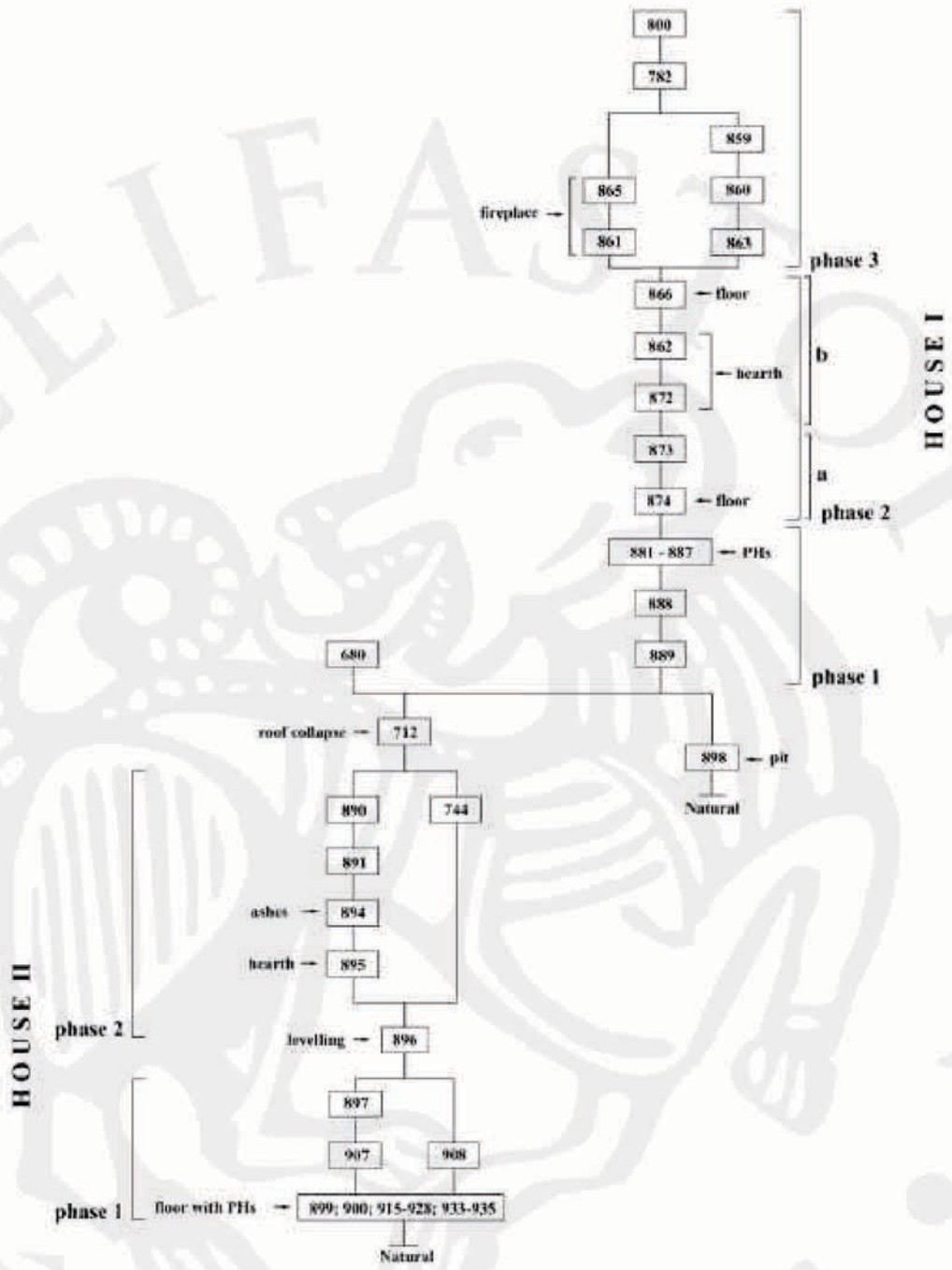


Fig. 10 Stratigraphic matrix of contexts excavated in Area T in 2002.

some bones. This floor context [800] covered almost the whole area of the house. A nice semi-spherical spindle-whorl made of red sandstone was found near the vertical lava slab that framed the hearth. A little bit further south a piece of a whalebone plaque(?) popped up.

This stratigraphic story is illustrated by the matrix showing all recorded contexts in a relative chronological sequence (**Fig. 10**). Later events are described in the first interim report (cf. Urbanczyk 2002).

Herding Strategies at Sveigakot, N Iceland: an Interim Report

Abstract: Between 1999-2001 Archaeological Institute Iceland (FSI) excavations at Sveigakot in Mývatnssveit in N Iceland recovered substantial animal bone collections from midden deposits in two main areas of the site (unit M and unit T). Tephra allow phasing of these deposits into three main analytic units (AU 1-3) which roughly correspond to structural phases I, II, and V. The earliest material (AU1, Phase I) was deposited in area M directly upon a forested surface still covered by the Landnám tephra of ca AD 871+/- 2 and currently represents the oldest datable archaeofauna in N Iceland. A mid 10th c. Veidivötn tephra (initially given context number 007, labeled SVK tephra "A" in Dugmore and Newton 2003) runs across the area M midden, providing a stratigraphic boundary between lower (AU1) and upper (AU2) midden deposits in this area. Both AU 1 and 2 produce overlapping radiocarbon dates in the late 9th-mid 10th centuries AD. After the fall of this Veidivötn tephra, a small pit house was built to the S of midden area M, and this pit house was later in-filled with midden deposits (AU 3). Radiocarbon dates indicate that the fill of T occurred in the later 11th- early 12th c. The three midden analytic units show a general decline of cattle from early to late phases, and a marked decline in pig and goat relative to sheep in the latest layers. Aging data suggest that cattle were managed for dairy produce and pigs for meat, but that sheep were (perhaps increasingly) managed primarily for wool production. The Sveigakot archaeofauna represents the first Settlement Period collection large enough for herding strategy reconstruction, and will provide a useful comparison with equally substantial archaeofauna from Hofstaðir and other sites in the region.

Introduction

This interim report provides the first complete quantification of the domestic mammal bones from the Sveigakot midden deposits. Wild species (fish, birds, fox) are under study and will be reported separately in the next interim report. Additional bones were recovered from floor layers and from a small terminal phase midden in Phase VI, but these have not been included in the present report to avoid mixing fundamentally different depositional types in the same analysis (floor deposits vrs middens). Since middens tend to collect refuse from a wide range of activities and from different original points of deposition around a site, they tend to blur together the many activities taking place in the course of the year and to conflate and homogenize the many activities associated with animal and human bone modification (slaughter, dismemberment, meat preservation, cooking, consumption, craft use, childrens' play, dog gnawing). For general economic reconstruction, this homogenization is a positive factor. If sample size and excavation units are large enough midden deposits regularly produce the best overall view of economic organization on a site and provide the best basis for inter-site comparison. Smaller concentrations of bone more directly associated with primary deposition (single butchery event, single meal, small store of meat, bone or horn

working) can greatly contribute to functional interpretation of rooms and features, but are far more likely to skew an overall economic picture. The main purpose of the current interim report is to present the complete domestic mammal data and discuss the implications of the reconstructed age structure of the archaeofauna. Later reports will present related data on domestic animal size, butchery, taphonomy, and pathology. Since excavation continues and site phasing is still being finalized this report will use analytic units (AU) rather than phase or temporal labels.

Changing Relative Abundance

Table 1 presents the **count** of all domestic mammal bone fragments from the two analytic units (AU 1 & 2) from midden M the analytic unit 3 from midden T and the total for all midden deposits (NISP 8,093). NISP (number of identified specimens) refers to all fragments that could be identified to a useful level, in this case to species level except for the “caprine” category. As most bones of sheep and goat skeletons cannot be identified to species, zooarchaeological analyses produce a substantial number of bones that can be securely identified as either sheep or goat but not assigned to either species. Thus “caprine” refers to both these indeterminate fragments and to both species taken together (equivalent to “ovicaprid” or “O/C” of other workers) when they are collectively compared to cattle, horse, or pig (all of which are far easier to identify to species level). No dog bones are present in the collection, but characteristic canine tooth marks are present on a number of bone fragments in the collection. Where there was evidence of articulation observed in the field or in the laboratory articulated elements were counted as a single NISP to avoid multiple counts of the same individual.

Table 1

Approximate dates	1. 9th-mid 10th	mid 10th-e.	1. 11th-12th c	
	c	11th c		
Phase	I	II	V	
AU	1	2	3	
	Lower Midden	Upper Midden	Midden	
Taxon	M	M	T	TOTAL
Cattle (<i>Bos taurus dom L.</i>)	245	371	1220	1,836
Horse (<i>Equus caballus dom.L.</i>)	1	21	8	30
Pig (<i>Sus scrofa dom L.</i>)	53	117	46	216
Sheep (<i>Ovis aries dom L.</i>)	34	98	241	373
Goat (<i>Capra hircus dom L.</i>)	15	13	14	42
Caprine	336	993	4267	5,596
Total Caprine	385	1104	4522	6,011
Total Domesticates	684	1613	5796	8,093

Table 2 presents the same data converted to **percentages** to allow better comparison of relative abundance in the different phases. Note that while AU 2 and AU 3 have a far larger NISP than AU 1, even this smallest analytic unit is more than double the 300 NISP minimum limit for comparison established by the NABO Zooarchaeology Working Group. AU 3 (fill of pit house T) is large enough to generate a statistically useful sample of tooth rows and will provides our best view of age structure of the domestic animals at Sveigakot.

Table 2 Percent NISP	AU 1	AU 2	AU 3
Cattle	35.82	23.00	21.05
Horse	0.15	1.30	0.14
Pig	7.75	7.25	0.79
Sheep	4.97	6.08	4.16
Goat	2.19	0.81	0.24
Caprine	49.12	61.56	73.62
Total Caprine	56.29	68.44	78.02

Figure 1 graphs this data, providing an overview of changing relative percentages through time. Note that despite differing total sample sizes, the relative percentages of major taxa show consistent patterning.

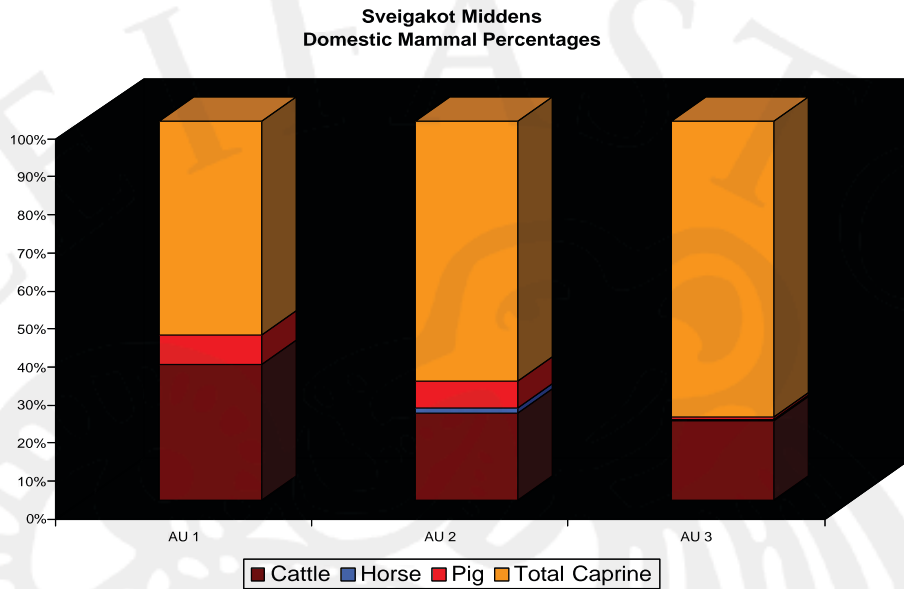


Figure 1

Note that while there is a decline in cattle bone from AU 1 to AU 2 (36% to 23% of total domesticates) the proportion of pig bones remains stable (at about 7%) and the difference is made up by an increase in total caprines. Horse bones remain a trace element throughout, and their split and butchered condition indicates that they were probably a small part of the regular diet. There is not enough horse material to effectively age, but the wear on the few teeth recovered indicate fully mature animals rather than young horses.

The transition between AU 2 and AU 3 (fill of pit house T) is more marked than the earlier change, as pigs nearly disappear, cattle remain about the same, and caprines again increase in numbers. In both transitions (AU 1- AU 2 and AU 2 –AU 3) caprines expand their numbers, but by AU 3 the original mix of species is significantly tipped towards caprines.

Table 3 presents **direct ratio data** that may help to clarify these relationships

Table 3 Ratios	AU 1	AU 2	AU 3
caprine/cattle	1.57	2.98	3.71
caprine/pig	7.26	9.44	98.30
sheep/goat	2.27	7.54	17.21

In AU 1 there were about 1.5 caprine bones for every cattle bone, while by AU 3 this ratio had changed to nearly 4 caprine bones for each cattle bone. By AU 3, there were nearly 100 caprine bones for each pig bone. The proportions of identified sheep to goat also change between analytic units (from about 2 sheep bones for every goat bone to just over 17 sheep for each goat). As figure 2 illustrates, it appears that the increase in overall caprine category in AU 3 was in fact an increase in sheep rather than a simple expansion of the original mixed flock of sheep and goats.

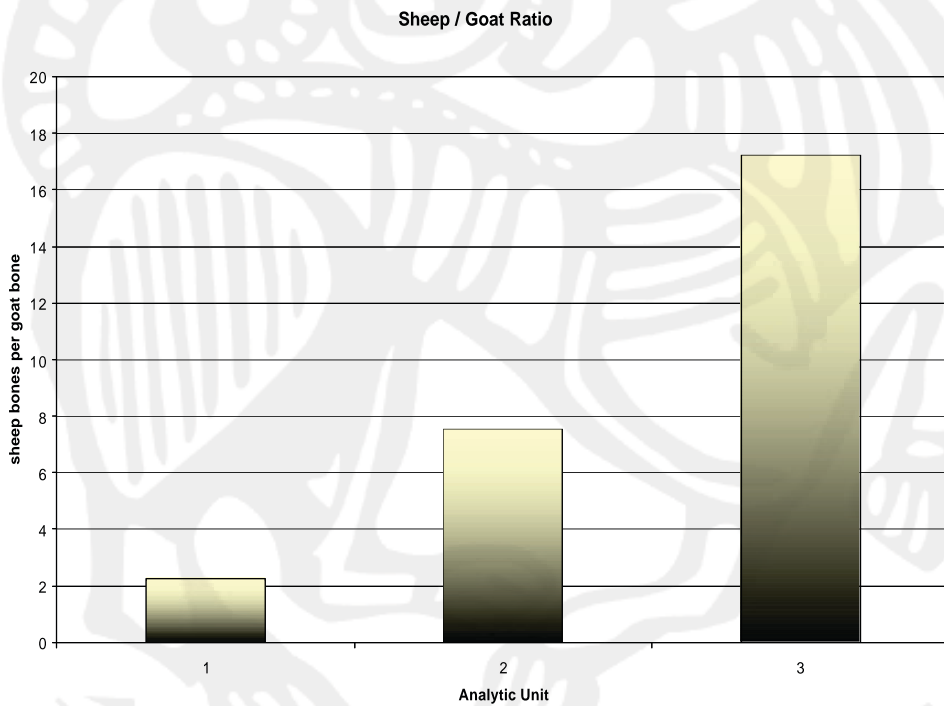


Figure 2. Higher bar indicates more sheep relative to goats.

Age Reconstruction

Zooarchaeologists have traditionally used tooth eruption, tooth wear, and the fusion of the ends of long bones to reconstruct the age of death of domestic mammals (review in Wilson, Grigson & Payne 1982, see also Hillson 1986, Reitz and Wing 1999). Each approach is limited by natural variability among individual animals in the pace of growth and maturation. Nutrition, activity level, castration, parasitism, disease, and other cultural and environmental factors influence tooth and bone growth as much or more than genetics of the breed in many cases. Attritional loss of bone during the taphonomic changes associated with butchery, consumption, gnawing, burning and decay do not affect all parts of the skeleton equally, and in most cases there is strong selection against the less dense and less fully calcified bones of younger animals (Maltby 1982, Lyman 1994). While tooth eruption schedules for most domestic mammals vary within a fairly restricted range, tooth wear is dependent upon both age and the abrasiveness of the food eaten. As Mainland (2000) has demonstrated for Greenlandic Norse sheep, wear rates increase rapidly when more abrasive grit and soil particles are ingested. Most workers have combined analyses of mandibular tooth eruption and wear with examination of the fusion percentages of selected (dense) long bones (O'Connor 1982, Bartosiewicz et al 1997, Dobney et al 1999, Maltby 1979). This study follows the well supported and clear presentation of Enghoff's publication (2003) on the Greenlandic archaeofauna from the farm beneath the sand (GUS) in age assignment, terminology, and authorities consulted.

Neonatal Elements:

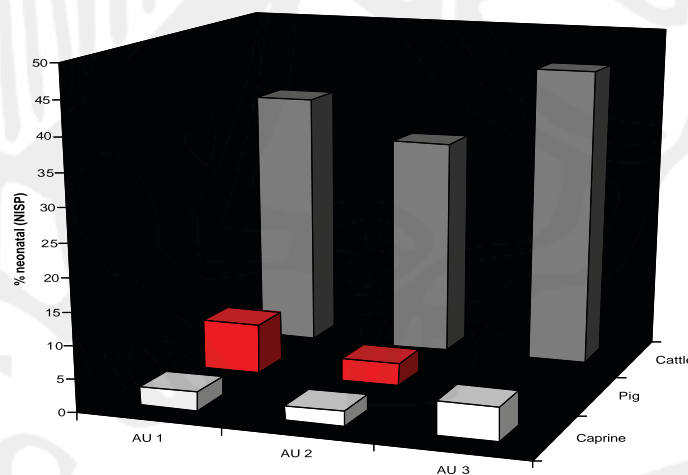


Figure 3.

The bones of new born or very young animals are recognizable by their size and surface texture as well as by their largely unfused epiphyses. It is usually possible to identify such young individuals on most bone elements. Figure 3 illustrates the percent of taxon made up by neonatal cattle, pig, and caprines for the three AU.

While cattle neonatal bones vary between 30 -45 % in all three AU, the proportion of very young pigs and caprines is much lower (pigs ranging from about 8% to none, caprines ranging from 2-5%). This major difference in proportion of neonatal bones indicates a significant difference in farming strategy for these three taxa.

Cattle Mandibular Tooth Eruption & Wear

In order to better understand the age structure of the cattle bone collection, a first step is to compare the wear of the deciduous teeth and the eruption state of the adult teeth. Figure 4 illustrates this pattern (all AU combined), which appears to support the indication provided by the count of neonatal bones- most of the mandibles are from newborn calves with no wear at all upon their deciduous 4th premolar (dp4, terminology follows Hillson 1986). Some young mandibles have light wear on the dp4 but no erupted first molar (M 1) and are probably less than 3 months old. A few more have erupted M1 but no second molar (M 2) and are around 5-6 months old. There are no examples in the next eruption phase (ca 15-18 months), but several fully adult tooth rows (third molar in wear). While the sample size is small, it does not contradict the neonatal bone indication of substantial mortality among very young calves.

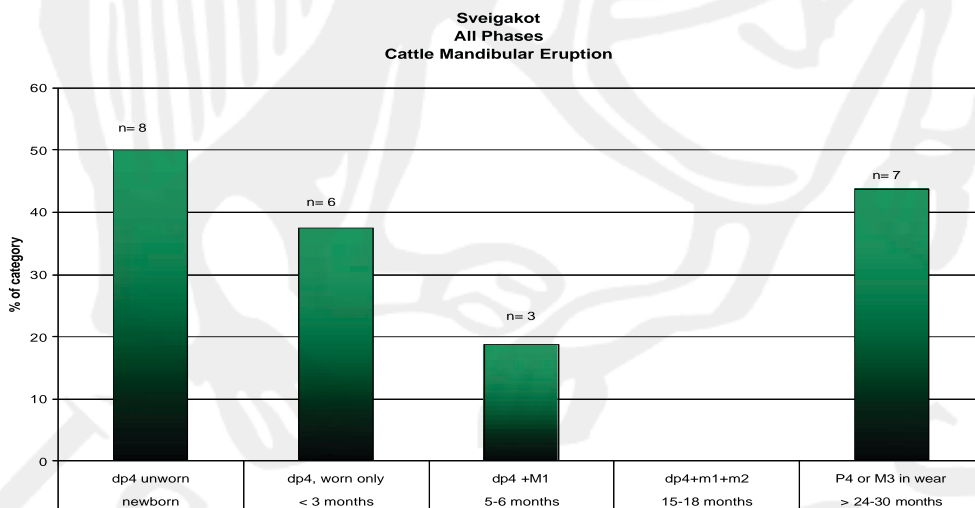


Figure 4

The widely used scoring system of Grant (1982) allows for calculation of a Mandibular Wear Stage (MWS) as well as scoring of wear state for individual teeth. While age assessments of wear are always more problematic than assignment of eruption state, Grant's system allows a consistent and replicable wear assessment. Assignment of age to wear state is far more difficult (especially where tooth wear rates may vary) so age labels should be taken as approximations only (assignment follows Enghoff 2003). Figure 5 presents the MWS assessment of the surviving cattle tooth rows from the three AU.

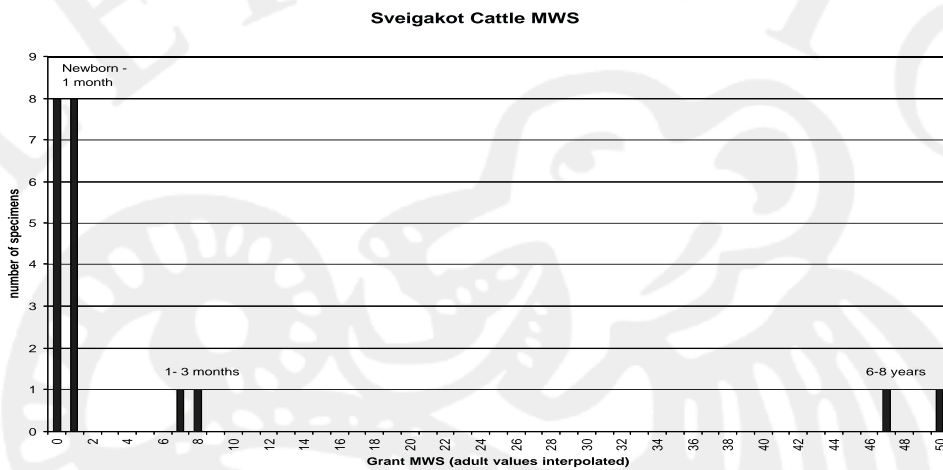


Figure 5.

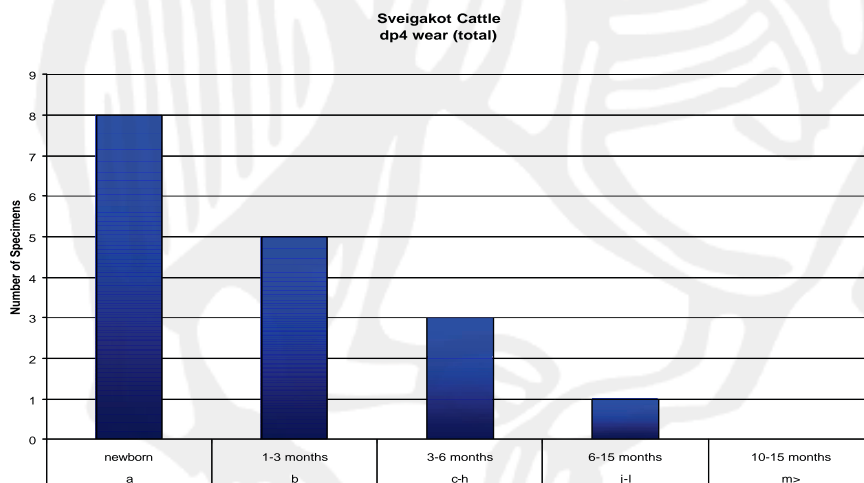


Figure 6.

As figure 5 indicates, the MWS scores again suggest a collection made up of very young and very old animals and not much mortality between. If we look only at wear on the dp4 (thus from calves younger than two years old) as in figure 6, it again appears that the great majority of these young calves are in fact dying very young (spring or early summer), with a secondary peak in mortality around 6 months old (ca October-November if calves are born in May).

Cattle Long Bone Fusion

The use of fusion of long bones for age assessment is complicated by differential attrition due to different bone densities (proximal humeri are far less dense than distal humeri) and by butchery practices (such as widespread longitudinal splitting of metapodials). In this report four bone ends of roughly comparable density and survival rates which fuse at different ages (1-1.5 years for distal humerus to 3.5-4 years for distal radius) are used to give an indication

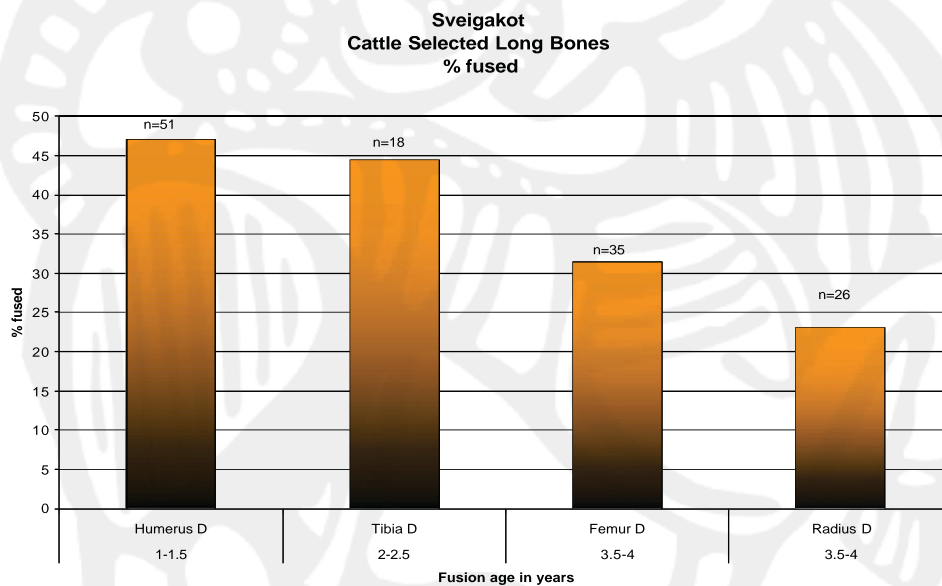


Figure 7.

of the proportion of cattle who lived long enough to reach a particular skeletal fusion state. Figure 7 presents these data. About half of the cattle surviving past their second year (ca 45% fused distal humerus and tibia) were still alive beyond their 4th year (ca 25-30% fused distal femur and radius). This pattern indicates that (as the MWS scores suggest) many cattle who survived early peaks in mortality in fact survived to be fairly old individuals.

Cattle Age Profile Interpretation

Despite some small sample sizes, our different categories of age indications for cattle at Sveigakot do present a mutually consistent picture of a mortality pattern of slaughter of very young animals and very old ones, and little mortality between. This pattern is usually interpreted as a clear dairying strategy, and would seem to reflect the culling of most calves soon after birth, a minor secondary cull of surplus or infertile heifers, and a surviving herd made up mainly of reliable milking cows (Halstead 1997).

Pig Age Assessment

Pig bones are much rarer than cattle or caprine bones in all layers, and the number of elements usable for age assessment is similarly limited. However, as figure 3 (neonatal bone %) indicates, both adults and piglets were present on site in all phases except AU 3 (T fill) when no neonates were observed. Only three pig mandibular tooth rows survived, one from an animal 4-5 months old, and two from ones at least 21-24 months old. The fusion state of the same selected long bones used for cattle (Figure 8) indicates that animals survived at least into their third year, though low sample size makes this chart essentially a presence/absence test rather than providing proportions of survival.

Inspection of other pig bone elements and loose teeth provides the impression that animals of many ages were present in the archaeofauna, and that the pattern in survival does not change noticeably through time. The pigs of Sveigakot seem to have been culled at many ages, and do not seem to have been eaten exclusively as young or very old animals. These early Icelandic pigs (whose breed is now extinct) were small, long-snouted animals very different from most modern domestic breeds. They certainly had a far lower adult body weight than modern breeds, probably slower growth rates, and less difference in body mass between older animals and nearly grown juveniles. A meat production strategy might thus make less distinction between age classes for consumption than modern pork producers, who tend to slaughter animals in age cohorts as they reach full body size. If the animals were in fact not closely herded and spent much of the year foraging in woodlands or wetlands outside the immediate farmyard, then pork consumption patterns may have reflected ease of capture

**Sveigkot Pig
Selected Long Bone
% Fused**

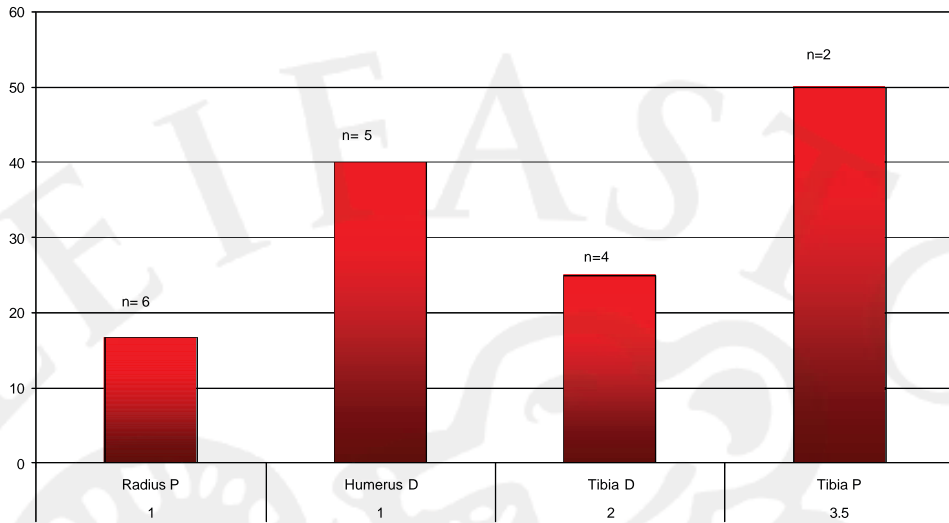


Figure 8.

of individuals as much as any other factor. As more early pig bones become available from nearby sites these issues may become clearer.

Caprine Mandibular Eruption and Wear

Sheep and goat mandibles are much more common than cattle or pig mandibles in the Sveigkot collection, and provide a solid basis for investigation of age of death. In this analysis all goat bones have been excluded, and only identified sheep and caprine (mainly if not entirely sheep) bones included. In all mandibular studies only mandibles that were positively identified as sheep or as probable sheep (following standards of Halstead et al 1999) were included to avoid confusion.

Mandibular Eruption State

Figure 9 presents the mandibular eruption patterns for the sheep jaws at Sveigkot .

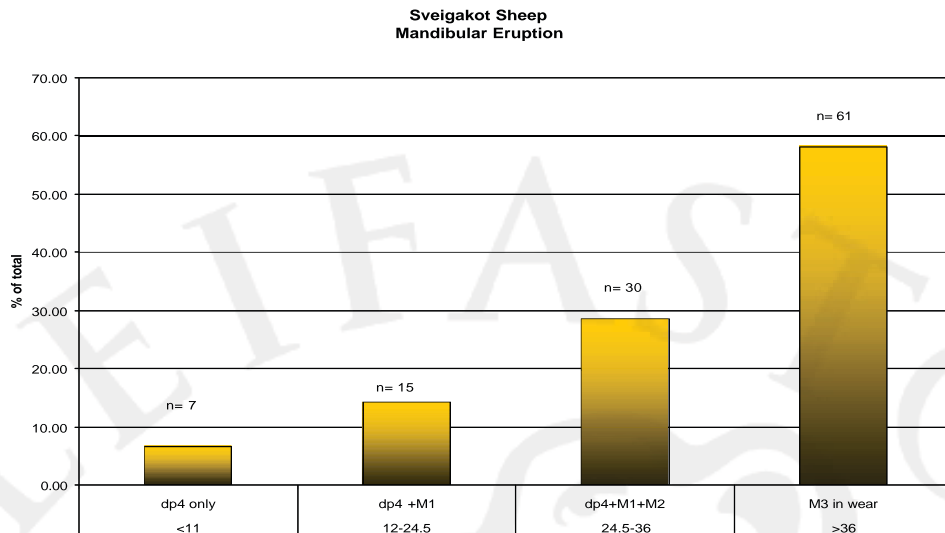


Figure 9

In strong contrast to the pattern of cattle mandibular tooth eruption, the sheep tooth eruption data indicate low mortality in the first year of life and a substantial proportion of fully adult sheep in the flock. This pattern is consistent with the low percentage of neonatal caprine bones reported in figure 3.

Sheep Mandibular Wear:

Figure 10 presents the Grant MWS assessment for the sheep and caprine mandibles from all three AU. The graph makes clear that most of our eruption and wear data comes from AU 3 (fill of T), but the smaller number of intact tooth rows from AU 1 and 2 present a generally similar pattern, though without any of the extremely heavily worn (MWS of 45 and above) present in the AU 3 collection.

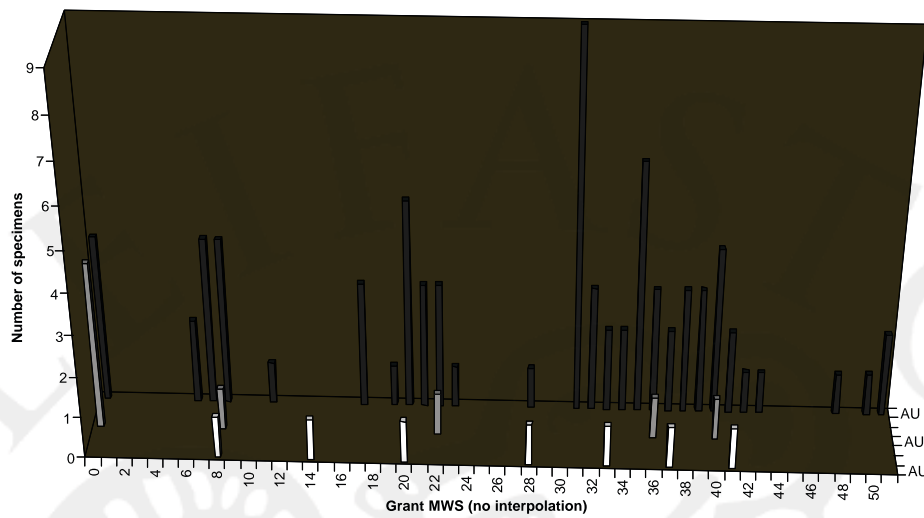


Figure 10.

This pattern of tooth wear again contrasts strongly with that of the cattle, and presents a more complex pattern for interpretation. Figure 11 presents only the AU 3 mandibles and adds conventional age assessments of the wear stages (following Enghoff 2003).

Sveigakot Sheep and Caprine MWS
AU 3 only

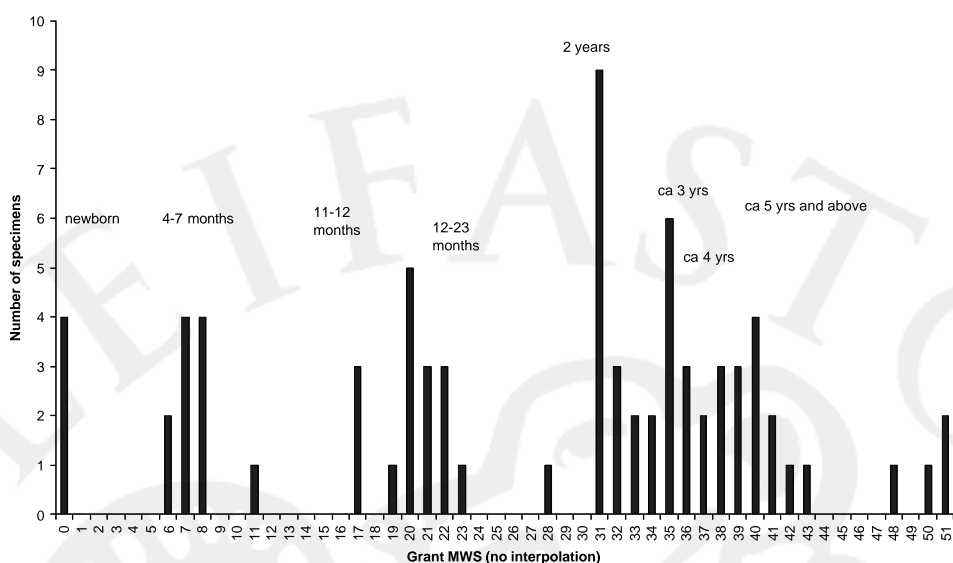


Figure 11

It should be emphasized that the MWS is a measure of tooth wear and not of chronological age, and all age assignments in figure 11 should be regarded as hypotheses for further testing rather than fixed points. Patterns in this figure suggest regular peaks in mortality at 4-7 months (Aug-Nov for May birth), again at 11-12 and 12-23 months (winter old), and at 2-3 years old. The gaps in the mortality patterns in the first two years of life raise issues of seasonality and herd management worth pursuing further. However, perhaps the most striking aspect of the graph is the proportion of animals living beyond three years (often the peak of ewe fertility and milk production). Even if we make allowance for more rapid tooth wear than the standard conversions, there is still an apparent skewing towards adults (including older adults) over young.

Figure 12 presents the wear stages on the sheep and caprine dp4, again provisionally associating the wear stages on this deciduous tooth with age ranges (these may overestimate age if exceptionally rapid wear has taken place). This series allows a focus on the mortality of these sheep from birth (May) through the loss of the dp4 (Feb – March of their 2nd year). Grant wear stage and approximate age correlation is given beneath each bar. The pattern

Sveigakot Sheep and Caprine
dp4 wear (AU 1-3)

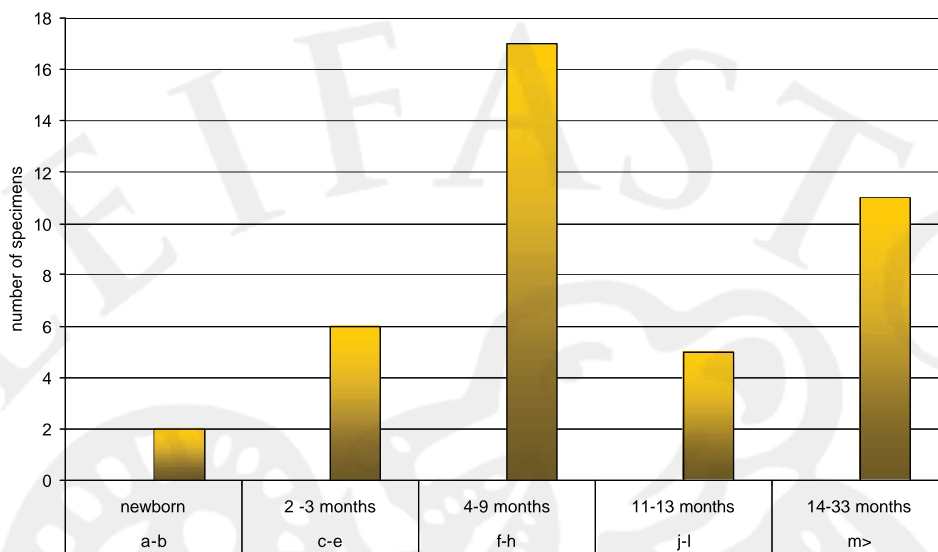


Figure 12

suggests some early mortality in the first summer, a major cull at the beginning of the first winter (Aug-Jan) and another cull near the beginning of the third year.

If we combine this pattern with the spike in mortality in the 2-3 year range of the total MWS (figure 11) , it would appear that a substantial number of sheep were dying in their third year of life (or somewhat before if wear rates are higher than our standard conversions envisage).

Sheep and Caprine Long Bone Fusion

As in the analysis of cattle and pig age profiles, it is useful to compare the patterning in the fusion state of selected long bones. The larger caprine sample size places this type of analysis on much firmer footing. Figure 13 presents the percentage fused elements for distal humerus, tibia, femur, and radius and proximal tibia. As previously, the elements are arranged in

approximate order of fusion in the skeleton. As our tooth eruption and wear data would indicate, most animals survived their first six months, passing the threshold for distal humerus fusion. There is a drop between this waypoint and the 2-3.5 year mark (fusion of distal tibia and femur) and then no discernable change through 4.5 years, with something like 10% of the sample remaining alive past the 5 year point (distal radius fusion). Again we see reasonable agreement between these different types of skeletal and dental aging methods.

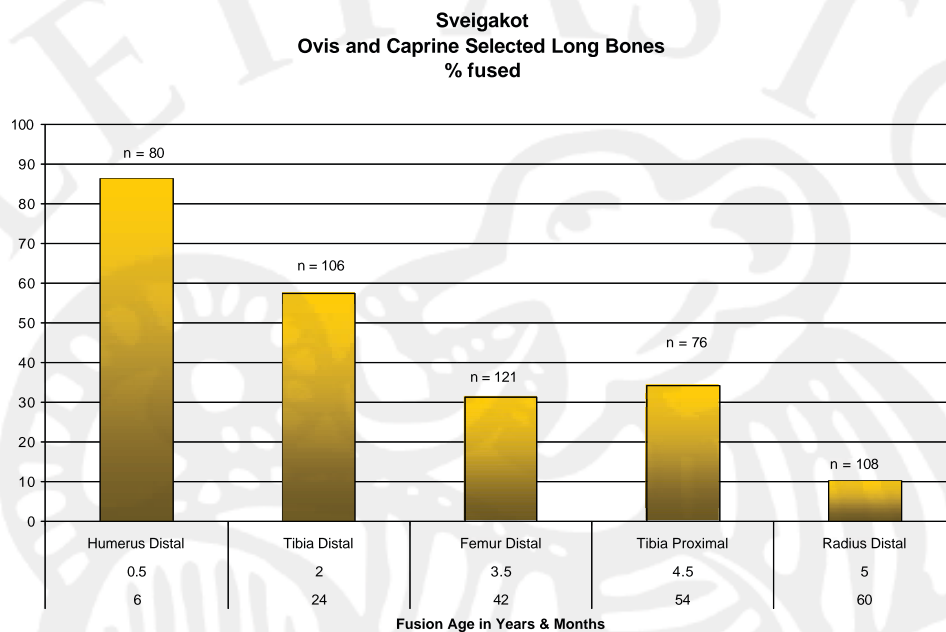


Figure 13

Discussion

The mortality pattern of domestic stock has long been used to reconstruct herding strategy of past farmers, and a considerable literature has developed on this subject (for relevant bibliography see Enghoff 2003). Payne's (1973) models for milk, meat, and wool production strategies have been particularly influential. His model envisages a dairy strategy as having high mortality among very young animals, as milk is reserved for human consumption and many surplus young are produced by a herd high in females who undergo annual pregnancy. An ideal meat producing strategy would see a less dramatic mortality of very young animals, as farmers would wait for the young animals to peak their growth curve as they neared maturity or when the animals became seasonally expensive to maintain (winter feeding).

Adult females would be culled as they ended their reproductive peak in both cases. In a wool producing strategy (restricted to sheep in the Icelandic case), most animals would be retained to adulthood (except for surplus males) and might be allowed to live past their reproductive peak as long as their health and wool production continued.

The current data from Sveigakot indicate that cattle keeping followed Payne's dairy strategy consistently, producing high percentages of neonatal bones and a clear pattern repeated in both dental wear and epiphyseal fusion of many very young and some very old animals but few between. This pattern would seem to support the longstanding assumption that cattle were primarily managed as milk producers in the North Atlantic, confirming this position in the economy of settlement age Iceland. The few pig remains present a less easily interpreted pattern, but the current indication of a range of ages from young to older animals is not inconsistent with Payne's meat strategy, again confirming normal assumptions. The abundant caprine data presents a more complex pattern, and may require some further consideration.

Sheep Herding Strategies: Possible Models

Several authors have discussed the possibility of "dual purpose" herding strategies combining wool, meat, and milk producing patterns. Any self-sustaining farm will be compelled to maintain a good number of fertile females to replace stock, and farmers will certainly eat any animals they cull for any reason, so a "pure" wool producing strategy will seldom be possible. Jón Haukur Ingimundarson (1995) argues strongly that in practice such dual purpose strategies tend to be self defeating and that wool and dairy production in sheep are poorly compatible. Continuously fertile, regularly lactating ewes are poor wool producers (in both volume and quality) compared to barren ewes or castrated male wethers. He quotes both 19th c farming manuals and modern informants who report that wethers continue high wool production into their 6th-7th year while yield from fertile ewes drops drastically after their third or fourth year (Ingimundarson 1995 :69-70). Most ewes reach their peak fertility and milk production by this age, and in either a "classic meat" or "classic dairy" economy they would tend to be culled at this point. Animals much older than 3-4 years are thus unlikely to be fertile ewes, and are far more likely to be old ewes or old wethers. Old wethers (above 2 years old) are expensive animals to maintain in either a meat or dairying economy, but are characteristic of an economy aimed at wool production. The current data from Sveigakot

(dominated by the AU 3 collection of the later phase farm) would thus suggest that sheep at this farm were maintained primarily for wool production (while producing a certain amount of milk and meat as byproduct).

Economic Change at Sveigakot: a speculative reconstruction

While our picture of economic change at Sveigakot is still incomplete and will always be constrained by the limits of archaeological inference, the current domestic mammal collection allows some well founded observations:

- ?? Cattle keeping was always aimed at dairy production, with meat (and skins) from calves a minor byproduct. Cattle numbers seem to decline with time, but their function in the economy seems fairly stable from first settlement onward.
- ?? Pig keeping necessarily focused on meat production, but pigs were small bodied and probably not so carefully herded as cattle. Nevertheless their rapid rate of reproduction and relatively low labor cost made them an attractive source of high quality meat that could be preserved by smoking and may have been given a special social value in feasts. Note that the major difference between the two successive AU's in midden area M and the later AU 3 in the fill of T is the drastic reduction in pig percentage. This drop may reflect many factors, but it entails a significant shift in provisioning strategy at the farm.
- ?? The caprine herd underwent considerable change from AU 1 onwards. Initially balanced between sheep and goats (perhaps at as high as a 2:1 ratio) the balance swung decisively towards sheep by AU 3, and the increased proportion of caprines in this period is in fact an increase in sheep. Again, the reduction in goats reflects a reduction in household provisioning of meat and milk.
- ?? The age profile of the sheep herd (best documented from AU 3) suggests a strategy optimized for wool production rather than dairy production. While some meat was certainly produced as byproduct, it seems very likely that wool production was the main reason for keeping sheep from the beginning of the farm, and that the increase in sheep relative to all other species in the later AU 3 period reflects a strategy aimed at wool production at the expense of food production.

Many questions remain to be addressed on the economy of this important early site, including the changing balance between household provisioning and surplus production of wool (and possibly sheep skins). Further reports on the Sveigakot archaeofauna will examine these questions further, and the comparative examples of nearby sites (especially Hofstaðir) will become increasingly important as research continues in this region.

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Samantekt

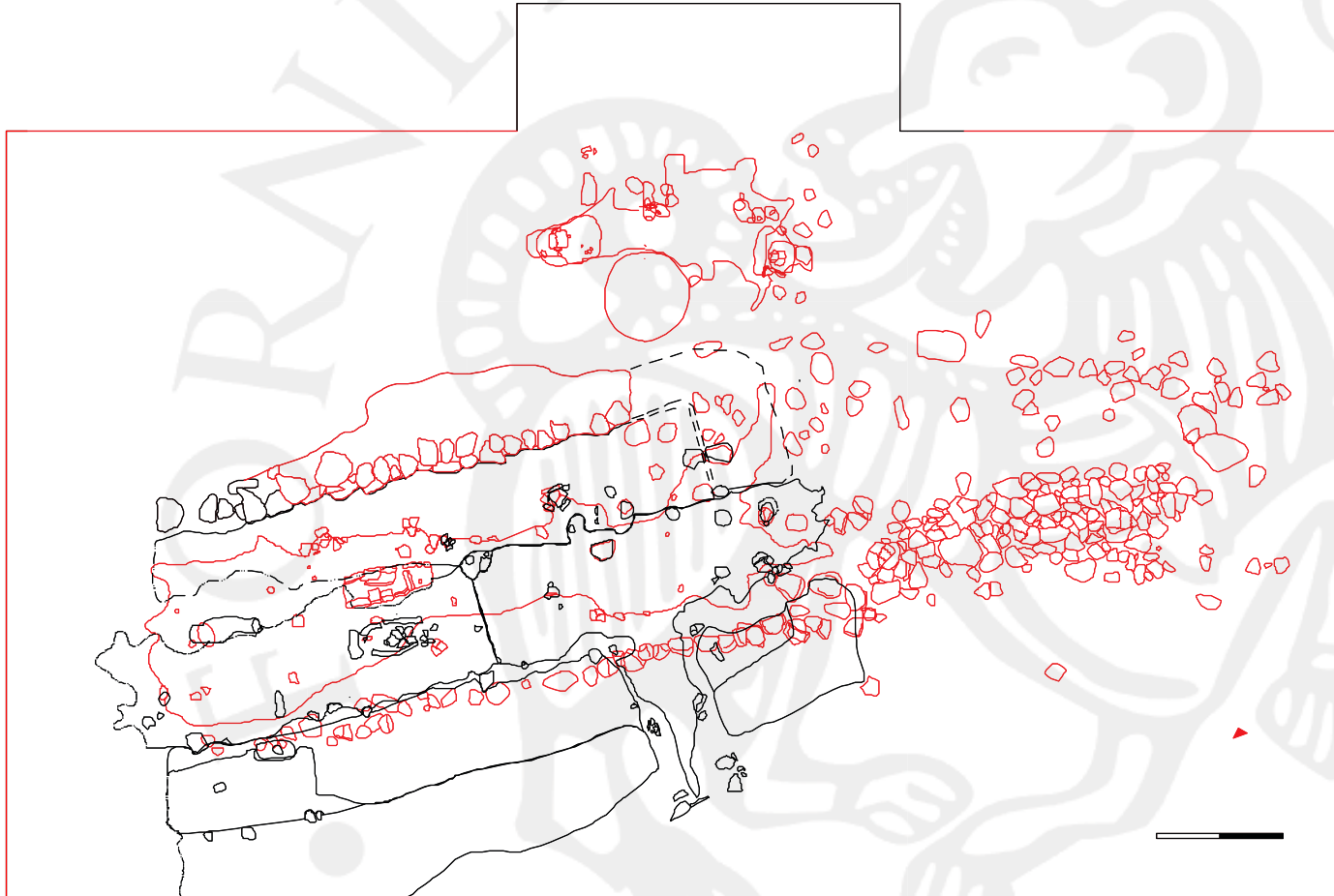
Sumarið 2002 var grafið 22. júlí til 16. ágúst á tveimur svæðum á Sveigakoti:

Á svæði S var lokið uppgrefti á eldri skálabyggingu og viðbyggingum að öðru leyti en því að neðsta gólfög voru ekki tekin upp og býður það næsta árs. Skálinn er rúmlega 20 m langur og um 5 m breiður með bogadregnum langveggjum. Hann er yngri en gjóskulagið V-950, frá því á seinni hluta 10. aldar eða byrjun þeirrar 11. Dyr eru á suðurlangvegg – sem að öllu leyti hefur verið úr torfi – og hefur þar verið gengið inn í íbúðarrýmið. Í því hefur verið langeldur á miðju gólfi og set til beggja hliða. Vesturgafll hússins er skemmdur og sömuleiðis var austurgafllinn illa farinn. Í ljós kom að viðbyggingarnar til austurs (3) og norðurs (5) tilheyra ekki þessu elsta byggingarstigi eins og upphaflega var talið heldur yngra stiginu, mjóa skálanum sem grafinn var upp 2000-2001. Flórinn í eystri viðbyggingunni bendir til að hún hafi verið fjós, en hann hefur verið settur ofan á gólfag í eldra húsi (6) sem eftir á að grafa fram. Í gegnum norðurlangvegg yngri skálans voru dyr inn í litla viðbyggingu (5). Í henni var sáfar sem bendir til að hún hafi upphaflega verið notuð sem búr en síðar voru byggð í henni eldstæði sem benda til að húsinu hafi verið breytt í eldhús. Þessi viðbygging hefur síðan lagst af meðan skálinn var enn í notkun því efst í henni var öskuhaugur.

Ýmsir gripir fundust, mest úr málni, steini og beini, og koma þeir allir heim og saman við túlkun hússins sem íbúðarhúss. Nær allir gripirnir voru í vesturenda hússins, en fáir í búi/eldhúsi eða fjósi.

Á svæði T var lokið við uppgröft á litlu jarðhúsi og öðru eldra og stærra sem lá undan því til suðurs. Eldra húsið var aflangt, rúmlega 6 m á lengd en aðeins 2 m á breidd. Það sást aðeins sem óreglulegur niðurgröftur en tveir inngangar voru greinilegir, annar sunnarlega á austurlanghlið og hinn norðantil á vesturlanghlið. Í botni byggingarinnar voru tvær grunnar en breiðar gryfjur fullar af lífrænum leifum og nokkrar litlar holur hringinn í kr íngum báðar en að öðru leyti var lítið um gólfskán eða önnur ummerki. Sennilega er um að ræða óvandaða byggingu sem notuð hefur verið til að vinna og/eða geyma matvæli.

Engar sambærilegar byggingaleifar hafa áður fundist á Íslandi, enda voru þessi ummerki mjög lítilfjörleg og þess eðlis að eldri uppgraftaraðferðir myndu ekki hafa leitt þau í ljós. Meðal gripa sem komu í ljós í þessari byggingu, eru tveir bútar af bátasaum, og kemur



Uppgrafnar leifar á svæði S. Öll tímabil.

Það nokkuð á óvart í ljósi staðsetningar Sveigakots. Þessi fundur gæti rennt stoðum undir þá tilgátu að Framengjar hafi að hluta verið stöðuvatn á fyrstu öldum Íslandsbyggðar sem síðar fylltist af framburði Krákár.

Svæði það sem byggingaleifar er að finna á milli S og T var afmarkað enn frekar og er ljóst að byggingaleifar er fyrst og fremst að finna fast sunnan við S á svæði sem er um 15 m á lengd frá austri til vesturs og 7 m á breidd frá norðri til suðurs, og fast norðan við T á svæði sem er um 7x7 m að stærð.

Urbanczyk og aðstoðarmenn hans unnu að því sumarið 2002 að þróa nýja aðferð við skráningu uppgraftargagna með styrk frá Sony í Póllandi sem lagði til vélbúnað (stafræna myndavél og fartölvu). Byggður var turn úr stillansaefni og stafrænar myndir teknar af hverri einustu uppgraftareiningu jafnóðum og þær voru grafnar fram. Stafræna myndin var síðan hnitsett jafnóðum og þannig gerð teikning af einingunni á stafrænu formi. Með þessari aðferð er komist hjá því að teikna nokkuð í höndunum og gögnin sem fást eru mun nákvæmari auk þess sem aðferðin reyndist mun fljótlegri heldur en sú hefðbundna eftir að reynsla var komin á hana.

Með áframhaldandi uppgrefti hefur fengist skýrari mynd af byggingaleifum á Sveigakoti þó enn séu ýmis kurl ekki komin til grafar. Uppgrefti á svæði T er lokið og ekki meir en 2-3 daga vinna eftir á svæði S. Sumarið 2003 verður því fyrst og fremst unnið að rannsókn byggingaleifa á svæði N – sem er næst fyrir sunnan S og svæði L sem er næst fyrir norðan T.

Ennþá hafa ekki komið í ljós byggingaleifar sem með vissu er hægt að tengja elsta ábúðarskeiði Sveigakots, þ.e. á 9. og 10. öld, en þá var blómatími bæjarins ef marka má dýrabeinagreiningar. Byggingaleifar þær sem grafnar hafa verið fram eru frá seinni hluta 10. aldar, 11. og 12. öld og er ekki loku fyrir það skotið að búið hafi verið í Sveigakoti fram á 13. öld. Á 11. öld. var eldri skálinn á svæði S yfirgefinn en tóftin síðar notuð sem skýli, hugsanlega sem sel. Seinna á 11. öld eða svo var svo aftur gerð tilraun með búskap á Sveigakoti og var þá yngsti skálinn byggður á rústum hins eldra og skeytt við hana viðbyggingum til austurs og norðurs.

Þær byggingar sem grafnar hafa verið fram á Sveigakoti eru sumar nokkuð frábrugðnar öðrum byggingaleifum sem grafnar hafa verið upp frá sama tímabili. Eldri skálinn á svæði S er mjög dæmigerður fyrir íslensk víkingaaldarhús en sá yngri er aftur á móti af gerð sem ekki hefur sést víða, þó benda megi á skyldar byggingar, t.d. í Herjólfssdal og á Snjáleifartóttum í Þjórsárdal. Þessi gerð, sem einkennist af beinum grjóthlöðnum veggjum og

mun mjórri rýmum (<3 m) en tíðkuðust í víkingaaldrarhúsum, hefur þróast um allt land á 11. og 12. öld og má líta á hana sem “týnda hlekkinn” milli eldaskála víkingaaldar og íslenska torfbæjarins.

Yngra jarðhúsið á svæði T er líka einstakt, bæði hvað varðar stærð, og þá staðreynd að í því eru bekkir og greinilegur inngangur. Ómögulegt er að húsið hafi getað verið vefstofa eins og oft er haldið fram um jarðhús – í því er einfaldlega ekkert pláss fyrir vefstað – og er greinilega um íveruhús af einhverju tagi að ræða. Eldra jarðhúsið er alveg einstakt meðal íslenskra byggingaleifa og mun greining lífrænu leifanna sem í því fundust vonandi varpa ljósi á hlutverk þess.

Allt bendir til að búskapur hafi staðið með blóma á Sveigakoti á 9. og 10. öld en um 1000 fer að halla undir fæti og virðist búskapur þar hafa lagst alveg af um skeið.. Ekki er hægt að rekja hnignun Sveigakots beint til umhverfisþátta, a.m.k. ekki stórfellds uppblásturs því hann hófst ekki á þessu svæði fyrr en eftir 1500. Settar hafa verið fram tilgátur um að hnignun Sveigakots eigi sér félagslegar og pólitískar orsakir og tengist valdasambjöppun í Mývatnssveit á 11. öld – önnur hlið á sama peningi og Hofstaðir eru dæmi um.

Ýmsar aðferðafræðielgar nýjungar hafa verið reyndar á Sveigakoti, einkum hvað varðar greiningu á gólfum. Fyrir utan örformgerðargreiningu sem nú hefur verið reynd með góðum árangri í nokkur ár í fornleifarannsóknum við Mývatn, hefur Karen Milek gert efnagreiningar á gólfefni frá Sveigakoti. Þær niðurstöður sem þegar liggja fyrir benda til að hægt sé að nota þessar aðferðir til að greina hvar skilrúm og veggir voru og til að skilgreina mismunandi vinnusvæði. Þessar rannsóknir eru hluti af doktorsverkefni Karenar við Cambridge háskóla sem hún mun leggja fram til varnar um mitt ár 2003.

Appendices:

Sveigakot 2002: Context List

Context No	Area	Type	Brief Description
859	T	Layer	Dark brown, sandy deposit
860	T	Layer	Grey brown, sandy, with ashes and charcoal
861	T	Structural	Hearth constructed of lava slabs
862	T	Structural	Hearth base?
863	T	Layer	Dark brown, sandy, with fragments of charcoal
864	S	Layer	Organic lens in SE corner of 900/337; not excavated in 2002
865	T	Layer	Deposit behind the hearth stone
866	T	Layer	Grey, black deposit containing charcoal
867	S	Layer	Yellowish turf with black tephra
868	S	Layer	Turf containing greenish-grey tephra
869	S	Layer	Grey aeolian sand
870	S	Layer	Dark brown silt with pinkish-brown organic matter
871	S	Layer	Very firm, light pinkish-brown organic matter
872	T	Layer	Ash layer under hearth 862
873	T	Layer	Floor layer
874	T	Layer	Brown gravelly sand
875	S	Layer	Compact dark brown sandy silt over turf collapse [643]
876	S	Layer	Charcoal-stained sandy lens on S edge of hearth cut [804]
877			Cancelled
878	S	Layer	Red and grey turf collapse E of hearth
879	S	Layer	Sandy silt with 5-10% organic patches, east of pavement in S3
880	S	Layer	Grey sandy silt around stones; east end of S5
881	T	?	Post hole
882	T	?	Post hole
883	T	?	Post hole
884	T	?	Post hole
885	T	?	Post hole
886	T	?	Post hole
887	T	?	Post hole
888	T	?	?
889	T	Layer	Very soft black to brown layer, split into 889a and 889b
890	T	Layer	Layer with brownish-red organic silt
891	T	Layer	Greyish brown sand
892	S	Layer	Reddish organic deposit east of pavement in S3
893	S	Layer	Small turf deposit containing oxidised iron
894	T	Layer	Ash layer from the hearth
895	T	Structural	Stone hearth
896	T	Layer	Dark brown layer
897	T	Layer	Dark brown layer with stones
898	T	Layer	Dark brown layer with pieces of charcoal
899	T	?	Post hole
900	T	?	Post hole
901	S	Layer	Black silt with c. 50% charcoal
902	S	Layer	Turf collapse layer
903	S	Layer	Organic sandy silt; occupation deposit in S4
904	S	Layer	Black silt with c. 50% charcoal, ash and burnt bone

905	S	Layer	Lump of turf north of pavement in S3
906	S	Layer	Lump of turf north of pavement in S3
907	T	Layer	Organic layer
908	T	Layer	Organic layer
909	S	Layer	Small, black, ashy deposit; possibly charred turf
910	S	Layer	Lump of turf north of pavement in S3
911	S	Layer	Windblown sand in S5
912	S	Layer	Turf layer above the floor in S4
913	S	Layer	Small turf layer north of pavement in S3
914	S	Layer	Small turf layer west of pavement in S3
915	T	?	Post hole
916	T	?	Post hole
917	T	?	Post hole
918	T	?	Post hole
919	T	?	Post hole
920	T	?	Post hole
921	T	?	Post hole
922	T	?	Post hole
923	T	?	Post hole
924	T	?	Post hole
925	T	?	Post hole
926	T	?	Post hole
927	T	?	Post hole
928	T	?	Post hole
929	S	Layer	Small deposit of organic black/grey silt on top of S5 floor
930	S	Cut	Shallow post setting containing stones in S4
931	T	Layer	Dark brown sandy layer
932	S	Layer	Mixed turf and soil on top of floor 561
933	T	?	Post hole
934	T	?	Post hole
935	T	?	Post hole
936	S	Layer	Reddish sandy silt
937	S	Fill	Homogenous brown fill of post hole [945] in S5
938	S	Layer	Black charcoal dump on W end of S1/4
939	S	Layer	Orangy turf layer west of pavement [624]
940	S	Fill	Packing around the stones of hearth [796]
941	S	Layer	Small turf layer west of pavement in S3
942	S	Layer	Mixed organic turf and soil on the south edge of floor [561] in S4
943			Cancelled
944			Cancelled
945	S	Cut	Rectangular cut for post hole on the W edge of S5
946	S	Layer	Thick abandonment/collapse layer over floor [561] in S4
947	S	Layer	Small layer of turf collapse
948			Cancelled
949			Cancelled
950	S	Fill	Mixed ash and sand filling the top of cooking pit [954]
951	S	Fill	Ashy fill at the bottom of cooking pit [954]
952	S	Layer	Small lump of turf on the S bench of S4
953	S	Layer	Small lump of turf on the S bench of S4
954	S	Cut	Oval-shaped cut for cooking pit in SE S5
955	S	Layer	Small deposit of turf collapse in the S doorway of S4
956	S	Structural	Stone lining of cooking pit [954]
957	S	Fill	Packing around the stones lining cooking pit [954]
958	S	Fill	Mixed sandy silt and tephra, possibly upcast from cut [954] in S5
959	S	Layer	Very mixed turf with organic matter in S doorway of S4

960	S	Layer	Mixed soil and organic matter on top of the S bench of S4
961	S	Layer	Mixed organic turf and ash in the W end of S4
962	S	Layer	Small deposit of turf on top of floor [561] in S4
963	S	Cut	Narrow oval cut in S5 containing fill [958]
964	S	Layer	Small deposit of turf; lumped with [936]
965	S	Fill	Fill of narrow rectangular cut [968] on W end of S4
966	S	Fill	Fill of post hole [967], at the E end of the rectangular cut [965]
967	S	Cut	Cut of small post hole in S4, filled with [966]
968	S	Cut	Narrow rectangular cut of unknown function, filled with [965]
969	S	Fill	Very mixed fill of large post hole [975] in S bench of S4
970	S	Fill	Fill of possible beam slot [971]
971	S	Cut	Cut of possible beam slot in S4, filled with [970]
972			Cancelled
973	S	Fill	Fill of post hole [977] in S5
974	S	Fill	Fill of small post hole/stake hole [976] in S5
975	S	Cut	Post hole in the S bench of S4, filled with [969]
976	S	Cut	Cut of small post hole/stake hole in S5, filled with [974]
977	S	Cut	Cut of post hole in S5, filled with [973]
978	S	Cut	Cut of post hole in S5, filled with [979]
979	S	Fill	Fill of post hole [978] in S5
980	S	Fill	Fill of post hole [981] in S5
981	S	Cut	Cut of post hole in S5, filled with [980]
982	S	Layer	Mixed organic soil layer in SE corner of S4
983	S	Layer	Small deposit of mixed/disturbed turf in N part of S4
984	S	Layer	Small deposit of sandy turf in a depression in the SE corner of S4
985	S	Fill	Fill of post hole [992] in S3
986	S	Layer	Small occupation deposit in S5
987	S	Layer	Small organic deposit in the north of S1/4
988	S	Layer	Layer of mixed upcast; later resolved into a series of post holes in S5
989	S	Layer	Sandy occupation deposit in the S doorway of S4
990	S	Layer	Small deposit of mixed turf on the N bench of S4
991	S	Layer	Small deposit of mixed turf on the N bench of S4
992	S	Cut	Cut of post hole in S3, filled with [985]
993	S	Cut	Cut of post hole in S5, filled with [994]
994	S	Fill	Fill of post hole [993] in S5
995	S	Fill	Fill of small depression/ post impression [998] in S3
996	S	Fill	Fill of post hole [997] in S5
997	S	Cut	Cut of post hole in S5, filled with [996]
998	S	Cut	Cut/depression in S3 filled with [995]
999	S	Fill	Fill of post hole [1003] in S4
1000	S	Cut	Cut of post hole in S5, filled with [1001]
1001	S	Fill	Fill of post hole [1000] in S5
1002	S	Layer	Small sandy deposit in S3
1003	S	Cut	Cut for post hole in S4, filled with [999]
1004	S	Fill	Fill of post pipe [1011] in S4
1005	S	Structural	Square stone setting in S doorway of S4
1006	S	Layer	Small, thin deposit up against the N bench of S4
1007	S	Cut	Cut for hearth [1009] on W side of S5
1008	S	Layer	Small charcoal-stained layer in depression in SE corner of S4
1009	S	Structural	Flat lava stone base of a hearth on W side of S5
1010	S	Fill	Fill of post hole [1012] in S4
1011	S	Cut	Cut of post pipe in post hole [1003] in S4, filled with [1004]
1012	S	Cut	Cut of post hole in S4, filled with [1010]
1013	S	Fill	Fill of post hole [1014] in S5

1014	S	Cut	Cut of post hole in S5, filled with [1013]
1015	S	Structural	Southern turf wall of S4
1016	S	Fill	Fill of post hole [1017] in S5
1017	S	Cut	Cut of post hole in S5, filled with [1016]
1018	S	Fill	Fill of post hole 1019 in S5
1019	S	Cut	Cut of post hole in S5, filled with [1018]
1020			Cancelled
1021	S	Layer	Ashy fill of hearth [1022] in S6; only partially excavated in 2003
1022	S	Structural	Flat lava stone base of a hearth on S side of S6; not excavated
1023	S	Fill	Fills of stake holes in S5; not excavated in 2003
1024	S	Fill	Fill of post hole [1025] in S5
1025	S	Cut	Post hole in S5, filled with [1024]

Sveigakot 2002: Finds List

Object No	Area	Context	Material	Description
1	T	800	Stone	Spindle whorl; red sandstone
2	T	800	Bone	Worked whale bone; possible fragment of a smoothing board
3	S	686	Iron	Unidentifiable iron object
4	S	686	Iron slag	38 pieces of slag
5	S	686	Stone	Fire cracked rock; basalt
6	T	782	Iron	Fragments of a broken nail
7	S	686	Iron	Unidentifiable iron object
8	T	863	Iron	Nail head
9	T	866	Iron	Knife
10	T	866	Iron	Possible nail
11	T	890	Iron	Nail
12	S	549	Iron	Nail
13	S	549	Iron	Possible nail fragment
14	S	549	Stone	Fire cracked stone
15	T	894	Iron	Boat nail
16	T	894	Iron	Boat nail
17	S	903	Iron	Unidentifiable iron object
18	T	744	Iron	Nail fragments
19	T	744	Iron	Hook
20	T	896	Iron	Nail head
21	T	896	Stone	Flint
22	S	797	Iron	Nail
23	S	940	Stone	Worked stone; red sandstone
24	S	940	Stone	Calcite pebble
25	S	854	Stone	Calcite pebble; appears to be worked
26	S	854	Iron	Possible nail (no location)
27	S	854	Iron	Possible nail; x901.5/y347.5 (no elevation)
28	S	946	Iron slag	Slag
29	S	946	Iron	Rivet
30	S	946	Iron	Nail
31	S	946	Stone	Spindle whorl; red sandstone
32	S	561	Copper	Flat copper object; x898.12/y341.6/z284.77
33	S	561	Copper	Small loop; x892/y339.8/z284.51
34	S	964	Iron	Nail
35	S	561	Iron	Flat iron object; x895.45/y340.5/z284.55
36	S	561	Iron	Nail; x892.46/y340.65/z284.55

37	S	561	Stone	Steatite fragment; x892.76/y340.75/z284.555
38	S	985	Iron slag	Slag
39	S	989	Iron slag	1 large piece of slag; x990.9/y338.9/z284.94
40	S	989	Iron	Nail; x991.11/y338.7/z284.94
41	S	989	Iron slag	1 small piece of slag; x990.94/y338.8/z284.93
42	S	989	Iron	Iron object (from sieve); x990.9/y339
43	S	561	Stone	Whetstone; x896.7/y342.1/z284.64
44	S	561	Iron	Unidentified iron object (no location)
45	S	1021	Iron slag	1 small piece of slag
46	S	989	Stone	Assorted basalt and lava pebbles deposited just within south entrance of Structure 5
47	S	982	Stone	Assorted basalt and lava pebbles deposited just within south entrance of Structure 5
48	S	n/a	Stone	Spindle whorl fragment (half); red sandstone; found while cleaning; not possible to attribute to a context, but should be attributed to the phase of midden dumping in Structure 5
49	S	561	Stone	Flint flake; x902.35/y343/z284.98

Sveigakot 2002: Sample List

Sample	Area	Context	Grid	Quantity	Sample Type	X	Y
1	S	686	905/337	1 bag	Wood		
2	T	782		1 bucket (20 L)	Flotation; ash from hearth		
3	S	686	900/337	1 bag	Wood		
4	S	686	900/337	1 bag	Wood		
5	S	686	900/337	1 bag	Wood		
6	S	686	900/337	1 bag	Wood		
7	S	686	900/337	1 bag	Wood		
8	S	686	900/337	1 bag	Wood		
9	S	686	900/337	1 bag	Wood		
10	S	686	900/337	1 bag	Charcoal		
11	S	686	900/337	1 bag	Wood		
12	S	686	900/337	1 bag	Wood		
13	S	686	900/337	1 bag	Wood		
14	S	686	900/337	1 bag	Wood		
15	S	686	900/337	1 bag	Wood		
16	S	686	900/337	1 bag	Wood		
17	S	633	900/337	1 bag	Wood		
18	S	633	900/337	1 bag	Wood		
19	T	872	893/306	1 bucket (20 L)	Flotation; ash from hearth		
20	S	875	890-895/337	1 bag	Charcoal		
21	T	884	894/305	1 bag	Charcoal and wood		
22	T	881	893/307	1 bag	Charcoal		
23	S	878	900/337	1 bag	Wood		
24	S	878	900/337	1 bag	Charcoal		
25	S	879	905/343	1 bag	Soil chemistry		
26	S	892	905/343	1 bag	Soil chemistry		
27	S	880	900/349	1 bag	Charcoal		
28	S	901	900/349	1 bag	Charcoal		
29	T	894	893-895/305	1 bucket (20 L)	Flotation; ash and charcoal		
30	S	903	900/337	1 bag	Soil chemistry	901	343
31	S	903	900/337	1 bag	Soil chemistry	901.5	343

32	S	903	900/337	1 bag	Charcoal		
33	S	902	895/337	1 bag	Charcoal		
34	S	904	898/349	1 bag	Charcoal		
35	T	907	894/304	1 bag	Soil chemistry; reddish brown organic matter		
36	T	908	894/301	1 bag	Soil chemistry; reddish brown organic matter		
37	S	906	905/343	1 bag	Charcoal		
38	S	901	900/343-349	1 bag	Charcoal		
39	S	914	900/337	1 bag	Charcoal		
40	S	839	890/337	1 bag	Soil chemistry	892	341
41	S	839	890/337	1 bag	Soil chemistry	892.5	341
42	S	839	890/337	1 bag	Soil chemistry	892.5	340.5
43	S	839	890/337	1 bag	Soil chemistry	892.5	341.5
44	S	839	890/337	1 bucket (20 L)	Flotation	892.5	340.5
45	S	839	890/337	1 bucket (20 L)	Flotation	892.5	341.5
46	S	839	890/337	1 bag	Charcoal; sieved 892.5/340.5		
47	S	839	890/337	1 bag	Charcoal; sieved 892.5/341.5		
48	S	797	895/337	2 buckets (40 L)	Flotation; grey ash from hearth		
49	S	797	895/337	1 bag	Charcoal; retrieved from sieve		
50	S	938	890/337	1/2 bucket (10 L)	Flotation; ash and charcoal		
51					Cancelled		
52	S	854	900/343	1 bag	Soil chemistry	900.5	347
53	S	854	900/343	1 bag	Soil chemistry	900.5	348.5
54	S	854	900/343	1 bag	Soil chemistry	901	347
55	S	854	900/343	1 bag	Soil chemistry	901.5	348.5
56	S	854	900/343	1 bag	Soil chemistry	901.5	348
57	S	854	900/343	1 bag	Soil chemistry	902	347.5
58	S	854	900/343	1 bag	Soil chemistry	901	348
59	S	854	900/343	1 bag	Soil chemistry	900.5	347.5
60	S	854	900/343	1 bag	Soil chemistry	901.5	347.5
61	S	854	900/343	1 bag	Soil chemistry	902	347
62	S	854	900/343	1 bag	Soil chemistry	900.5	348
63	S	854	900/343	1 bag	Soil chemistry	901.5	347
64	S	854	900/343	1 bag	Soil chemistry	901	347.5
65	S	854	895/343	1 bag	Soil chemistry	899.5	347.5
66	S	854	895/343	1 bag	Soil chemistry	898.5	347.5
67	S	854	895/343	1 bag	Soil chemistry	899	347.5
68	S	854	895/343	1 bag	Soil chemistry	899.5	348
69	S	854	900/343	1 bag	Soil chemistry	900	347.5
70	S	854	900/343	1 bucket (20 L)	Flotation; floor sediment	900.5	347.5
71	S	854	900/343	1 bucket (20 L)	Flotation; floor sediment	901.5	348.5
72	S	854	900/343	1 bag	Flotation; floor sediment	900.5	347.5
73	S	940	895/337	2 buckets (40 L)	Flotation; ash from hearth		
74	S	854	895/343	1 bucket (20 L)	Flotation; floor sediment	899.5	347.5
75	S	854	900/343	1 bucket (20 L)	Flotation; floor sediment	901.5	347.5
76	S	939	900/337	1 bag	Charcoal		
77	S	854	900/343	1 bucket (20 L)	Flotation; floor sediment	901.5	347.5
78	S	854	895/343	1 bucket (20 L)	Flotation; floor sediment	898.5	347.5
79	S	854	895/343	1 bag	Charcoal	899.5	347.5

80	S	944	895/343	1 bucket (20 L)	Flotation; ash from hearth		
81	S	944	895/343	1 bucket (20 L)	Flotation; ash from hearth		
82	S	944	895/343	1 bucket (20 L)	Flotation; ash from hearth		
83	S	944	895/343	1 bucket (20 L)	Flotation; ash from hearth		
84	S	854	895/343	1 bag	Flotation; floor sediment	899.5	347.5
85	S	941	900/337	1 bag	Charcoal		
86	S	947	900/337	1 bag	Charcoal		
87	S	946	890/337	1 bag	Wood		
88	S	946	890/337	1 bag	Charcoal		
89	S	950	900/343	1 bucket (20 L)	Flotation; ash from hearth		
90	T	889a	896/306	1 bag	Charcoal		
91	T	889b	859/304	1 bag	Charcoal		
92	T	873	892/306	1 bag	Charcoal		
93	T	782	893/307	1 bag	Charcoal		
94	T	860	895/307	1 bag	Charcoal		
95	T	782	895/307	1 bag	Charcoal		
96	T	859	895/307	1 bag	Charcoal		
97	T	894	893-5/304-5	1 bag	Charcoal		
98	S	951	900/343	1/2 bucket (10 L)	Flotation; ash from hearth		
99	S	955	900/337	1 bag	Charcoal		
100	S	854	900/343	1 bag	Flotation; floor sediment	901.5	348.5
101	S	854	900/343	1 bag?	Flotation; floor sediment	900.5	348.5
102	S	959	900/337	1 bag	Charcoal		
103	S	561	890/337	1 bag	Wood	893.1	325
104	S	966	890/337	1/2 bucket (10 L)	Flotation; fill of post hole		
105	S	966	890/337	1 bag	Wood; from post hole		
106	S	958	900/343	1 bag	Charcoal		
107	T	800	893/308	1 bag	Charcoal		
108	S	969	890/337	1 bucket (20 L)	Flotation; fill of post hole		
109	S	979	900/343	1 bag	Flotation; fill of post hole		
110					Cancelled		
111	S	983	895/337	1 bag	Soil chemistry	899	342.5
112	S	982	900/337	1 bag	Charcoal		
113					Cancelled		
114	S	980	900/343	1 bucket (20 L)	Flotation; fill of post hole		
115	S	985	905/337	1 bag	Charcoal		
116	S	985	905/337	1/2 bucket (10 L)	Flotation; fill of post hole		
117	S	994	90/343	1/2 bucket (10 L)	Flotation; fill of post hole [993]		
118	S	996	900/343	1/2 bucket (10 L)	Flotation; fill of post hole [997]		
119	S	1001	900/343	1/2 bucket (10 L)	Flotation; fill of post hole [1000]		
120	S	999	895/337	1 bucket (20 L)	Flotation; fill of post hole [1003]		
121	S	989	900/337	1 bag	Soil chemistry	900.5	338.5
122	S	989	900/337	1 bag	Soil chemistry	900.5	339.5
123	S	989	900/337	1 bag	Soil chemistry	900.5	340
124	S	989	900/337	1 bag	Soil chemistry	900.5	340.5
125	S	989	900/337	1 bag	Soil chemistry	901	339.5
126	S	989	900/337	1 bag	Soil chemistry	901	339
127	S	989	900/337	1 bag	Soil chemistry	900.5	339
128	S	989	900/337	1 bag	Wood	900.8	338.5
129	S	989	900/337	1 bag	Charcoal	900.9	339
130	S	989	900/337	1 bucket (20 L)	Flotation; floor sediment	900.9	339

131	S	989	900/337	1 bucket (20 L)	Flotation; floor sediment	900.6	339.6
132	S	989	900/337	1/2 bucket (10 L)	Flotation; floor sediment	900.3	340.5
133	S	1002	905/337	1 bag	Charcoal		
134	S	989	900/337	1 bag	Charcoal	900.6	339.6
135					Cancelled		
136	S	1004	895/337	1 bag	Flotation; fill of post hole		
137	T	863	892/305	1 bag	Charcoal		
138	S	1010	900/337	1/2 bucket (10 L)	Flotation; fill of post hole		
139	S	1013	900/343	1/2 bucket (10 L)	Flotation; fill of post hole		
140	S	1016	900/343	1/2 bucket (10 L)	Flotation; fill of post hole		
141	S	973	900/343	1 bucket (20 L)	Flotation; fill of post hole		
142	S	979	900/343	1 bag	Flotation; fill of post hole		
143	S	847	905/343	1 bag	Soil chemistry	905.5	344
144	S	847	905/343	1 bag	Soil chemistry	906	344
145	S	1018	900/343	1 bag	Flotation; fill of post hole		
146	S	847	905/343	1 bag	Soil chemistry	906	344.5
147	S	847	905/343	1 bag	Soil chemistry	906.5	344
148	S	847	905/343	1 bag	Soil chemistry	906.5	344.5
149	S	847	905/343	1 bag	Soil chemistry	907	344
150	S	847	905/343	1 bag	Soil chemistry	907	344.5
151	S	847	905/343	1 bag	Soil chemistry	907.5	344
152	S	847	905/343	1 bag	Soil chemistry	907.5	344.5
153	S	847	905/343	1 bag	Soil chemistry	908	343.5
154	S	847	905/343	1 bag	Soil chemistry	908	344
155	S	847	905/343	1 bag	Soil chemistry	908	344.5
156	S	847	905/343	1 bag	Soil chemistry	908.5	343
157	S	847	905/343	1 bag	Soil chemistry	908.5	343.5
158	S	847	905/343	1 bag	Soil chemistry	908.5	344
159	S	847	905/343	1 bag	Soil chemistry	908.5	344.5
160	S	847	905/343	1 bag	Soil chemistry	909	343.5
161	S	847	905/343	1 bag	Soil chemistry	909	344.5
162	S	847	905/343	1 bag	Soil chemistry	909.5	343.5
163	S	847	905/343	1 bag	Soil chemistry	909.5	344
164	S	847	910/343	1 bag	Soil chemistry	910	343.5
165	S	847	910/343	1 bag	Soil chemistry	910.5	343
166	S	847	910/343	1 bag	Soil chemistry	910.5	343.5
167	S	847	900/337	1 bag	Soil chemistry	903.2	342.66
168	S	847	900/337	1 bag	Soil chemistry	903.3	342.9
169	S	847	900/343	1 bag	Soil chemistry	904	343
170	S	847	900/343	1 bag	Soil chemistry	904.6	343.5
171	S	1021	905/337	1 bag	Soil chemistry	905	342
172	S	847	905/337	1 bag	Soil chemistry	909.8	342.5
173	S	854	900/343	1 tin	Micromorphology		
174	S	854	900/343	1 tin	Micromorphology		
175	T	874	894/305	1 bag	Charcoal		
176	S	1021	900-905/337	2 buckets (40 L)	Flotation; ash from hearth		
177					Cancelled		
178	S	847	905/343	1 bucket (20 L)	Flotation; floor sediment	909.5	343.9
179	S	847	910/343	1 bucket (20 L)	Flotation; floor sediment	910.2	343.1
180	S	847	910/337	1 bag	Soil chemistry	910	342.88

Sveigakot 2002: Bone List

Sample No	Area	Context	Grid Location	Quantity	Details (if applicable)
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1	T	800	893/308	1 bag	
2	T	782	893/307	1 bag	Bag 1 of 2
3	S	686	890/337 (general)	1 bag	Bone fragments
4	T	782	895/307	1 bag	
5	T	782	893/307	1 bag	Bag 2 of 2
6	T	859	895/307	1 bag	
7	T	860	895/307	1 bag	Many bone fragments
8	T	863	892/305	1 bag	Bone fragments
9	T	865	892/305	1 bag	Bone fragments
10	T	866	892/305	1 bag	
11	T	873	892/306	1 bag	Bone fragments
12	T	785	895/306	1 bag	Bone fragments
13	T	874	892/305	1 bag	Bone fragments
14	T	881	893/306	1 bag	Bone fragments (1 of 2)
15	T	882	894/306	1 bag	Bone fragments
16	T	883	895/305	1 bag	Bone fragments
17	T	888	892/305	1 bag	Bone fragments
18	S	878	900/337 (general)	1 bag	Bones, including fish (articulated)
19	T	712	892-895/305	1 bag	Bone fragments
20	T	881	893/306	1 bag	Bone fragments from post hole (2 of 2)
21	T	890	893-895/305	1 bag	Bone fragments
22	S	549	900/349 (general)	1 bag	Bone and tooth fragments
23	T	891	892-893/305	1 bag	Bone fragments
24	T	894	892-895/304-305	1 bag	Bone fragments
25	T	896	893-894/304-305	1 bag	Bone fragments
26	S	903	905/337 (general)	1 bag	1 bone
27	T	744	893/301	1 bag	Bone fragments
28	S	902	895/337 (general)	1 bag	
29	S	904	895/349 (general)	1 bag	Burnt bone fragments
30	T	907	893/304	1 bag	Bones from hearth
31	S	901/880	900/349 (general)	1 bag	Tooth from context 880 or 901 (uncertain)
32	T	889b	895/304	1 bag	
33	T	898	892/307	1 bag	
34	T	889a	896/304	1 bag	
35	T	927	894/304	1 bag	
36	T	897	893/301	1 bag	2 bones and 1 tooth
37	S	839	890/337 (general)	1 bag	
38	S	936	890/337 (general)	1 bag	
39	S	797	895/337 (general)	1 bag	Calcined bones from hearth ash
40	T	931	892/308	1 bag	
41	S	939	900/337 (general)	1 bag	
42	S	854	895/343 (general)	1 bag	
43	S	854	895/343 (general)	1 bag	Sampling Square: 899.5/347.5
44	S	941	900/337 (general)	1 bag	
45	S	950	900/343 (general)	1 bag	Bones from hearth
46	S	946	890/337 (general)	1 bag	
47	S	854	900/343 (general)	1 bag	Sampling Square: 900.5/348.5
48	S	854	900/343 (general)	1 bag	Sampling Square: 901.5/348.5
49	S	854	900/343 (general)	1 bag	Sampling Square: 900.5/347.5
50	S	854	900/343 (general)	1 bag	Sampling Square: 901.5/347.5
51	S	561	890/337 (general)	1 bag	
52	S	958	900/343 (general)	1 bag	Small pieces of calcined bone

53	S	974	900/343 (general)	1 bag	Bone from the stake hole
54	S	983	895/337 (general)	1 bag	
55	S	989	900/337 (general)	1 bag	Sampling Square: 900.6/339.6
56	S	989	900/337 (general)	1 bag	Sampling Square: 900.3/340.5
57	S	1006	900/337-343 (general)	1 bag	

