# Archaeological investigations at Sveigakot 2003

*Orri Vésteinsson ed.*

**With contributions from Colleen E. Batey, Guðrún Alda Gísladóttir and Przemysław Urbańczyk**

Fornleifastofnun Íslands

FS242-00214

Reykjavík 2004

Fig. on front page: Guðrún Alda Gísladóttir and Stefán Ólafsson sampling floor layer [561] in Structure 4

## *Contents*

Orri Vésteinsson

# *Introduction*

The 2003 season was the fifth consecutive summer of excavations at Sveigakot in Mývatnssveit, NE Iceland, and the fourth season of structural investigations at the site. As in the previous year excavations concentrated on the opposite ends of the site, the southern end with sunken featured buildings, designated T and MT, and the northern end with a small *skáli*, designated S. This year two smaller areas were opened up. One is at the SW corner of S and was called N when a test trench was placed there in 2000. Between S and MT a test trench in 2002 had revealed occupational deposits and a new area, called P, was opened here towards the end of the excavation season (Fig. 1).

In area MT a new structure was identified, connected to the sunken featured building already exposed there in the 2001-2002 seasons. The new structure is considerably larger than the previously investigated building and seems to have been a dwelling also. A hearth has been exposed in the centre of the new building but floor layers have not yet been reached and this structure remains to be fully excavated in the 2004 season. In area S a large part of this season's work was spent on excavating the floor in the earlier skáli. Using the same strategy as applied on the floor of the later skáli when this was excavated in 2001, this floor was 100% sampled on a 50 cm grid, producing a veritable mountain of soil samples. These samples were subsequently processed in Reykjavík but they remain to be analysed. The same holds for chemical and micromorphological samples taken from the floor and other surface deposits in area S. The present report therefore contains only a description of the principal findings of the excavation, but full analysis will be presented in the final report. Underneath the floor layer of the earlier skáli a number of negative features, including postholes and an earlier hearth, were investigated, attesting to the long and complex history of this building. A series of deposits east of the skáli was also investigated. It remains doubtful if these are the remains of a building or buildings, possibly attached to the skáli, or if this was an activity area adjacent to the skáli. In this area a number of deposits and a hearth predating the skáli and the V~950 tephra

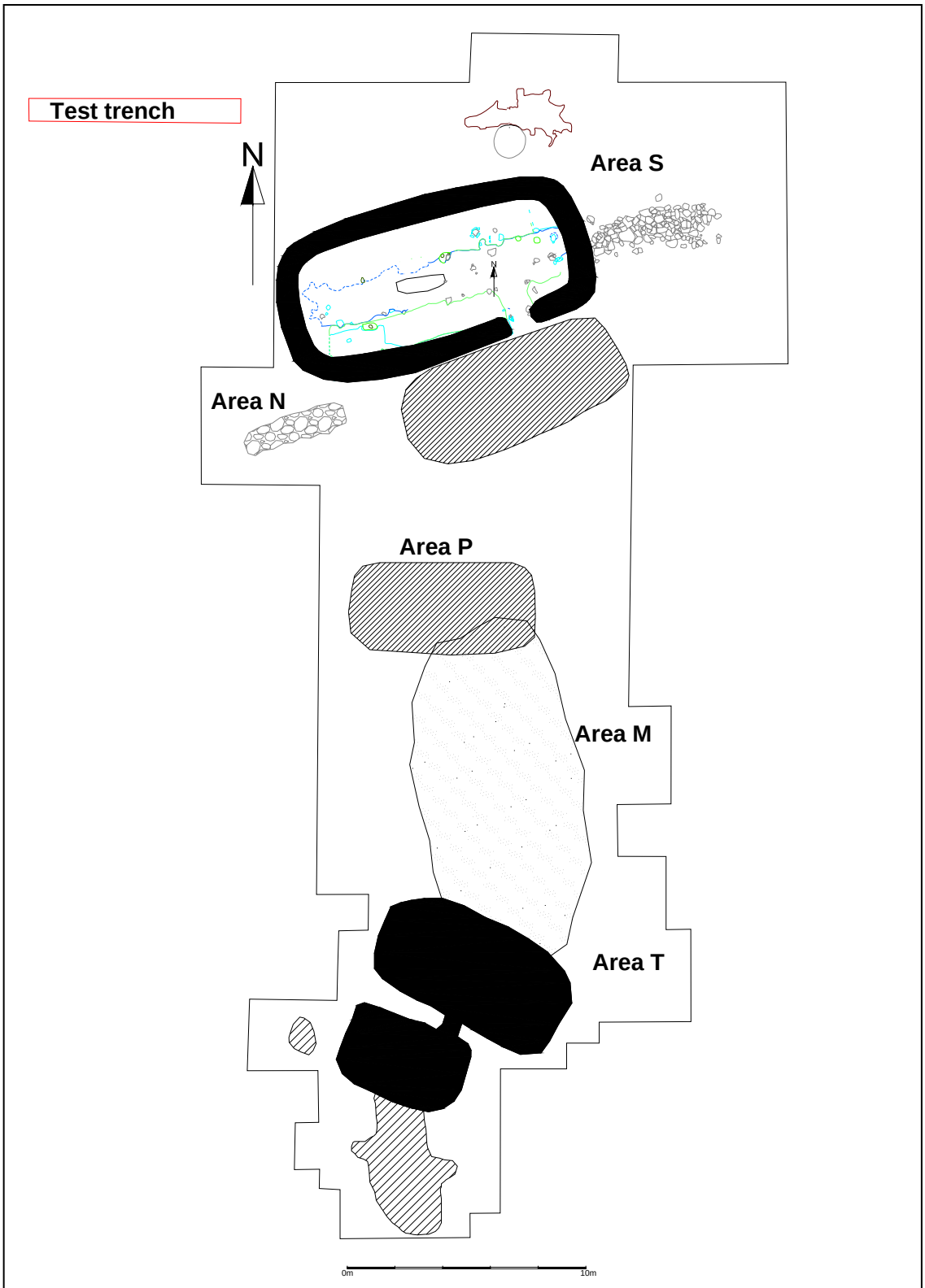


*Fig. 1.* Sketch plan of principal structures and excavation areas at Sveigakot

were investigated. None of these are structural however. Also predating the *skáli* is a sunken feature, presumably a building, immediately south of the *skáli*. Only the northeastern corner of this feature was exposed and its size and shape as shown on Fig. 1 is entirely conjectural. The same holds for the sunken feature partly exposed in

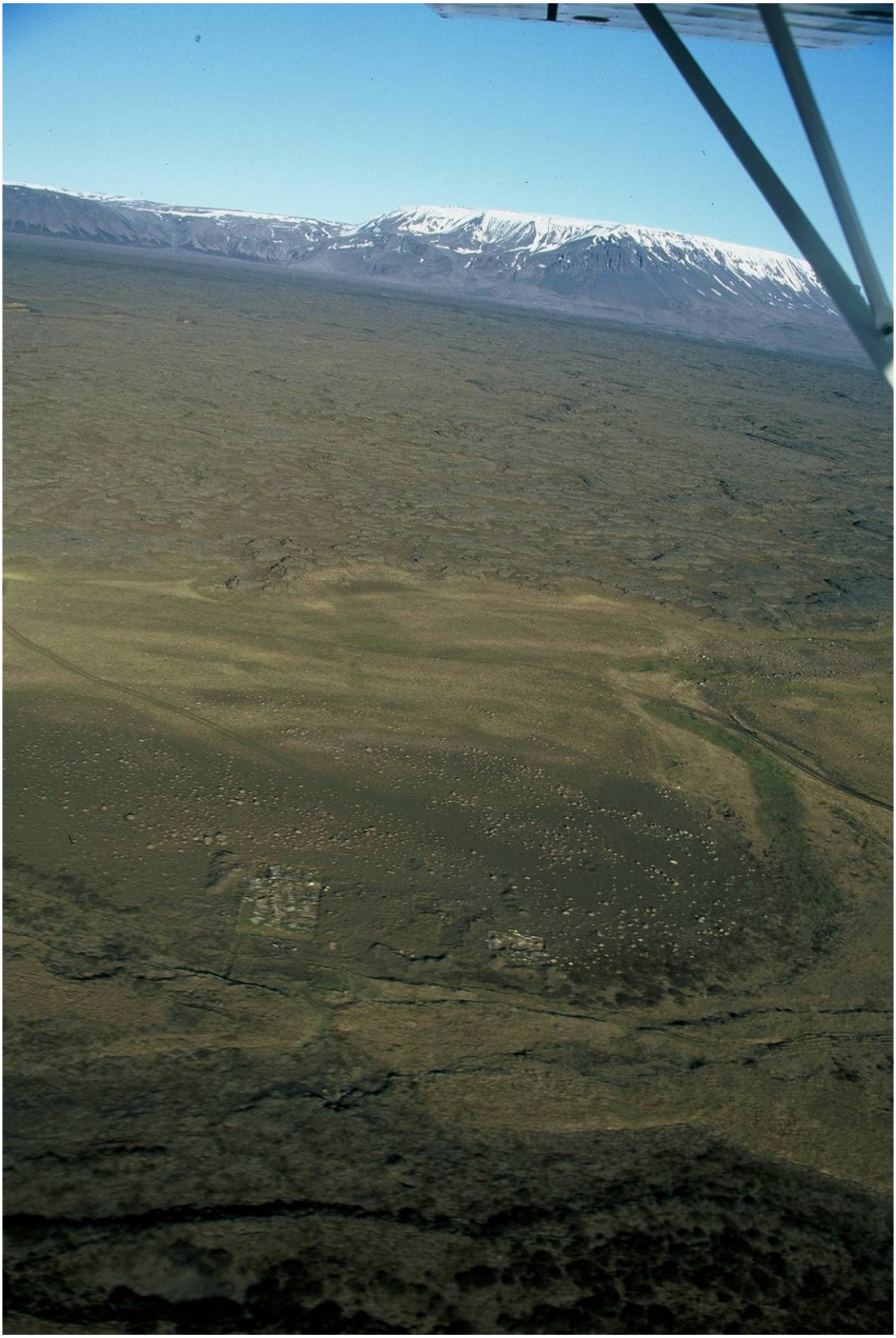

*Fig. 2. Sveigakot from the air, looking east. Photo by Árni Einarsson, May 23rd 2003.*

area P. Here a larger section of a northwest corner was described but the full extent of the feature remains to be investigated. This feature is capped by midden deposits

from area M. Judging by that it probably belongs to the earlier phase of occupation at the site. In area N a pavement set into the slope, almost as a ramp, was excavated. The depression the pavement was sat in had been filled with a series of aeolian and anthropogenic deposits. The earliest of these extends under the southern wall of the earlier *skáli*, showing that the pavement predates the *skáli*, and may be associated with the earlier building at its southern side.

Sveigakot continues to be full of surprises. What was initially intended as a 1-2 season investigation into what were thought to be insubstantial and badly damaged remains has turned out to one of the longer running excavations of Viking age farmsteads in Iceland. As the the project enters its sixth year of fieldwork the end is still not in sight. With two further buildings as good as un-excavated and one half-excavated it is probable that at least two more seasons will be needed before the site is fully investigated.

The excavation started on July 14th and continued for 5 weeks until August 15th. As before the project was managed by Orri Vésteinsson, who this year also supervised the excavation in areas S, N and P. He was assisted by graduate students Guðrún Alda Gísladóttir (FSÍ/HÍ), Johan-Terje Hole (Tromsø), Matthew Brown (CUNY) and Mogens Høegsberg (Århus) and undergraduate students Ramona Harrisson (CUNY), Stefán Ólafsson (HÍ) and Hrönn Konráðsdóttir (HÍ). The excavation of areas T and MT was supervised by professor Przemysław Urbańczyk (Polish Academy of Sciences), assisted by graduate students Robert Zukowski and Magdalena Natuniewicz-Sekuta.

Initial data entry was done by Ramona Harrison, Stefán Ólafsson and Orri Vésteinsson but the digitisation of drawings and the bulk of the post excavation work for areas S, N and P was carried out by Guðrún Alda Gísladóttir. Dr. Colleen E. Batey was the project finds manager.

The project was supported by grants from Rannís and the NSF. This support is gratefully acknowledged as well as the loan by the Mývatn Research Station of a total station.

# The *skáli* and associated structures. Areas S, N and P

## *Structure 4*

**Fig. 1.** *Sampling of the floor. Facing southeast.*

The main floor deposit of Structure 4 [context 561] had been fully exposed in 2002, and was ready to be sampled and excavated in 2003.

The floor layer [561] was darkgrey, charcoal rich, sandy and dry. Sandwiched between the floor layer proper and the natural, was a light red-brownish sandy lens interpreted as the base for the floor. This lighter coloured part of the floor was "clean" in that there were no traces of charcoal, bones etc. It was very thin – in many places not traceable at all – and was primarily evident in the eastern end of the building and in the doorway. It looks like this lower part of the floorlayer had been intentionally laid down in order to create a level surface inside the cut which had been made to demarkate the central aisle of the building. The cut extends right along the whole length of the building even though its main purpose seems to have been to define the edge of benches in the western and middle portion of the house. The floorlayer [561] was homogenous except in the vicinity of the hearth [1068] where evidence for earlier activity was found under the floor. Around the hearth the floor layer [561] contained lenses of black and dark grey ash and brown silt.

The boundaries of the floor were sharp at the edges of the benches but gradual in eastern and western ends of the building. A tounge of the floor layer extended sothwards in the eastern end, indicating a doorway. The greatest length of the floor is 10,8 m but it is truncated on the western end along with the rest of the house, and will have extended further west originally. Between the benches the floor is 1,90-2,10 m wide but east of the doorway it narrows to 1,50 m and in the far eastern end of the building it is only 1 m wide. The floor layer was thickest east of the hearth [1068],

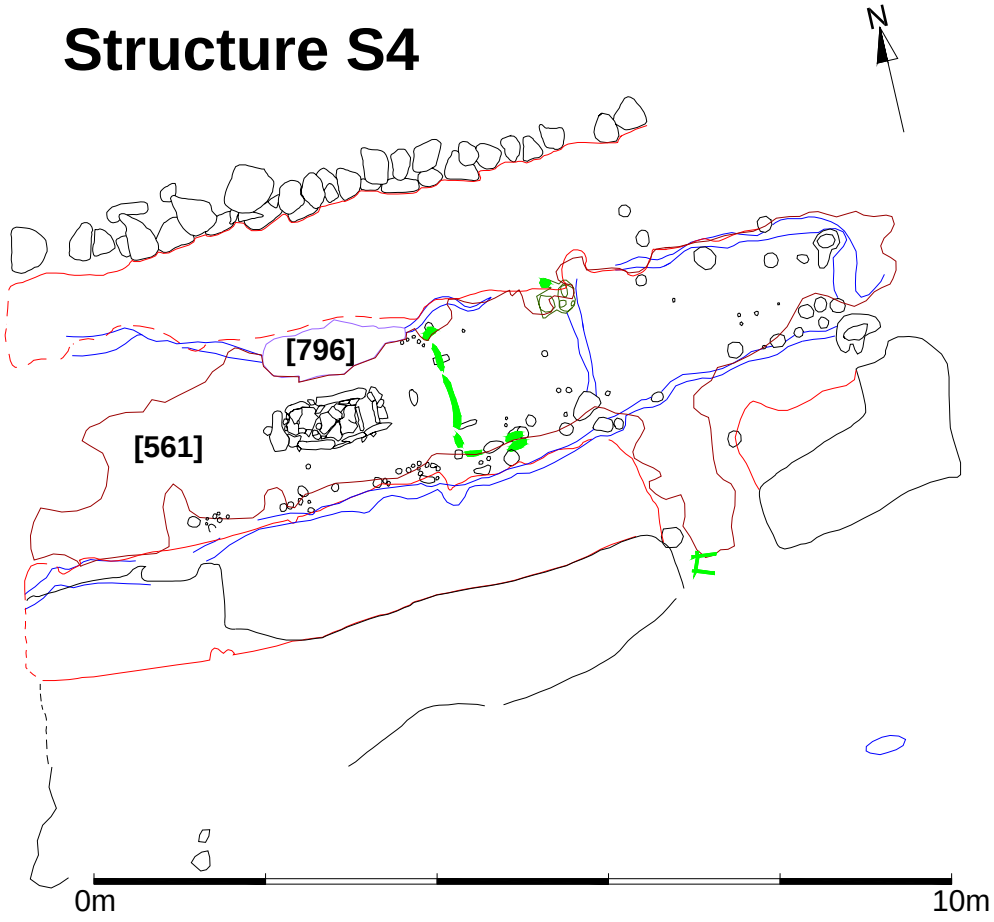


**Fig. 2**. *Structure 4. Floor layer [561] has brown outline. Cut for later hearth [796] is at the northern bench edge. Hearth [1068]is right in the middle between north and south benches. The walls are black and benches red. Postholes and stakeholes are outlined black. Wood remains are shown in green. Cut for the floor (and division) in blue.*

between it and the remains of a wooden threshold embedded in the floor some 80 cm east of the hearth – in what was clearly the main occupation area. Around the hearth [1068] the floor was 8-10 cm thick. East of the threshold it was 3-6 cm thick and west of the hearth it was 2-5 cm.

The floor contained remarkably little in terms of artefacts and inclusions. Burnt bones were estimated in the field to amount to less than 1% except around hearth [1068] where they were still less than 2%. Unburnt bones were less than 1%. White stone pebbles, which lay on the floor were few, less than 1% (stone pebbles were found on squares 41, 48, 58 and 53). In total 12 artefacts were recovered from the floor layer itself, mainly unrecognizable iron fragments (SF 2, 14, 23, 25), four iron nails (SF 5, 6, 15, 59), three stones (SF 10, 27**,** 62) and a chess piece carved from a haddock cleithrum (SF 11 – see Batey below).

Floor [561] was extensively sampled for analysis. The layer was divided into 50 $cm^2$ grid squares (see Fig. 6) and each square was ascribed a number, from 1 to 98. The layer was 100% recovered. A small bulk sample (ca. 250 ml) was taken from every square for chemical analysis and the rest of the square was retrieved for floatation in order to give good spatial resolution for archaeobotanical and microrefuse analyses. Samples for micromorphological analyses were collected on an east-west transect along the central axis of the building, and along one north-south transect, west of hearth [1068], where the wooden threshold was found. The sample grids and locations of micromorphology samples are shown on Fig. 6.

After the removal of the floor a number of postholes, stakeholes and pits as well as an earlier hearth were exposed (see Fig. 3). The majority of the postholes and stakeholes were found along the edges of the benches, mostly on the southern side, whereas later disturbance had cut through the floor on the northern side. Some of these holes seem to indicate wooden structures . Just west of the threshold there are five regularly spaced stakeholes arranged in a half circle at each side of the central aisle. In the eastern half of the building four pairs of postholes were found. The distances between the posts were 1,4 m, 1,8 m and 2 m. No traces of comparable postholes were found in the western half of the building, primarily on account of later disturbance. The largest pair of postholes was in the eastern end of the longhouse (30-50 cm in diameter) (see Fig. 3). Almost as large is the pair of postholes on either side of the threshold, east of the hearth (see below). The other postholes are within the range of 15-30 cm in diameter whereas the numerous stakeholes fall within the range of 5-15 cm in diameter. In several of the postholes a white stone pebble or iron fragment was found; in one [1188] a gaming piece made from steatite was recovered (SF 52) and another [1167] contained a large fragment of a lug-handled steatite vessel (SF 48). A pair of small postholes, [1158] and [1120], is located in front of the doorway, so that a post in the southern one would have blocked the entrance to the building. This may indicate that the doorway was originally in another location, but no traces of such a

**Fig. 3**. *Postholes and stakeholes under floor layer [561]and at the edges of the benches. Facing west.*

doorway could be found in the surviving walls and these holes are not large enough to preclude that they may be supports for sills or thresholds. Evidence for protracted use of the doorway comes in the form of a succession of surface layers in the doorway, underneath [561]. Layer [1105] is under [561] but on top of [1168] which sits on a layer of turf [1171] which is the same sort of material as in the benches and walls of Structure 4. [1171] sits in the cut for the doorway and was presumably placed there to create a level surface when the door was made. More substantial evidence for changes in the internal space of the building comes in the form of a cut right accross the central aisle, just west of the entranceway. This cut indicates the location of an earlier division wall (presumably with a door), some 1,6 m east of the later one indicated by the wooden threshold. This earlier division was presumably coterminous with the earlier hearth [1140].

The hearth [1068] is contemporary with the floor [561]. The cut for the hearth was longer than the stone structure built inside it, 1,8 m whereas the stone sturcture was 1,4 m long. The width of the hearth is 0,6 m. The hearth was divided into four compartments with flat lava stones set on edge. At the eastern end two small compartments were filled with ash deposits [1073 and 1092] but the floor layer [561] capped those fills, indicating that this part of the fearth had fallen out of use during the occupation of the building. The main hearth consisted of two sections, a fire place and a probable ember pit at its eastern side. The ember pit was full of ash [1074] but the main hearth was divided horizontally into a few layers. On top of ash-fill [1079] was a layer of flat lave stones [1076]. Under the fill [1079] there was another layer of flat lava stones [1080] - and under that a

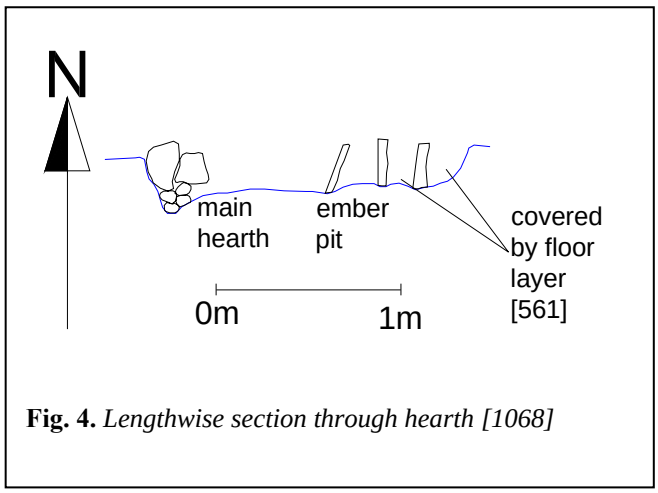


**Fig. 4.** *Lengthwise section through hearth [1068]*

**Fig. 5.** *Hearth [1140] in the foreground. Hearth [1068] at the back. Facing west.*

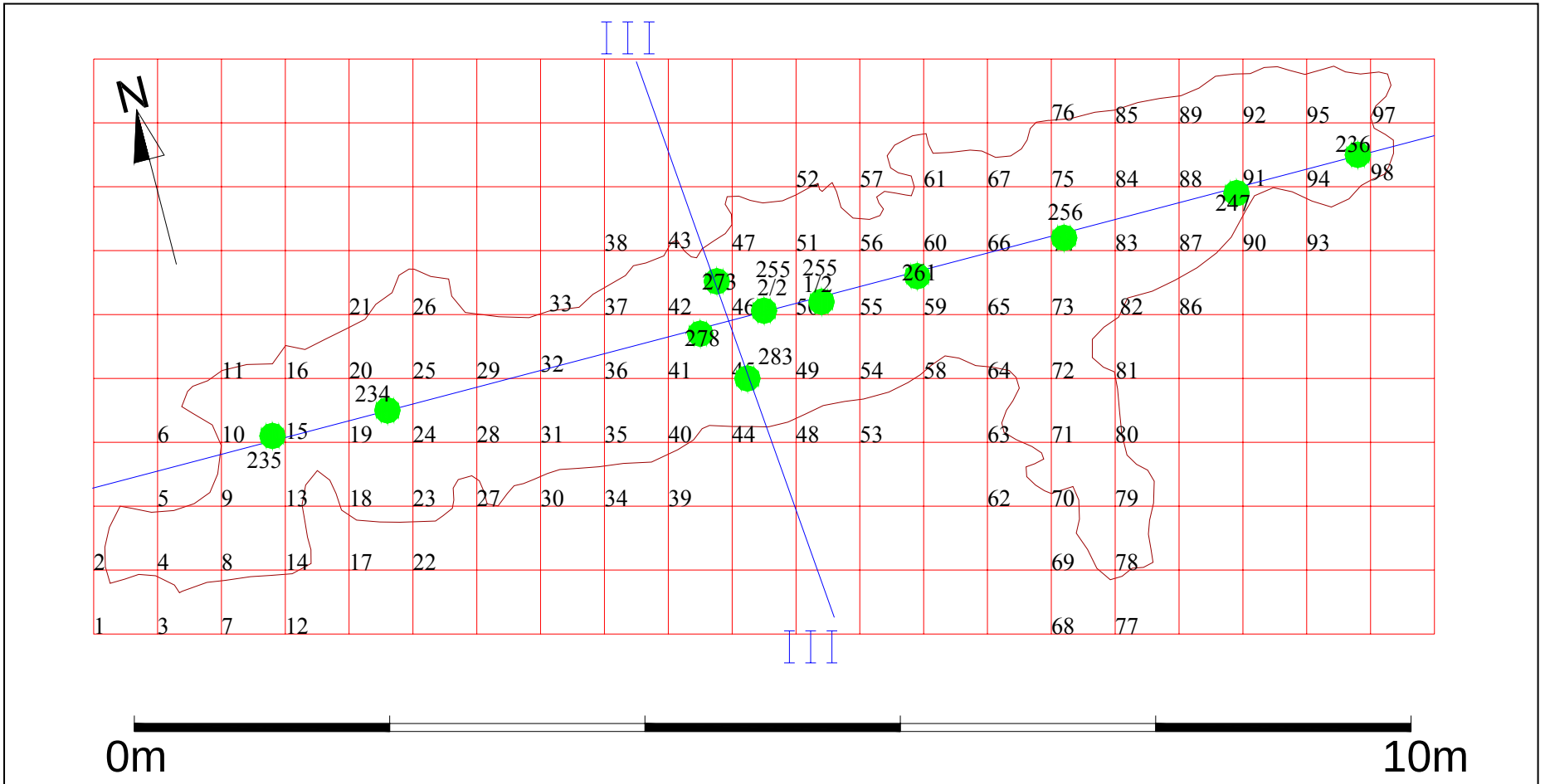


**Fig. 6.** *Sample grid for the floor [561] in Sveigakot. Samples for chemical analysis and flotation were taken from each numbered grid square. The green dots represent locations of micromorphology samples.*

thick layer of ash [1071]. No stones were in the bottom. The ash deposits in the hearth included burnt bones and charcoal, but nothing else. The hearth is situated right in the middle of the floor between the benches, ca. 0,7 m from the edges on either side. Immediately east of the hearth [1168], but under the floor layer [561] the remains of an earlier hearth [1140] and a charcoal filled pit [1133] were found. Hearth [1140] had been robbed out leaving an irregulary shaped depression (1,7 x 0,7 m). Some stones from the hearth remained *in situ* and the locations of others were indicated by depressions in the side of the hearth.

The excavation and recording of stakeholes was not fully completed in the 2003 and will be completed in 2004. Apart from those and possible archaeological deposits under the southern wall of S4 the excavation of this area has everywhere reached sterile.

## *Structure 5*

In 2002 the remains of a small ancillary structure built onto the northern wall of Structure 1 were investigated. This belongs to a later phase of occupation than other remains discussed in this report, and has been interpreted as a kitchen later turned into a pantry. This had been fully excavated except that stakeholes which had been exposed when floor [854] was removed had not been recorded.. In 2003 all those stakeholes [1023] were recorded and their fills sampled for flotation. In all 69 stakeholes were recorded, all with a diameter of 1-3 cms. There is no apparent pattern to their arrangement. See sample appendix, sample numbers 3-44.

**Fig. 7.** *Stakeholes [1023]in area S5. Facing south.*

## *Structures 3 and 6*

As early as the 2000 season a pavement [624] extending eastwards from Structure 1 had been exposed. This had been cleaned and recorded but little excavation had taken place in this part of the excavation area until 2002. Then a number of small deposits ringing the pavement, but not in direct association with it, were recorded and

removed ([879], [892], [893], [905], [906], [909], [910], [914], [939], [941]). These all postdate a more extensive surface layer [847] recorded, but not removed, in 2002. Surface layer [847] was interpreted as a floor, predating the pavement [624]. The pavement [624] has been considered to belong to Structure 3, contemporary with Structure 1, whereas floor [847] seemed to indicate an earlier and different sort of

**Fig. 8.** *Vertical photograph of pavement [624] – north is up.*

building, possibly coterminous with Structure 4, and this has therefore been labeled as Structure 6.

Apart from the pavement itself there is very little structural evidence for Structure 3. Two possible postholes have been found on the southern side of the pavement, the shallow depression [998] and the more substantial and 16 cm deep post hole [992]. On the northern side there are remains of a very badly damaged turf and stone wall [1060]. The foundations of this wall not only predate the pavement but also some of the earlier surface layers so it must be considered to have been built as a part of Structure 6. This does not however mean that the wall(s) of Structure 6 could not have been reused in Structure 3 – just as the northern wall of Structure 4 continued to be used in Structure 1. However the status of Structure 3 as a roofed building must remain ambiguous. The pavement surface was remarkably uneven and

would not have made a good flat floor. When removed the pavement was shown to have been laid down in a fairly haphazard way. In places it had 2 courses of stones and had clearly been laid down on a very uneven surface, possibly into a pre-existing depression. It is therefore consistent with an outdoor paving constructed to keep dry a much used walkway from the door on the gable of Structure 1. The necessity for a

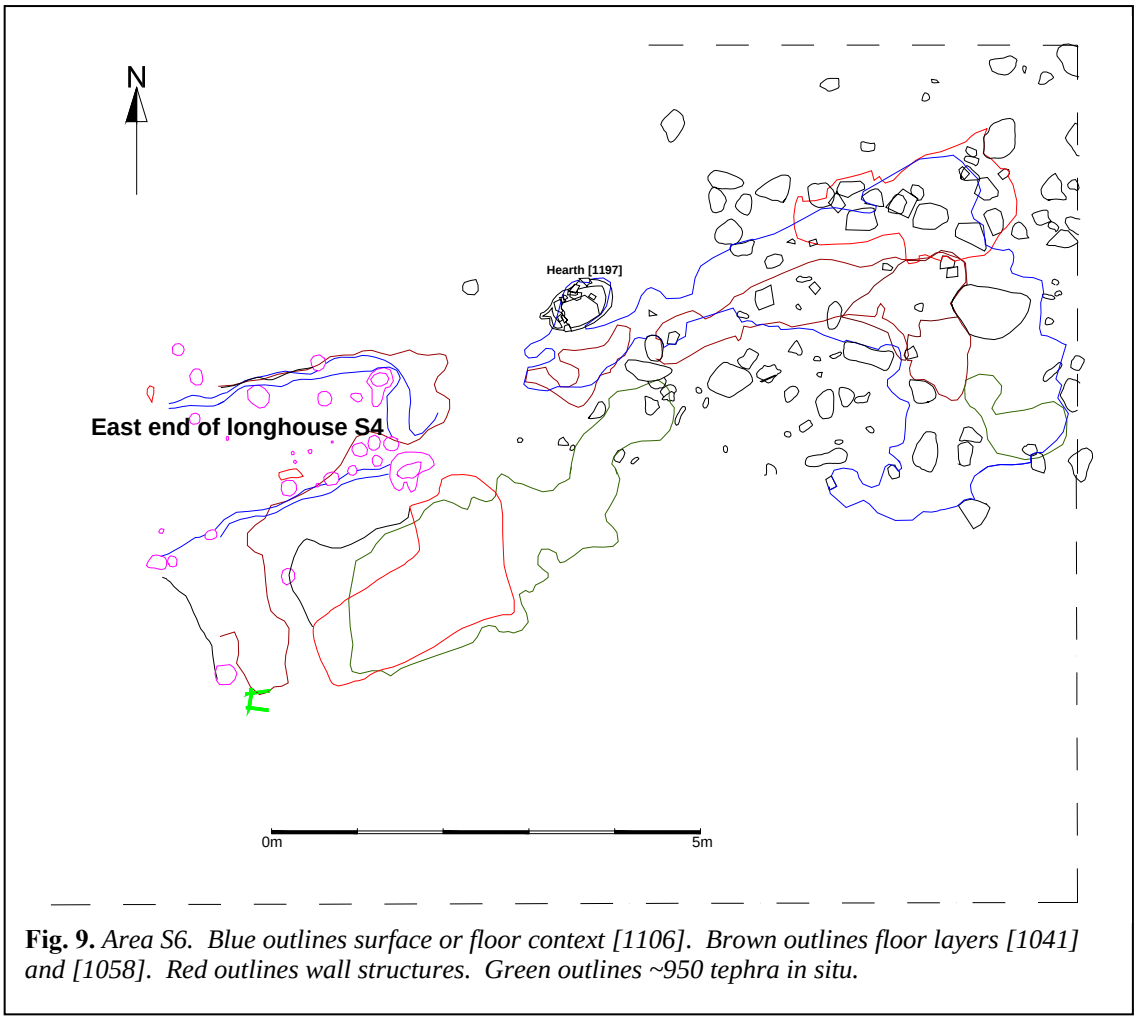


**Fig. 9.** *Area S6. Blue outlines surface or floor context [1106]. Brown outlines floor layers [1041] and [1058]. Red outlines wall structures. Green outlines ~950 tephra in situ.*

paving in this location may have arisen because earlier pits (see below) had made the ground uneven and liable to become sodden and muddy. While it cannot be precluded that pavement [624] was inside a roofed building, presumably attached to Structure 1, it is not safe in the absence of any unequivocal evidence for such a building, to assume that it was.

The available evidence does therefore not support an interpretation of pavement [624] as the central aisle in a byre attached to Structure 1. Once the pavement [624] had been removed it became apparent that the floor layer that had been observed on the north and east of the pavement did not extend underneath it. Instead the pavement rested directly on natural or deposits much earlier in the

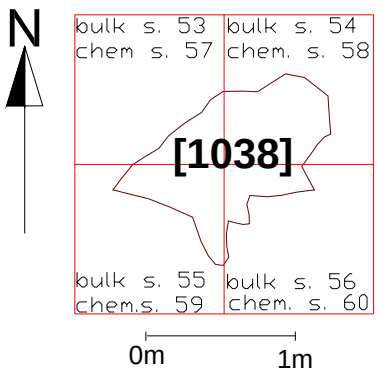


**Fig. 10.** *Sample grid in context [1038]*

sequence. Instead the pavement seems to have cut away most of the deposits immediately predating it. This cut was however nowhere distinct and the borders of the deposits adjoining the pavement where everywhere diffuse. In one place the surface layer [1041] coated an almost vertical edge facing the pavement. The nature of these borders strengthens the notion that the pavement was laid on a muddy and uneven surface. The deposits north and east of the pavement [624] had been recorded in 2002 as a single floor layer [847]. On closer inspection it became apparent that these are a series of distinct deposits and [847] was instead used as a group number. These define an area some 5 m long and 2 m wide with a slightly different alignment than the pavement, closer to that of Structure 4. These deposits were thickest and most complex by the northeastern corner of the pavement, adjacent to a large natural boulder. Here layer [893] had been removed in 2002, and underneath that was a very black and charcoal stained layer [1038] with a loom weight (SF 9). Underneath this as well as the pavement was an ash dump [1039] filling in a slight depression, and some 20 cm south of it another identical dump [1040] also predating the pavement [624]. [1039] overlay a much more extensive surface deposit [1041], which along with identical layer [1058] defines the extent of Structure 6. [1041] is upto 15 cm thick in the northeastern corner, and here a micromorphology sample was taken, but elswhere it was 1-3 cm thick. [1041] and [1058] are not very homogneous and not at all compacted, but are characterised by high ash content and frequent charcoal and some burnt bone. Some red sandstone fragments (SF 12) were recovered from [1041]. Belonging to this group is probably also a couple of ash dumps ([1051] and [1055], the latter filling depression [1056] south of but not directly associated with [1041]. These dumps are similar to [1039] and [1040] already mentioned. They all seem to indicate dumping, possibly deliberate infilling of depressions, rather than fire places as the depressions are all irregular and there was no sign of reddening of the soil. This is in contrast to the more formal fireplaces belonging to the phase associated with layer [1106] (see below), and may indicate the peripheral nature of this part of the site.

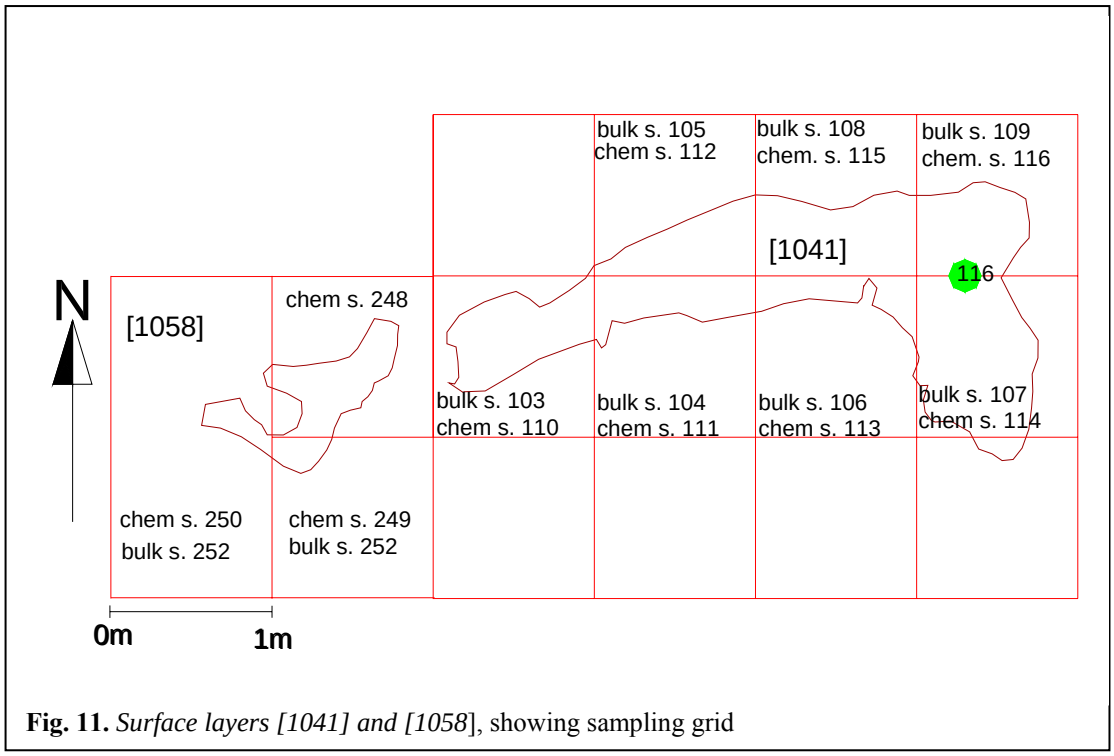


**Fig. 11.** *Surface layers [1041] and [1058]*, showing sampling grid

Group [857] is associated with wall [1060]. This is an irregular scatter of stones describing a curved line extending eastwards the line of the northern wall of Structure 4. None of these stones seem to be perfectly *in situ* and they are not associated with turf deposits except at the eastern end where there is a fairly substantial section of turf wall, albeit largely collapsed. Surface layer [1041] ends 40 cm or more from the line of stones but in one place a toungue of turf collapse from [1060] extends underneath [1041] suggesting that the wall had begun to collapse or was completely collapsed when layers associated with group [847] began to be deposited. Although it is difficult to be certain due to the poor preservation of the wall it seems that it had only a short period of use, between the phases associated with [1106] and group [847]. As it clearly postdates [1106] it seems it should primarily be connected with the latter phase.

Underneath pavement [624] there were two fire places which have no direct association with other phases. This is small elongated hearth [1068] and the more complex hearth [1071]. Judging from their position and elevation these hearths could belong to the same phase as hearth [1104] which is cut into surface layer [1106] and not doubt belongs to its period of use. [1106] is a widespread surface layer that is in nature a fill of a number of depressions in the area, but on which a surface has formed. This deposit describes an area some 6 x 3,6 m in size, with the southwest part missing, cut away mainly by pavement [624]. The deposit was quite compact on top but its

bulk is made up of turf debris with lenses of ash and charcoal inbetween. It therefore seems to be a mix of building debris and refuse that has been used to level an uneven area which subsequently became regularly trodden on. Several artefacts were retrieved from this deposit, i.a. a couple of loom weights (SF 29, 32), an iron nail (SF 30) and a small piece of smelting slag (SF 34). This layer clearly predates the wall

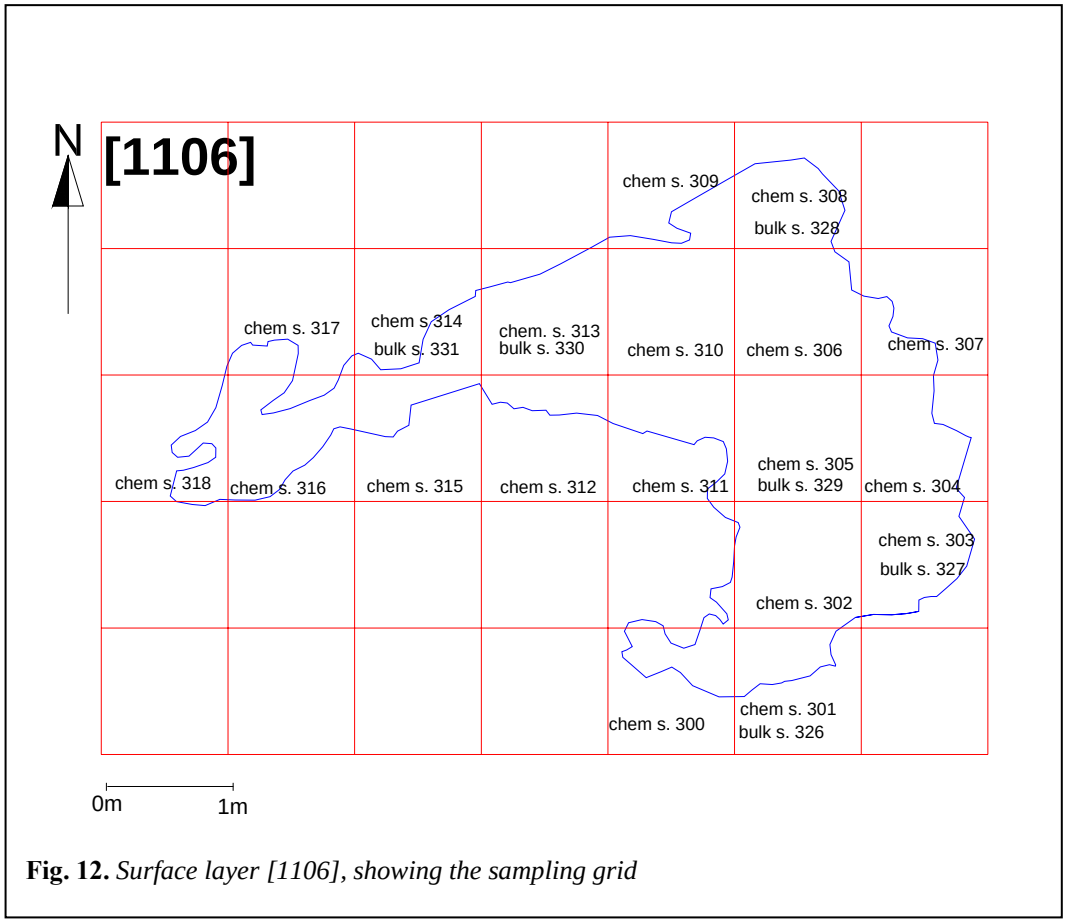


**Fig. 12.** *Surface layer [1106], showing the sampling grid*

[1060] which was built on top of its northern part, and it also predates wall [1077], the southeastern corner of Structure 4 (same as [1015]). It seems however that the building of Structure 4 and the levelling of the uneven ground immedately east of it by laying down [1106] are associated events and that the use of [1106] as an activity area is contemporary with the first years of use of Structure 4.

[1106] infilled a number of small and large pits and depressions many of which had the V~950 tephra [1101] in situ in the base. The tephra is in places more than 1 cm thick and could also be seen under the southern wall of Structure 4 [1077] which must have been built very shortly after the tephra was deposited. In the depressions a very distinctive organic, pink-orange layer was found underneath the tephra ([1127 and [1187]). Similar deposits have been encountered previously at Sveigakot, both in later phases and also in a similar stratigraphic position in area T,

**Fig. 13.** *The V~950 tephra lining an irregular pit, later filled with turf wall of Structure 4.*

where a triangular pit was excavated in 2003, just west of the pit-house, with an identical deposit at the base. The origin and nature of this deposit is not understood at present.

Underneath the widespread pink-orange deposit [1187] were two hearths. Hearth [1197] is a semi-circular shallow depression with small lava stones sat on edge along the rim and a flat lava stone in the base. [1205] is only a small patch of reddened silt filling an irregular depression, which is interpreted as evidence for a hearth, the structure of which has been removed.

Along with these two small hearths the irregular depressions and pits which have been previously alluded to are the earliest archaeological feaures in this area. The pits have a general east-west orientation and range in size from peg-holes 1-2 cm in diamter, to post-hole sizes (20 x 20 cm), to hearth sizes (60 x 30 cm) to more substantial pits, more than 1 m in diameter. The larger pits are mostly irregularly shaped and tend to be elongated. The depth varies from 10-30 cm. One of the larger pits is under the southeastern corner of Structure 4 ([1077]) where large amounts of turf had been needed to fill in the pit before the wall could be built. It is therefore possible that the pits continue westwards from the area investigated in 2003. At

present no good explanation has been found for these pits and it can only be suggested that their function might have had something to do with the orange-pink deposit [1187] that fills them. Another possibility suggested by Professor Paul Buckland when he visited the site is that these depressions may be pig wallows, pits created by tethered pigs.

South of the southeastern corner of Structure 4 a number of turf and aeolian deposits was removed. These were capped by a dark brown silt with patches of organic matter, recorded as [686] in 2001 and [870] in 2002. Below this was an upto 12 cm thick layer of turf [1144], from which a loom weight (SF 41) and a piece of smelting slag (SF 40) were retrieved. Underneath this was a layer of sand [1155] which probably represents a period of aeolian deposition rather than deliberate infill because the sand is mixed in with underlying turf debris. Below this as well as the wall of Structure 4 (i.e. [1015/1077/1171]) was a deposit of turf debris and stones, which seems to be a fill to level the ground before the building of Structure 4. The deposits underneath this have not yet been excavated but they clearly are fills in a cut which has a northeast corner opposite the southeast corner of Structure 4. This feature clearly predates the building of Structure 4 and is interpreted as a sunken featured building, the investigation of which will be continued in 2004.

All the occupational and surface deposits in this area were sampled for flotation and chemical analyses. A single micromorphological sample was also taken in the northeast corner where the layers of group [847] where particularly thick.

## *Area N*

**Fig. 14.** *Area N. Facing east.*

South of Structure 4 a new area, N, was opened at the beginning of the field season 2003.

A number of anthropogenic deposits had been recorded in a 1x1 m test pit in this location in 2000. In 2003 a 5 x 7 m area was opened up in order to investigate these remains. Under the top soil in area N, the west end of the south wall of the longhouse S4 appeared [1126=1015], badly eroded like the western end of the structure in general. At the south side of the wall a depression was exposed. The depression was

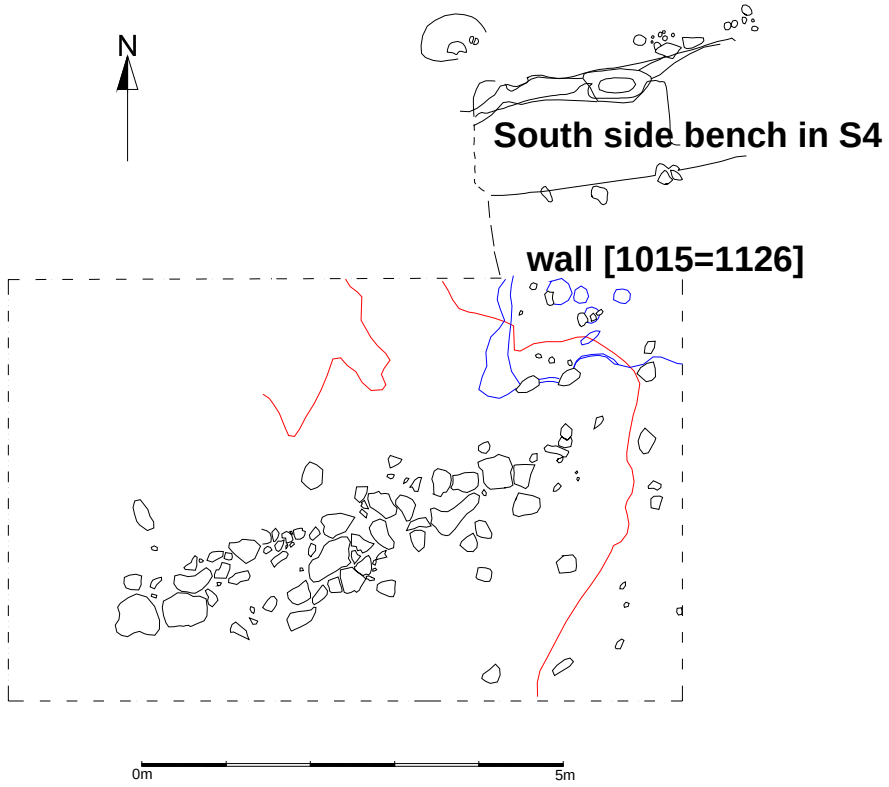


**Fig. 15.** *Area N. Pavement [1200]. Red outlines the depresison. Blue is the southwest corner of the south longhouse wall [1015=1126].*

filled with several layers wich had accumulated on top of a stone pavement [1200]. Topmost was a sheet midden [1042], covering a layer of aeolian deposition [1045], from which a knob of an oval brooch (SF 13) was retrieved. Below this, layers of turf debris alternated with midden material ([1050], [1054], [1057], [1065], [1070] – which yielded a complete steatite spindle whorl (SF 21) – [1075], [1091], [1100], [1142], [1143], [1146]) overlaying a pavement [1200]. These layers form a discrete series infilling an elongated depression cut through the edge of the farm site, without any stratigraphic relationship with deposits outside the depression. The only exception is turf layer [1146] which is covered in part by the south wall of Structure 4 [1126/1015].

The pavement therefore predates Structure 4 and had become partially submerged when Structure 4 was built. The depression then gradually filled in, primarily with turf deposits, especially to begin with, but also with midden material, mostly very thin spreads, increasing in frequency as time went by. These midden deposits can be assumed to originate within Structure 4, but they cannot be considered as the main principal refuse dump from that building. They are too ephemeral for that.

The pavement [1200] is a curious feature. There is no evidence for any sort of superstructure around it so it must be assumed to have been outdoors. It sits in a depression which is quite irregular and shows no signs of being manmade, although this possibility cannot be precluded. The pavement seems therefore to have served as a ramp connecting the lower ground to the west of the site to the upper ground on which the buildings were situated, possibly utilising a natural groove in the brake of slope.

## *Area P*

South of Area N a 5 x 5 m area, called P, was opened. Investigation of this area only began in the last days of the season so only limited headway was made. Nevertheless the northwest corner of a sunken featured building was exposed. This is at least 4 m long and more than 2 m wide. A tongue of the sheet midden M [1214] extends over this feature and from this a blue glass bead (SF 67) and an iron handle (SF 69) were retrieved. The relationship with M suggests that the building in area P belongs to the earlier phases of occupation at Sveigakot. Area P waits to be excavated further in 2004.

## *Discussion*

Previous excavation seasons have shown that Structure 4, and Structure 1 which was built on top of it, have a long and complex history of use. This season added to that story by showing that below the main floor layer of the building are the remains of a number of negative features demonstrating that the building had gone through some substantial changes before the floor deposit was formed. The main changes are twofold:

In the first place posts that had originally been set in postholes were taken up and reset on post pads. A similar development has been observed at Hofstaðir, where the main floor layer also caps a number of post-holes. This may indicate adaptation, the process of learning that posts will rot in Icelandic soil, presumably faster than in the soils the settlers were used to from their homelands. If this is the main reason it seems that this adaptation took a long time as both the Hofstaðir hall and Structure 4

at Sveigakot are built in the late 10th century, possibly more than a century after the initial settlement. Another way of looking at this is to take this as an indication of increasing longevity of the buildings, i.e. that buildings built in the early period of settlement were not intended to last very long, or at least no longer than it took the roof bearing posts to rot at the base. The resetting of posts on postpads may therefore be an indication of permanence, possibly reflecting a change in attitude on behalf of the inhabitants. Instead of building for the short term, they had become resigned/content with their site and their home and were starting to develop ways to ensure the permanence of their settlement. What this sequence also showes very clearly is that homogenous floor layers like that at Sveigkot may only represent the very last period of use of the building, possibly as little as a single year. Of the floor deposits associated with the post holes little or nothing was left, indicating that these had been cleaned out, which in turn suggests that such cleaning episodes could have been numerous. This would partly explain the paucity of artefacts retrieved from floors like that in Structure 4 at Sveigakot.

The other main change relates to alterations in the organisation of space within the building. In the last phase the hearth was located some 2,7 m west of the entrance and a divison, evidenced by a threshold, 1,8 m from the entrance. This division will have created a small space west of the entrance with benches on either side. In an earlier phase the layout was different, with a hearth further east and a division just inside the entrance, dividing the central part of the building, the part with the benches, from the eastern end where the entrance is. It is also possible that in this or some earlier phase the entrance itself was located in a different place, possibly on the western end of the building, as no traces of a doorway could be found in the remaining walls.

At present it is only possible to say that Structure 4 was built in the late 10th century, very shortly after the V~950 tephra was deposited. The evidence for internal changes to the building suggests a period of use of at least several decades but no firm evidence has yet been found to tie this down with any certainty. When Structure 1 was built the eastern gable end of Structure 4 was torn down and a pavement [624] laid out in continuation of the doorway of the new Structure 1. There is no evidence available to suggest that the pavement was a part of a roofed structure. Instead it seems to have been outdoors, leading up to the main entrance of Structure 1.

Jumping back to the time when Structure 4 was built it seems that considerable infilling of various pits and holes east and south of the new house site was called for before construction could commence. East of Structure 4 this levelling layer became the surface of an activity area, clearly defined, at least on the northern and eastern sides where it survives, and possibly bounded by a fence, traces of which have since disappeared. This activity area includes several hearths which may indicate that this was a place for some industry and/or cooking. At a later date, while Structure 4 was still in use, a stone and turf wall was built on the northern edge of this area, presumably continuing the northern wall of Structure 4 eastwards. In the shelter of this wall a series of occupational deposits (group [847]) accumulated. It is possible that this area was roofed during this phase, but the absence of southern and eastern walls, post holes or likely post pads speaks agains this.

For the first time a number of features has come to light which is definetely earlier than the V~950 tephra. These include two fire places east of Structure 4 and a number of irregular pits, the function of which is enigmatic. Predating Structure 4, and therefore presumably V~950 although this cannot be proven, is a pavement or ramp down the slope on the western edge of the site and a sunken feature, presumably a building, alongside the southern side of Structure 4. Further south another sunken featured building is beginning to come to light which predates the sheet midden M and therefore presumably also belongs to the earlier phases of occupation at the site.

Przemysław Urbańczyk

# Area T/M

## *Strategy*

The main goal of the 2003 field campaign at the southern part of the Sveigakot deserted farm was to study the closest vicinity of the sunken house I that was excavated during the two previous summers (cf. earlier reports). The excavation team consisted of Magdalena Natuniewicz-Sekuła, Robert Żukowski and the current author.

Excavation and recording routines followed the system introduced in 2002, i.e. single-layer plan drawings were combined with digital photos and total-station readings to produce stratigraphic records. Thus, some time was used the first day to construct a photo tower. The new version (7 metres high) appeared too heavy to move it around and too unstable to climb it. Therefore, we made a version designed during the former season (5 m high) that can be raised and moved by two persons. As an substantial improvement a special arm was constructed to ease the process of photographing (Fig. 1). This time the SONY-Poland company provided us with a special converter for wide-angle photos, which made possible to record surfaces of ca. 4x5 metres.

**Fig. 1.** Photo-tower version 2003

As the perspective plan for further excavations it was decided to join the areas S, M and T by a long 2 metres wide trench. This would make possible to find out stratigraphic relations between the three parts of the farm. Starting this project, however, depended on the earlier clearance of the situation around the two sunken buildings excavated in the area T in 2001 and 2002. Therefore, three extensions to the old trench were made:

- one (3 x 1 m) at its south end to detect the extension of the building II;
- another (3 x 3 m) adjacent to the north-western part of the western edge to excavate the rest of the deep pit **898**; and
- one between the earlier excavated areas T and M to check whether there was another sunken house. This area will be called "M/T".

Altogether ca. 38 square metres were open for excavation.

## *Results*

In the **southern extension** the end of building II was easily identified. As expected the large boulder visible on the surface marked the southern limit of the floor depression. It was covered by a sequence of three sandy layers that fit contexts recorded in 2001: **1034** (= 897), **1033** (= 896) and **1031** (= 744). The final fill was recorded as context **1028**. It consisted of stripes of dark brown soil and lenses of greenish-grey tephra. Thus, it must be the rest of the context **712** recorded and excavated in 2001. Sieving of the layer produced just few bones.

Thus, the full outline of the building II was achieved (Fig. 2). The new results did not change the earlier interpretation of the structure as a non-habitation structure used for storage an/or for keeping animals. This will be decided after the analyses of the lowest floor samples will be available.

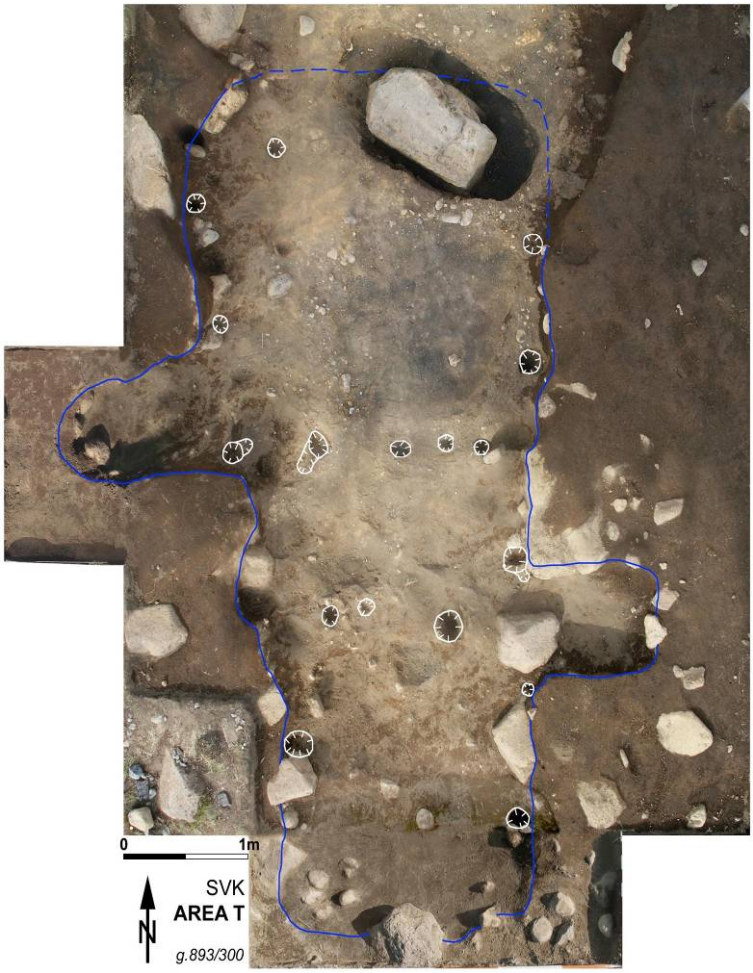


**Fig. 2.** Building II fully exposed after the 2003 excavation

In the **north-western extension** a large rectangular (1,5 x 1,5 m) pit was exposed, which was partly seen in the W section of the trench excavated in 2001-2002. Its vertical walls prove that the structure was quickly filled before the natural erosion processes started to change its profile. It was over 40 cm deep with 6 boulders sticking out of its floor formed in the natural ground.

At the bottom in-between the boulders a layer of gray-brown sand [**1118**] accumulated. It contained small pieces of charcoal and single burned bones. The upper part of the primary fill consisted by a thin layer **1098** [= 931] of compact dark brown sand mixed with small bits of charcoal. This was covered by a thick (<35 cm) layer of mixed yellow-orange turf **1096** [= 898] that contained numerous osteological finds (mostly fish-bones) and charcoal pieces. The next context consisted of a patch of dark gray ashes mixed with bits of charcoal, bones and burned bones – **1095**. From this surface a hole was dug where a post was placed on a stone put at the bottom – **1094** (Fig. 3).

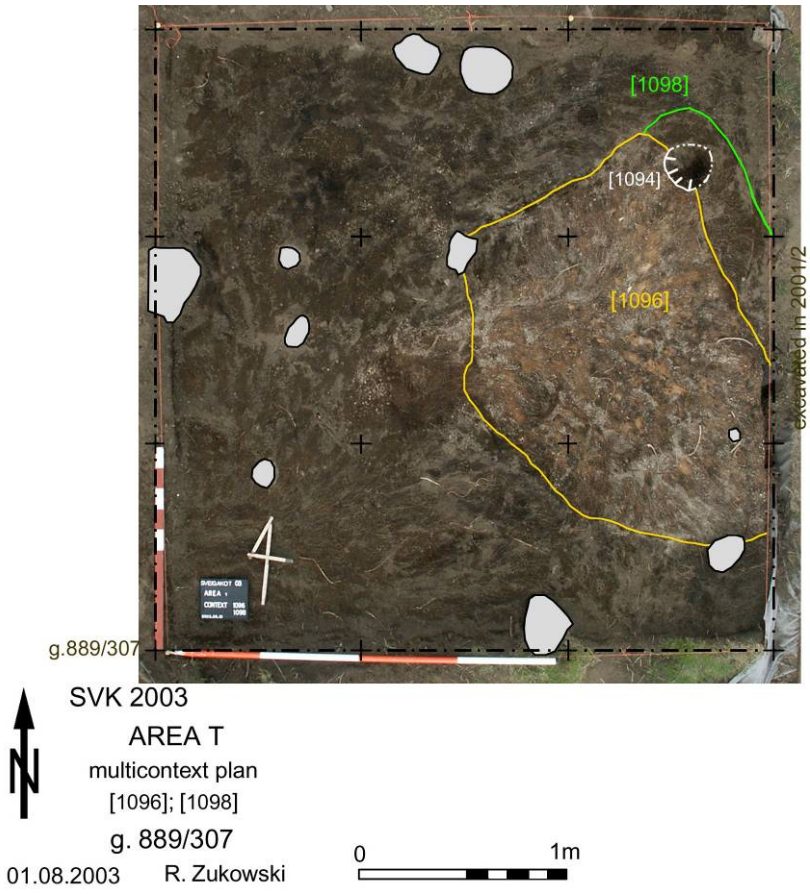


**Fig. 3.** Layers filling the pit

This situation was covered by a sandy layer mixed with lenses of greenish tephra. This context **1036** is equal to the layer 712 that covered building II and was cut by the sunken floor of House I. Such a stratigraphic context made possible to establish relative chronology of the three structures: building II and the square pit belong to the phase that might have preceded the time of the greenish tephra formation while the building/house I is younger than the relevant volcanic eruption.

The process of the natural compaction of the fill of the pit resulted in forming of a depression with a large stone sticking up from the bottom. This depression was subsequently used as a place for disposal of the household rubbish (probably thrown out from the House I) that accumulated as the ashy context **1029** equal to the midden context 671, which was excavated in 2001 outside the House I. Sieving produced charcoal, numerous bones, fish-bones, burned bone fragments and a nail. The youngest accumulation formed as a brown subsoil layer consisted of soft brown sand. It was numbered **1032** and equals to the context 703 recorded in 2001.

Excavation of the **area M/T** took much more time due to its much larger size and deeper stratification. As usual, the most problematic was the first phase of excavation when stratigraphic relations to the earlier explored areas M and T had to be established. And as usual, the upper layers were more difficult to interpret because of distortions caused by the post-depositional processes.

The stratigraphic story of this part of the Sveigakot site – as far as it is known at this stage of excavations – may be told as follows:

During the last phase of using the sunken house II a thin layer of orange-brown (in the centre of the house depression) and yellow-brown (at the edges) organic silt accumulated around the small rectangular (ca 25 x 25 cm) hearth framed by vertical lava slabs. The abandoned house was probably used to eventually throw inside household rubbish that mixed with naturally accumulating sand. This context **1066** formed as a very soft dark brown sand with single charcoal flecks and tiny pieces of burned bones (Fig. 4). At the edges it was thin and rested directly on the natural ground while towards the center it was ca. 10 cm thick. It filled evenly the whole floor depression surrounded by natural ground composed of the orange sand and black and greenish tephras. On the surface of this layer rested some large mammal bones, a fragment of a whet-stone and worked whale(?) bone that were all, probably, thrown inside the deteriorating house.


**Fig. 4.** Sandy context 1066

The next layer **1046** consisted of multiple silty lenses of various colors, which indicates some fallen turf construction (Fig. 5).

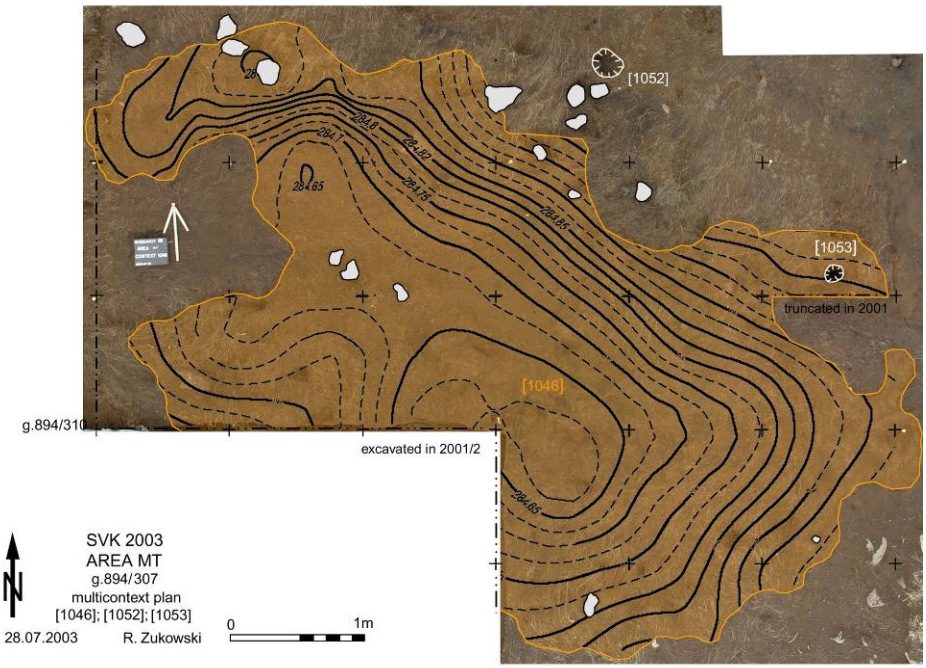


**Fig. 5.** Fallen turf roof – context 1046

To decide its nature a small section was made along the E 897 line (Fig. 6). It showed that the lenses in the middle of the "house" are parallel to the shape of the depression while at the edge they seem to be overturned. This may suggest that we have here both: the collapse of a very low wall and of the turf-covered roof, which together formed one layer of the final destruction of House II.

**Fig. 6.** Section through the fallen roof

This layer was the most extensive (ca. 8 x 4 meters) and thus giving the closest resemblance of the size of the original ruin. All subsequent accumulations have been subject to the post-depositional processes (mostly Aeolian surface erosion), which resulted in their partial preservation. Happily, the complete (?) sequence of depositions survived in the northern part of the area T/M which made possible to reconstruct the last phase of the House II.

Available stratigraphic data indicate that the house was surrounded by a low turf wall built around a line of posts that probably supported roof construction. Two mixed light brown and orange-brown sandy layers **[1048** and **1049]** (partly excavated in 2002 during the xploration of the midden area M) might have been rests of the original wall. Very dark brown to black gravel **[1047]** with loose stones, charcoal and bones was probably used to fill the earthen core of the wall's foundation (Fig. 7).

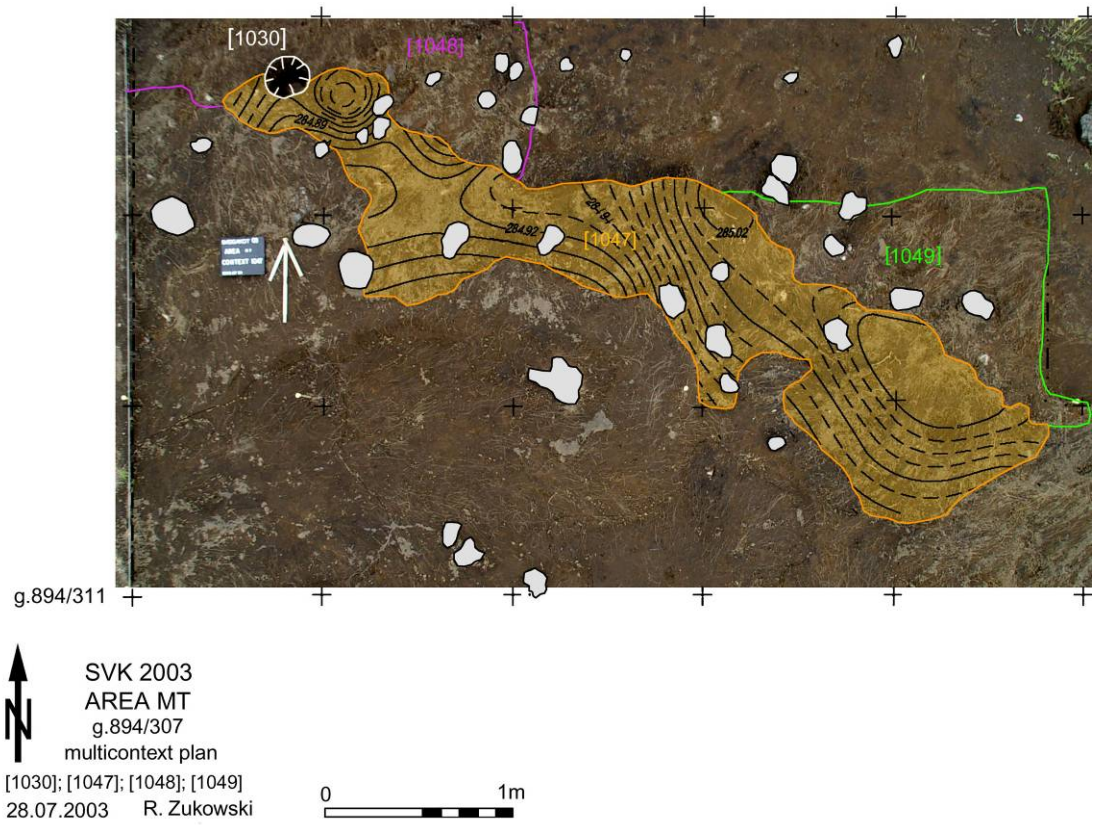


**Fig. 7.** Rests of turf wall(?) – context 1047

The surface adjacent to the north and north-east of the House II was used as the midden area. Two identified layers of this midden **[1026 and 1027]** "leaned on" the outer face of the house wall. They consisted of the lenses of ashes and brownish sandy soil with some bones and burned bones. They both covered the greenish 950 AD tephra, which proves that they belong to the younger phase of the big midden that was excavated by the zooarchaeologists in 2000-2002.

The collapse of the roof marks the moment of the final abandonment of the House II. From that time on natural accumulation and/or erosion processes prevailed at the studied area. They resulted in formation of a thick (up to 10 cm) layer **1044** (Fig. 8). It consisted of many smaller sub-layers of various colours - from loose black sand (Aeolian accumulation) to light-brown silt (short term soil formation processes). There were single flecks of charcoal here and there but no finds. This context may be simply interpreted as natural accumulations with their differentiated structure reflecting changes in environmental conditions. Therefore, we decided to remove it in one action giving up attempts to split it into smaller units, which would be possible but archaeologically meaningless.

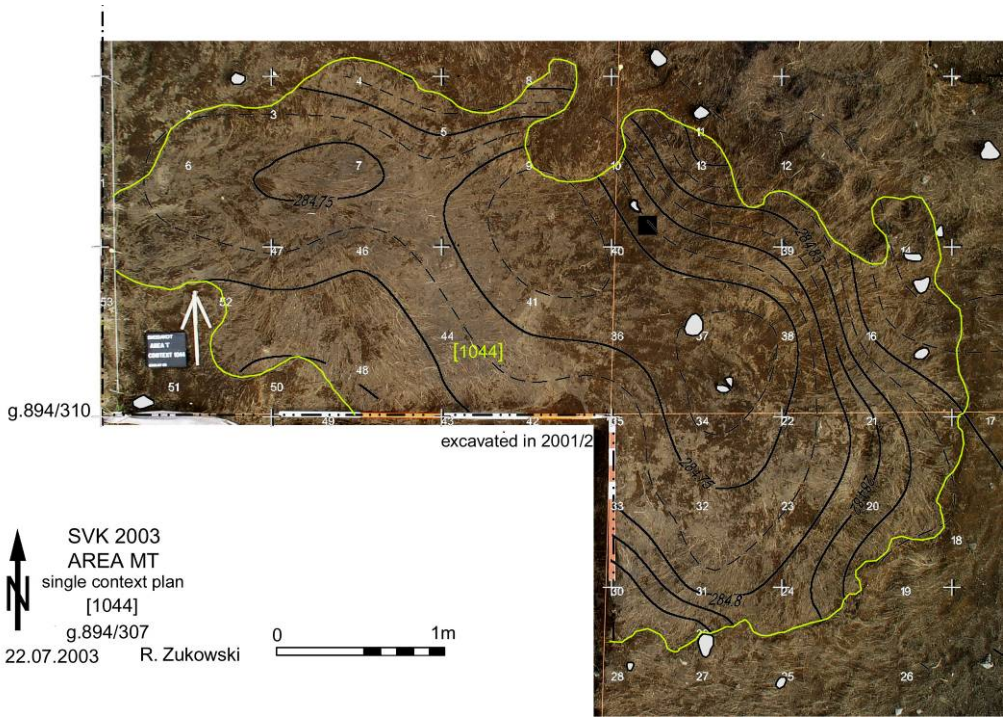


**Fig. 8.** Naturally accumulated sandy context 1044

Some longer period of stable weather resulted in accumulation a thin light brown sandy silt **1043**. It covered only the lowest part of the post-house depression. This process was terminated by the next period of intensive dry weather sedimentation of black wind-blown sand **1037** (Fig. 9).

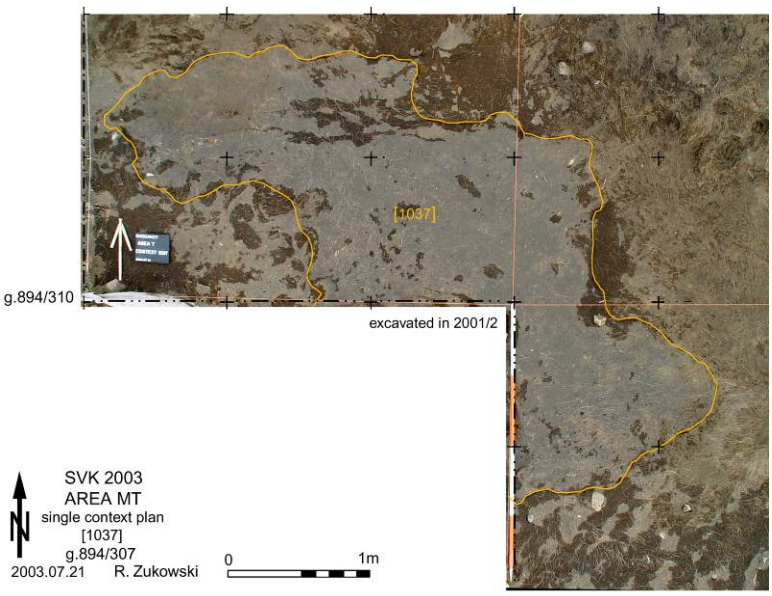


**Fig. 9.** View of black sand context 1037.

Final leveling of the ground took place with the accumulation of very thick (up to 30 cm in the middle) brown sandy layer **1035** that filled the depression still visible over the House II ruin (Fig. 10). It also formed in result of natural deposition processes. The layer was completely sterile with a single exception of a fragment of whet-stone found at its bottom. This deposit made the traces of the house "invisible".

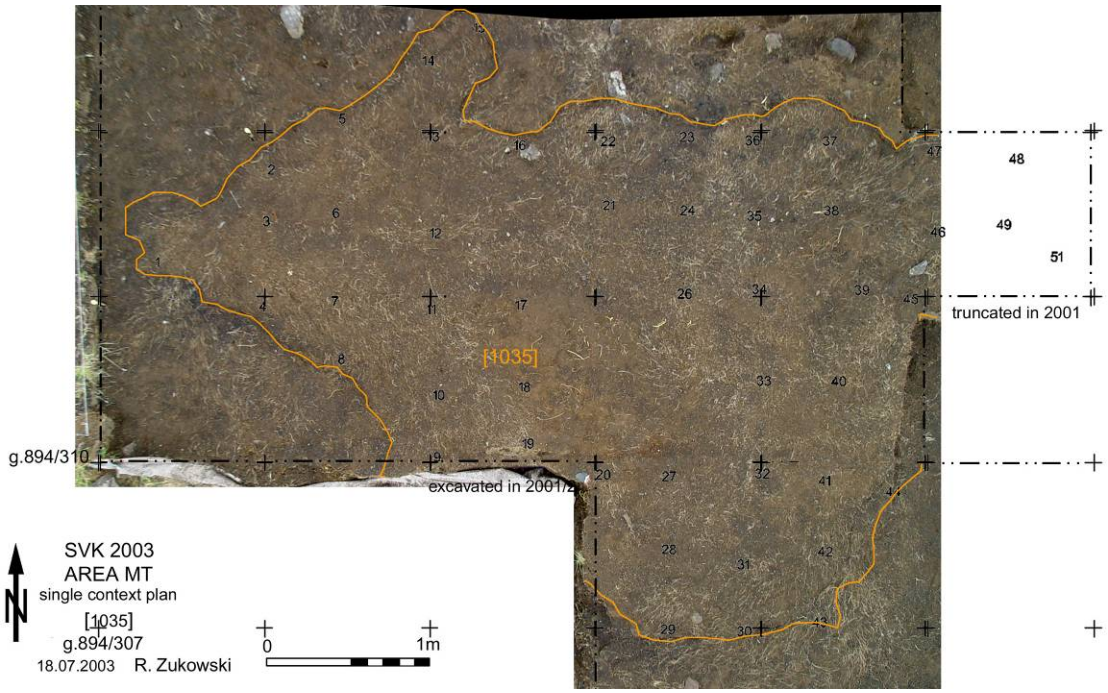


**Fig. 10.** Levelling layer 1035

The stratigraphic sequence of the area was finaly sealed with the sandy turf that was removed at the beginning of the excavation.

Colleen E. Batey

# Finds summary 2003

The excavation season of 2003 at Sveigakot yielded 72 finds units made up of copper alloy and iron, bone and antler and stone, in addition to a small number of items distinguished as industrial debris.

COPPER ALLOY

Two items of copper alloy were recovered. SF 31 from pit fill 1122 is a short sinuous length of round-sectioned wire. Its function is unclear but one end appears to be broken and the other complete and tapering. It is not chronologically sensistive. However the second item, SF 13 from context 1045, an accumulation of aeolian sand material is distinctive. This is a weathered knob from a type P51 oval brooch of distinctive Viking-age origin. There are sereval examples already known of this type from Icelandic graves (eg Eldjárn and Friðriksson 2000, 356, fig 219) and P51 brooches make up the bulk of brooches of this oval form (*op cit* ,602-3). The composite type of oval brooch has been extensively studied by Jansson (1985)and in his study of comparative brooches from several Viking contexts (*op cit*,75) he demonstrates the slightly varied forms of decoration and the nature of these bosses or knobs. There are two types of bosses which make up the parts of the upper decorative scheme, those which are integral to the manufacture of the upper shell, which are essentially round with four perforations at the compass points and traces of a nipple, these are usually gilded. The second type of boss is secondary to the upper shell manufacture and functions as a cover for the protruding stmes which affix the lower shalles of the brooch to the upper openwork parts. This latter type is often of differing alloy

*Knob of oval brooch SVK03-013*

composition ( see Jansson 1985, 108) and in an example examined from a Viking grave from Kneep, Lewis, Scotland, this secondary boss was actually made of a soldering metal (Welander, Batey and Cowie 1987). The interesting feature about the knob or boss from Sveigakot is that it would seem to have been one of the primary bosses from the original upper shell casting which has been cut off the main body of the brooch, but further work is needed to confirm this suggestion, both in terms of the alloy used, traces of gilding which may remain in the intersteses of the metal following the extreme waethering and the nature of the interior of the boss. If traces of solder survive on the inner face, it could have served as a secondary boss, but if this is lacking it would appear to confirm its primary status. Its discovery within an accumulated sand layer would clearly suggest it is not in its original location. And it would normally have been recovered in association with a full brooch, or pair of brooches and in a pagan grave context.

### *Iron*

Twenty four of the recovered finds units are of iron. Of these 11 are nails or parts of nails (xx percentage), and nine are currently of indeterminate nature (xx percentage) and of the remaining items, SF 22 from the fill of the sunken feature 1066 is a dense slightly curving piece which may have been originally an iron bar for reworking (an ingot?), SF 57 is a roughly square rivet plate or rove (with probable traces of the beaten nail end on its outer surface), SF 69 the complete handle from an iron cauldron or similar vessel and SF 71 possibly the working end of a chisel or punch.

The 11 nails from the overall assemblage are of varying forms, ranging from a squared tapering shank (now lacking the head) SF 5 from the floor context 561 to highly corroded nails with broad shanks and currently indeterminate-form head (eg SF 15 from 561 and SF 36 from context 1131, turf collapse). Where heads are clearly visible without the aid of xrays they appear flat with the shanks centrally placed, although some distortion of the head through hammering or removal from wood has taken place in a few examples, such as SF 4 from 1029 and SF 30 from 1106, a surface layer. Where the virtually complete length of nail survives, they are within the

range identified from the Viking period by Ottaway´s study of the nails from York (Ottaway 1992, 608, fig 253)

Context 561, the floor deposit of the structure S4 includes 4 nails and 3 indeterminate fragments. Additional iron finds were recovered from posthole and stakehole fills 1151 (SF 43), 1161 (SF 49), 1188 (SF 57), 1170 (SF 60) and 1203 (SF 64). At this stage it is considered most likely that these items had fallen into voided post holes rather than having being deliberately deposited. The three finds from the sheet midden (1214) , include two indeterminate pieces (SF 66 and 70), but also a complete and distinctive find of a vessel handle (SF 69). There are a number of suitable parallels for this item from Viking age contexts (of the type illustrated in Arge 2000, 159 for an iron vessel) or from Kaupang in Norway for a steatite vessel ( Blindheim *et al* 1981, pl 19). An Icelandic example was published by Arnadottir from Kúabót í Álftaveri (1986,78). It is becoming increasingly common to identify tools amongst the iron debris recovered on sites, and it is possible that SF 71 from turf debris 1203 may be such an item. It is dense and substantial, and could have originally functioned as a chisel end or a punch (cf Eldjárn and Friðriksson 2000, 408 fig 341). In the important publication of the iron debris from excavations of Viking levels in York, England, Ottaway identifies several such tools (eg Ottaway 1992, 518, fig 198 find 2232, a tanged punch , or op cit, 516, fig 197 , number 2217 an untanged punch) These are considered to be a tool of the metal worker. The suggested identification of SF 22 from context 1066 as an ingot fragment, which has had a section cut from it, may be additional support for the identification of on site metalworking which is indicated by the recovery of a small number of items of industrial debris. This group comprises 8 finds, from as many contexts, but including floor deposit 561, surface layers 001 and 1106 and 1084 which is an ash deposit..

*Handle? SVK03-069*

In terms of the overall condition of this collection, most pieces are highly corroded and somewhat fragmentary, although not so corroded in most cases that it is not possible to ascribe a function. Items from surface collection or from most of the items from the sheet midden are in addition weathered and have smoothed surfaces. In a

small number of cases, such as SF 15 , SF 36 and SF 59 it will be necessary to x-ray the item to confirm the form of both shank and head. In most other cases, the corrosion is not disfiguring enough to mask the object form.

### *Bone, antler and whalebone*

There are six artefcats within these categories of material: an antler clamp fragment (SF 19), a broken pinshaft (SF 65) and a possible pre-form pin/needle (SF 55), both of animal bone, a possibly shaped but ideterminate rib bone fragment (SF 58), a gaming piece of fishbone (SF 11) and a worked piece of whalebone (SF24). In general all pieces are in good condition and in the case of the antler clamp and fishbone gaming piece in excellent condition.

SF 19, the antler clamp fragment is from context 1066, the fill of the sunken feature. It forms approximately half of one side of the two-piece clamp which would have been used for holding fast a piece of material, perhaps bone or even metal to allow working. This piece is broken at the point at which it was loosely rivetted and the form is gently tapering. It is probable that this formed the lower section of the clamp. This is a common find from several periods, and a sequence of such tools is illustrated in Eldjárn and Friðriksson (2000, 408, fig 340, note especially top left). They are known from several Viking period contexts (MacGregor et al 1999, 1996-7 and references therein).

*Bone pin SVK03-065*

The pin/needle finds, SF 65 context 2014 from the sheet midden and the possible pre-form pin or needle, SF 55 from context1183 the fill of posthole 1184 are ubiquitous discoveries, and although SF 65 is well worked, the missing head does not allow further comment. Such items are easily made and would have served numerous functions, but they remain difficult to date specifically.

SF 11 from the floor surface 561 is a simply crafted pointed gaming piece which appears to have been made from a haddock cleithrum. This is one of a series of such finds, including both a complete and a partially manufactured example from previous excavations at Sveigakot (Area T, context 055, dated by C14 to the period 950-1000) and a king piece from Steinbogi (from a context dated by C14 to 1150-1250). These are currently being studied as part of a wider consideration of exploitation of Icelandic resources in the Viking period (Batey forthcoming).

*Gaming piece SVK03-011*

The fragment of whalebone, SF 24 from context 1075 (turf) has been shaped into a rough arc and the complete thinner edge is tapering. Its original function is unclear, although it may have been part of a whalebone vessel.

## *Glass*

*Bead SVK-067*

This category of material comprises a single blue glass bead, SF 67 from context 2014, sheet midden. There have been several finds of glass beads from Icelandic conetxts, both pagan graves and settlements and they are also a common find as loose or stray finds. The piece is of mid opaque blue glass and of very simple form. Several comparable examples are illustrated by Eldjárn and Friðriksson (2000, 386 fig 301) where several other types are also discussed. It is very likely that this type is of Viking period date based on these comparanda.

## *Stone*

The 32 stone finds from the site include possible loom weights as well as whetstones, steatite vessel fragments, a steatite gaming piece, a possible polishing stone and a possible stone gaming piece. Numerically dominant however are a number of finds of miscellaneous stones, some considered to be manuports and also quartz pebbles, some

13 finds units overall. These are of little intrinsic importance, but maybe significant in the contexts in which they were recovered, for example SFs 44, 45, 47, 50, 51, 54, 56 and 61 that were all located in post or stake holes. Selection of interesting stones is not a new phenomenon and it is possible to suggest deliberate selection of these stones for these contexts. However, it would be difficult to confirm that they were gaming pieces or counters since they could have fulfilled such a function as needed.

There are three whetstone finds, SF 8 from 1035 a mixed sandy layer, SF 20 from 1066 the fill of the sunken feature and SF 1 from topsoil 001. SF 1 is one end of a substantial whetsone which resembles Norwegian from the Eidsborg series (Alsvik pers comm) and the other two are from small more personal whetstones, both different stoens in appearance but fine-grained. These will need to be cosidered by a geologist, but a Norwegian origin is very likely. The large whetstone would have functioned for sharpening knives and such like, whereas the smaller pieces could have been used to keep needles sharpened.

*Outside of wessel SVK03-048*

*Inside of wessel SVK-048*

There are three steatite finds from these excavations. SF 48 was recovered from context 1166, the fill of posthole 1167 and comprises two conjoining fragmnets of a lug-handled steatite vessel. It has external sooting and appears clean on the inner face which is very smoothly worked. There are indications of the orginal presence of an iron rivet just below the rim at one point, and in light of the presence of the lugged handle this is more likely to represent a repair than a support for a handle for this bowl shaped vessel. This is undoubtedly an import from Scandinavia. In her study of the steatite from Gamlebyen, Oslo, Lossius illustrates a number of vessel forms which have such lug handles, and although not identical, her form B which has no long handle just two small lugs and a smooth inner and outer surface, is the closest parallel (Lossius 1979, 65 fig. 2). She assigns a wide date range for this

form unfortunately, but in view of the fact that this is considered a primary context at Sveigakot, an earlier dating ought to be suggested rather than later in the Viking age.

*Gaming piece SVK-052*

The complete domical gaming piece of steatite, has been remodelled from a vessel sherd (indicated by the discolouration on the flat base). This is SF 52 from context 1178, the fill of posthole 1188, and its primacy in chronological terms on the site would thus be suggested. It has a simple form and is comparable to the fish bone example noted above and to the larger stone find (of red stone yet to be identified, possibly cf Eldjárn and Friðriksson 2000, 608)) which is one of the two items SF 12 from context 1041 a floor deposit. It is possible that some of the pebbles noted below may also have been aded to the gaming set, although positioned in a post hole this would not suggest use rather that it was placed deliberately or in fact had fallen in from the floor level.


*Spindle whorl SVK03-021*

A complete steatite spindle whorl, SF 21 from context 1070 a mixed midden and turf deposit has a somewhat wrong appearance. This may have been through use but it could have occurred in post-deposition as the layer was exposed perhaps. In form it is circular with a drilled perforation which is slightly off-centre. Its sides are irregularly rounded and in appearance it would appear that it was recrafted from another piece, possibly a vessel sherd although there are no surviving signs of that incarnation. The material would have been originally a Norwegian import, but it could have been manufactured at Sveigakot. In Oye´s categorisation of spindle whorls, this would equate with a type F "flat on top and underneath but...rounded, slightly convex sides"(Oye 1988, 38), but she would assign a date in the 12th-13th centuries in the chronology at Bryggen. This may be later for

the type in Iceland, particularly in view of the home-made possibilities here and also for differences which cannot be understood at this time in the materials being worked.

Six stone loomweights were identified in excavation, two from surface layer 1106 (SF 29 and 32), SF 16 from context 001 and SF 41 from context 1144 (turf debris) are all simple waterworn pebbles with enhanced full natural perforations. These could have been easily utilised in this form. However SF 63 from context 2001 and SF 9 from 1038, although identified on site as loom weights, are unlikely to have functioned in this manner due to the incomplete nature of the natural perforations. Slightly more worked examples of perforated stone loomweights used for a warp-weighted loom have been discussed by Oye (1988, 59-68).

Despite the relatively small size of this assemblage, there are a number of finds which can be considered to be culturally diagnostic, such as the steatite vessel, the copper alloy boss from the oval brooch, as well as several items which could span a large timerange, such as the spindle whorl or the loom weights. However, it is clear that in the case of the fragments of whetstones which survive contacts with Norway in particular were still to be remembered, even if some time had elapsed since the original arrival of the pieces themselves. The recovery of a number of finds from the post and stake holes is perplexing, and ritual deposition cannot be ruled out, although neither can the accidental incorporation in the fill of discarded material at the infilling of the postholes. The use of the floor, particularly the context 561, with iron nails, indeterminate iron pieces, bone gaming piece and quartz pebbles and sheet midden with bone pin fragments, a bead and iron handle amongst other items are all indicative of activity areas. Increased use on the floor would be expected than perhaps ontop of the midden, but this is worth examining throughout the rest of the ecofactual evidence from these contexts.

## *Bibliography*


Árnadóttir, L 1986
Kúabót í Álftaveri. *Árbók hins íslenzka fornleifafélags 1986*, 7 ff

Batey, C forthcoming
Worked haddock bone from Iceland, an ongoing tradition? *Proceedings of the 4th International Worked Bone Group, Tallinn, Estonia 2003*

Blindheim, C, B Heyerdahl-Larsen and R L Tollnes 1981
*Kaupang-Funnene Bind 1*. Norske Oldfunn XI, Universitetets Oldsaksamling

Eldjárn, K and Friðriksson, A 2000
*Kuml og Haugfé úr heiðnum sið á Íslandi*. Mál og menning

Jansson, I 1985
Ovala spannbucklor. En studie av vikingatida standardsmycken med utgangspunkt fran Bjorko – fynden. Uppsala

Lossius, S M 1979
Klebermaterialet, in E Schia ed 1988, 64-71

MacGregor, A; A J Mainman and NSH Rogers 1999
*Craft, Industry and Everyday Life: Bone, Antler, Ivory and Horn from Anglo-Scandinavian and Medieval York*. The Archaeology of York. The Small Finds 17/12., Council for British Archaeology

Oye, I 1988
*Textile Equipment and its Working Environment, Bryggen in Bergen c1150-1500.* The Bryggen Papers. Main Series Vol 2.

Ottaway, P 1992

*Anglo-Scandinavian Ironwork from Coppergate. The Archaeology of York.* The Small Finds 17/6, Council for British Archaeology

Schia, E ed. 1988
*Feltene "Oslogate 3 og 7" bebyggelsesrester og funngrupper. De Arkeologiske Utgravninger i Gamlebyn, Oslo,* , Ovre Ervik

Welander, R D E; C Batey and T G Cowie 1987
A Viking burial from Kneep, Uig, Isle of Lewis. *Proceedings of the Society of Antiquaries of Scotland,* 117, 149-74

Orri Vésteinsson

# Samantekt

Grafið var í 5 vikur á Sveigakoti sumarið 2003, frá 14. júlí til 15. ágúst. Við uppgröftinn unnu Dr. Orri Vésteinsson (verkefnisstjóri), prófessor Przemysław Urbańczyk (stjórnandi á svæði MT), Guðrún Alda Gísladóttir, Robert Zukowski, Magdalena Natuniewicz-Sekuta og Johan-Terje Hole (aðstoðarmenn), og nemendurnir Stefán Ólafsson (HÍ), Ramona Harrison (CUNY). Í skemmri tíma unnu nemendurnir Matthew Brown (CUNY), Hrönn Konráðsdóttir (HÍ) og aðstoðarmaðurinn Mogens Høegsberg. Samhliða uppgrefti sá Dr. Colleen Batey um frágang gripa.

Eins og fyrri ár var fyrst og fremst grafið á tveimur svæðum, í skála norðantil á bæjarstæðinu og í jarðhúsaþyrpingu syðst á svæðinu. Einnig voru könnuð mannvirki á milli svæðanna tveggja.

Lokið var við uppgröft skálans. Neðsta gólfið í honum var fjarlægt í 50 sm reitum og allt tekið sem sýni til fleytingar. Einnig voru tekin allmörg örformgerðarsýni. Undir gólfinu komu í ljós ummerki um elsta byggingarstig skálans, leifar af elstæði og stoðarholur. Gólfið lá yfir stoðarholunum, sem sýnir að upphafelgu stoðirnar hafa verið teknar upp og settir undir þær steinar. Þröskuldur sem var greinilegur í gólfinu, skammt austan við eldstæðið, reyndist vera yngri breyting og hafði skilrúm upphaflega verið um 1,5 m austar, á móts við dyrnar á suðurlangvegg.

Stétt sem grafin hafði verið fram 2001-2002 og lá til austurs frá skálanum hafði verið talin geta verið flór í fjósi. Í ljós kom að stéttin hefur sennilega ekki verið inni í húsi heldur hefur legið frá dyrum á gaflinum á yngsta skálanum. Þegar ská skáli var byggður, í tóft þess elsta, var austurgaflinn á elstu byggingunni rifinn og yngra húsið því haft um 2 m styttra. Það hafði dyr á gaflinum og frá þeim lá stéttin og er nú talið að hún hafi verið undir beru lofti. Hinsvegar gæti hafa staðið bygging á þessu svæði áður en stéttin var lögð því allmörg gólf- og yfirborðslög fundust, sem og eldstæði, einkum við NA horn stéttarinnar. Þessi lög ná yfir um 5x5 m svæði en engin merki fundust um veggi eða stoðarholur og er því hugsanlegt að þarna hafi ekki verið hús undir þaki heldur e.k. athafnasvæði.

Í ljós kom að elsti veggurinn í skálanum er byggður beint ofan á gjóskulag frá um 950. Undir því og skálanum eru allmargar stórar óreglulegar gryfjur og a.m.k. eitt eldstæði sem virðist hafa verið utandyra. Það eldstæði er elsta mannvirkið sem grafið hefur verið fram á Sveigakoti og er frá tímabilinu 871 – 950.

Önnur stétt kom í ljós sunnan við skálann og hafði hún verið lögð í fláa sem skorinn hafði verið í bakkann sem húsin stóðu út á. Stéttin er eldri en skálinn og tengist sennilega byggingu sem hefur staðið fast sunnan við skálann. Ummerki um norðausturhorn þeirrar byggingar komu í ljós en ekki vannst tími til að kanna hana nánar. Hún er niðurgrafin og meir en 2 m breið og 4 m löng. Um 10 m sunnan við hana er önnur niðurgrafin bygging, sem virðist vera um 8 m löng og tæplega 4 m breið. Grafið var ofan af þeirri byggingu en ekki farið ofan í hana. Yfir suðausturhluta þeirrar byggingar voru allþykk öskulög með talsverðu af beinum og gripum. Þessi lög eru nyrstu angarnir af öskuhaugnum M sem að mestu var grafinn upp 1999-2001. Það að hugurinn er yfir fyllingunni í byggingunni bendir til að hún sé með þeim elstu á Sveigakoti.

Á suðurenda svæðisins kom í ljós að jarðhúsið sem grafið var upp 2001-2002 var í raun bakherbergi á miklu stærra húsi, niðurgrafinni byggingu, um 8x3,5 m með eldstæði í miðju gólfi. Fast vestan við vesturgafl jarðhússins var grafin upp þríhyrnd hola með lagi í botni sem svipar til laga sem fundust í gryfjunum undir skálanum.

Allmargir gripir fundust, þ.á.m. hnappur af kúptri bronsnælu og járnhalda af fötu. Áframhaldandi rannsóknir munu beinast að byggingunum tveimur sunnan við skálann.

# Appendices

## Appendix 1. Register of excavated contexts

| Context No | Type | GroupNo | Area | Brief Description |
|---|---|---|---|---|
| 561 | Deposit | 0 | S | Floor |
| 624 | Deposit | 0 | S | Pavement |
| 864 | Deposit | 0 | S | = mixed turf under 1155, not excav. in 2003 |
| 1021 | Deposit | 1071 | S | Fill of hearth 1022 |
| 1022 | Structure | 1071 | S | Hearth |
| 1023 | Cut | 0 | S | Stakeholes in S5 |
| 1026 | Deposit | 0 | MT | Midden |
| 1027 | Deposit | 0 | MT | Midden |
| 1028 | Deposit | 0 | T | 1028=712 |
| 1029 | Deposit | 0 | T | Dark brown with ashes |
| 1030 | Deposit | 0 | MT | Posthole |
| 1031 | Deposit | 0 | T | 1031=744 |
| 1032 | Deposit | 0 | T | Dark brown layer |
| 1033 | Deposit | 0 | T | 1033=896 |
| 1034 | Deposit | 0 | T | 1034=897 |
| 1035 | Deposit | 0 | MT | Soil w. lenses of aeolian |
| 1036 | Deposit | 0 | T | 1036=712 |
| 1037 | Deposit | 0 | MT | Windblown sand / partly excavated in 2001 |
| 1038 | Deposit | 0 | S | Floor layer in S3 |
| 1039 | Deposit | 0 | S | Ash dump |
| 1040 | Deposit | 0 | S | Ash dump |
| 1041 | Deposit | 0 | S | Floor layer in S3 |
| 1042 | Deposit | 0 | N | Sheet midden |
| 1043 | Deposit | 0 | MT | Light brown |
| 1044 | Deposit | 0 | MT | 1044=709 |
| 1045 | Deposit | 0 | N | Aeolian accumulation |
| 1046 | Deposit | 0 | MT | Brown and orange mixed |
| 1047 | Deposit | 0 | MT | Very dark brown to black |
| 1048 | Deposit | 0 | MT | Under midden 1016 1027 |
| 1049 | Deposit | 0 | MT | Under midden 1016 1027 |
| 1050 | Deposit | 0 | N | Midden |
| 1051 | Deposit | 0 | S | Ash and charcoal deps in S3 |
| 1052 | Deposit | 0 | MT | posthole |
| 1053 | Deposit | 0 | MT | posthole |
| 1054 | Deposit | 0 | N | Dark brown with lighter brown turf collapse |
| 1055 | Deposit | 0 | S | Fill of pit 1056 |
| 1056 | Cut | 0 | S | Pit at E end of S3 |
| 1057 | Deposit | 0 | N | Turf layer with charcoal |
| 1058 | Deposit | 0 | S | Floor -same as 1041 |

| Context No | Type | GroupNo | Area | Brief Description |
|---|---|---|---|---|
| 1059 | Deposit | 0 | MT | Collapsed turf wall |
| 1060 | Deposit | 0 | S | Turf collapse / N-wall of S3 |
| 1061 | Deposit | 0 | S | Ash deposit in NE corner of S3 |
| 1062 | Deposit | 0 | S | Ash deposit under 561 |
| 1063 | Deposit | 0 | S | Fill of hearth 1064 |
| 1064 | Cut | 0 | S | Hearth under 624 |
| 1065 | Deposit | 0 | N | Thin midden with turf |
| 1066 | Deposit | 0 | MT | Fill of sunken feature |
| 1067 | Cut | 1071 | S | Cut for hearth 1071 |
| 1068 | Group | 1068 | S | Hearth |
| 1069 | Deposit | 1068 | S | Fill in hearth |
| 1070 | Deposit | 0 | N | Midden and turf |
| 1071 | Group | 1071 | S | Hearth complex under 624 |
| 1072 | Deposit | 1071 | S | Fill in hearth1071 |
| 1073 | Deposit | 1068 | S | Fill E of hearth 1069 under 561, group 1068 |
| 1074 | Deposit | 1068 | S | Fill E of hearth group 1068 |
| 1075 | Deposit | 0 | N | Turf |
| 1076 | Structure | 1068 | S | Hearth group 1068 |
| 1077 | Structure | 0 | S | SE corner of wall of S4 |
| 1078 | Deposit | 1071 | S | Lower fill in hearth complex 1071 |
| 1079 | Deposit | 1068 | S | Fill in hearth group 1068 |
| 1080 | Structure | 1068 | S | Stones in hearth (group 1068) |
| 1081 | Deposit | 1068 | S | Fill in hearth (group 1068) |
| 1082 | Structure | 1068 | S | Stones in NW corner of hearth (group 1068) |
| 1083 | Structure | 1068 | S | Latest stone in hearth (group 1068) |
| 1084 | Deposit | 1068 | S | Ash and charcoal |
| 1085 | Structure | 1068 | S | Hearth structure, group 1068 |
| 1086 | Structure | 1068 | S | Stones in NW corner of hearth II |
| 1087 | Deposit | 1068 | S | Fill in depression in W end of hearth 1068 |
| 1088 | Cut | 1068 | S | Cut in W end of hearth, group 1068 |
| 1089 | Deposit | 1068 | S | Charcoal rich ash layer |
| 1090 | Deposit | 0 | S | Lump of turf |
| 1091 | Deposit | 0 | N | Turf collapse |
| 1092 | Deposit | 0 | S | Fill in hearth (group 1068) |
| 1093 | Deposit | 0 | S | Turf debris between S4 and S3 |
| 1094 | Deposit | 0 | T | Posthole fill |
| 1095 | Deposit | 0 | T | Ashes |
| 1096 | Deposit | 0 | T | Mixed ash (?) with turf, organic |
| 1097 | Cut | 1068 | S | Cut for hearth |
| 1098 | Deposit | 0 | T | Dark brown layer |
| 1099 | Structure | 1068 | S | Earliest structure of hearth |
| 1100 | Deposit | 0 | N | Turf debris |
| 1101 | Deposit | 0 | S | V-950 in situ |
| 1102 | Structure | 0 | S | Wood remains of threshold in doorway of S4 |
| 1103 | Deposit | 0 | S | Fill of 1104 |
| 1104 | Cut | 0 | S | Cut for a fire pit |
| 1105 | Deposit | 0 | S | Ash and charcoal |

| Context No | Type | GroupNo | Area | Brief Description |
|---|---|---|---|---|
| 1106 | Deposit | 0 | S | Surface layer |
| 1107 | Deposit | 0 | S | Posthole |
| 1108 | Deposit | 0 | S | Fill in cut 1111 |
| 1109 | Deposit | 0 | S | Ash lens |
| 1110 | Cut | 0 | S | Posthole |
| 1111 | Cut | 0 | S | Cut |
| 1112 | Deposit | 0 | S | Ash layer |
| 1113 | Deposit | 0 | S | Posthole |
| 1114 | Cut | 0 | S | Posthole |
| 1115 | Deposit | 0 | S | Lensed floor layer |
| 1116 | Deposit | 0 | S | Posthole |
| 1117 | Cut | 0 | S | Posthole |
| 1118 | Deposit | 0 | T | Gray-brown layer |
| 1119 | Deposit | 0 | S | Posthole |
| 1120 | Cut | 0 | S | Posthole |
| 1121 | Deposit | 0 | N | Turf from bog |
| 1122 | Deposit | 0 | S | Fill of pit 1123 |
| 1123 | Cut | 0 | S | Pit |
| 1124 | Deposit | 0 | S | Charcoal fill of pit 1125 |
| 1125 | Cut | 0 | S | Pit |
| 1126 | structure | 0 | S/N | Part of turf wall of longhouse = 1015 |
| 1127 | Deposit | 0 | S | Pink turf in SE corner of S5 |
| 1128 | Deposit | 0 | S | Black charcoal ash layer |
| 1129 | Deposit | 0 | S | Fill at bottom of [1128] |
| 1130 | Cut | 0 | S | Cut for fill [1129] |
| 1131 | Deposit | 0 | S | Upcast or turf collapse |
| 1132 | Deposit | 0 | S | Charcoal layer |
| 1133 | Cut | 0 | S | Cut for [1132] |
| 1134 | Deposit | 0 | S | Fill in P-hole ? |
| 1135 | Cut | 0 | S | Cut for P-hole ? [1134] |
| 1136 | Deposit | 0 | S | Turf debris under V- 950 |
| 1137 | Deposit | 1140 | S | Fill in hearth [group 1140] |
| 1138 | Deposit | 0 | N | Truncation area |
| 1139 | Deposit | 0 | N | Natural |
| 1140 | Group | 1140 | S | Hearth |
| 1141 | Cut | 1140 | S | Hearth cut [group 1140] |
| 1142 | Deposit | 0 | N | Part of midden w. turf |
| 1143 | Deposit | 0 | N | Turf sheet |
| 1144 | Deposit | 0 | S | Turf debris south of S4 |
| 1145 | Deposit | 0 | P | Dark brown layer under topsoil |
| 1146 | Deposit | 0 | N | Turf debris w. organic matter |
| 1147 | Deposit | 0 | S | Stakeholes by bench on S-side |
| 1148 | Cut | 0 | S | Stakeholes by bench on S-side |
| 1149 | Deposit | 0 | S | Fill of post-hole 1150 |
| 1150 | Cut | 0 | S | Post-hole |
| 1151 | Deposit | 0 | S | Fill of posthole 1152 |
| 1152 | Cut | 0 | S | Posthole |

| Context No | Type | GroupNo | Area | Brief Description |
|---|---|---|---|---|
| 1153 | Deposit | 0 | S | Fill of posthole 1154 |
| 1154 | Cut | 0 | S | Posthole |
| 1155 | Deposit | 0 | S | Layer of sand south of S4 |
| 1156 | | 0 | N | Natural = 675 |
| 1157 | Deposit | 0 | S | Fill in shallow cut 1158 - threshold |
| 1158 | Cut | 0 | S | Cut for threshold |
| 1159 | Deposit | 0 | S | Fill in stakehole 1160 |
| 1160 | Cut | 0 | S | Stakehole |
| 1161 | Deposit | 0 | S | Fill in 3 stakeholes |
| 1162 | Cut | 0 | S | Cut for 3 stakeholes |
| 1163 | Deposit | 0 | N | Compact turf layer - wall? |
| 1164 | Deposit | 0 | S | Fill in posthole 1165 |
| 1165 | Cut | 0 | S | Posthole |
| 1166 | Deposit | 0 | S | Fill in posthole 1167 |
| 1167 | Cut | 0 | S | Posthole |
| 1168 | Deposit | 0 | S | Floor / surface layer in doorway of S4 |
| 1169 | Deposit | 0 | S | Fill in posthole 1170 |
| 1170 | Cut | 0 | S | Posthole |
| 1171 | Deposit | 0 | S | Turf fill in doorway of S4 |
| 1172 | Cut | 0 | S | Posthole in doorway of S4 |
| 1173 | Deposit | 0 | S | Fill in posthole 1174 |
| 1174 | Cut | 0 | S | Posthole |
| 1175 | Deposit | 0 | S | Fill in posthole 1176 |
| 1176 | Cut | 0 | S | Posthole |
| 1177 | Deposit | 0 | S | Turf debris and stones under S-wall of S4 |
| 1178 | Deposit | 0 | S | Fill in posthole 1188 |
| 1179 | Deposit | 0 | S | Fill in posthole 1180 |
| 1180 | Cut | 0 | S | Posthole |
| 1181 | Deposit | 0 | S | Fill in posthole 1182 |
| 1182 | Cut | 0 | S | Posthole |
| 1183 | Deposit | 0 | S | Fill in posthole 1184 |
| 1184 | Cut | 0 | S | Posthole |
| 1185 | Deposit | 0 | S | Fill in posthole 1186 |
| 1186 | Cut | 0 | S | Posthole |
| 1187 | Deposit | 0 | S | Widespread pink organic material under S3-S4 |
| 1188 | Cut | 0 | S | Posthole |
| 1189 | Deposit | 0 | S | Fill in posthole 1190 |
| 1190 | Cut | 0 | S | Posthole |
| 1191 | Deposit | 0 | S | Fill in posthole 1192 |
| 1192 | Cut | 0 | S | Posthole |
| 1193 | Deposit | 0 | S | Fill in posthole 1194 |
| 1194 | Cut | 0 | S | Posthole |
| 1195 | Deposit | 0 | S | Ash deposit under 1187 - fill of 1197 |
| 1196 | Deposit | 0 | S | Charcoal dump - fill of 1199 |
| 1197 | Structure | 0 | S | Hearth |
| 1198 | Cut | 0 | S | Posthole under fill 1191 |
| 1199 | Cut | 0 | S | Cut for charcoal dump 1196 |

| Context No | Type | GroupNo | Area | Brief Description |
|---|---|---|---|---|
| 1200 | Structure | 0 | N | Pavement |
| 1201 | Cut | 0 | S | Cut for Hearth 1197 |
| 1202 | Deposit | 0 | S | Fill in cut 1207 |
| 1203 | Deposit | 0 | S | Fill in posthole 1204 |
| 1204 | Cut | 0 | S | Posthole |
| 1205 | Deposit | 0 | S | Reddened soil under 1187 |
| 1206 | Cut | 0 | S | Ditch or channel under doorway of S4 |
| 1207 | Cut | 0 | S | Cut for fill 1202 |
| 1208 | Deposit | 0 | P | Turf debris |
| 1209 | Deposit | 0 | S | Fill in stakeholes 1210 |
| 1210 | Cut | 0 | S | Stakeholes under S3 |
| 1211 | Deposit | 1212 | S | Fill in hearth 1212 |
| 1212 | Group | 1212 | S | Hearth |
| 1213 | Cut | 1212 | S | Cut for Hearth 1212 |
| 1214 | Deposit | 0 | P | Sheet midden |
| 1215 | Deposit | 0 | P | Patch of light-grey silt |

# Appendix 2. Small finds register

| FindsNo | Context | Object | Material | Brief description |
|---|---|---|---|---|
| 1 | 0 | Whetstone | Stone | 349.08 / 898.67 - 284.86 masl - in loose soil at edge of excavation |
| 2 | 561 | | Iron | Sq 4 |
| 3 | 1029 | | Stone | 891/309 - from sieve |
| 4 | 1029 | Nail | Stone | 891/309 - in loose soil |
| 5 | 561 | Nail | Iron | Sq 15 |
| 6 | 561 | Nail | Iron | Sq 56 |
| 7 | 1046 | Nail | Iron | 310.01 / 897.79 - 284.62 masl |
| 8 | 1035 | Whetstone | Stone | 310.00 / 897.63 - 284.77 masl |
| 9 | 1038 | Loomweight | Stone | |
| 10 | 561 | | Stone | Sq 39-40 |
| 11 | 561 | Gaming Piece | Bone | Sq 54 Made of haddock cleithrum |
| 12 | 1041 | | Stone | 2 pieces of red sandstone - partially worked |
| 13 | 1045 | Brooch | Copper alloy | 335.59 / 892.57 - 284.57 masl. Knob of oval brooch |
| 14 | 561 | | Iron | Sq 36 |
| 15 | 561 | Nail | Iron | Sq 45 |
| 16 | 1 | Loomweight | Stone | 344.50 / 910.95 - on surface |
| 17 | 1046 | Nail | Iron | 312.35 / 897.37 - 284.88 masl |
| 18 | 1066 | | Stone | 310.49 / 899.67 - 284.90 masl red sandstone fragm |
| 19 | 1066 | | Bone | 312.18 / 896.12 - 284.76 |
| 20 | 1066 | Whetstone | Stone | 307.52 / 898.39 - 284.82 |

| FindsNo | Context | Object | Material | Brief description |
|---|---|---|---|---|
| 21 | 1070 | Spindle Whorl | Steatite | 332/890 - whole whorl |
| 22 | 1066 | | Iron | 307.81 / 898.95 - 284.81 - top of layer |
| 23 | 561 | | Iron | Sq 41 |
| 24 | 1075 | Whale bone | Bone | |
| 25 | 561 | | Iron | Sq 42 |
| 26 | 1084 | | Iron | 342.80 / 899.00 |
| 27 | 561 | | Stone | 342.75 / 899.25 - 284.81 masl |
| 28 | 1109 | | Iron | 343.13 / 901.37 |
| 29 | 1106 | Loomweight | Stone | |
| 30 | 1106 | Nail | Iron | |
| 31 | 1122 | | Copper alloy | |
| 32 | 1106 | Loomweight | Stone | |
| 33 | 1100 | | Slag | |
| 34 | 1106 | | Slag | |
| 35 | 1106 | | Stone | Natural pebbles |
| 36 | 1131 | Nail ? | Iron | |
| 37 | 1138 | | Stone | |
| 38 | 1 | Nail | Iron | |
| 39 | 1137 | Loomweight | Stone | Broken with drilled hole |
| 40 | 1144 | | Slag | Smelting slag |
| 41 | 1144 | Loomweight | Stone | |
| 42 | 1147 | Gaming Piece | Stone | 3 stones at base of posthole |
| 43 | 1151 | | Iron | in posthole |
| 44 | 1151 | Gaming Piece | Stone | 8 stones in bottom of postholes |
| 45 | 1147 | Gaming Piece | Stone | at bottom of stake hole |
| 46 | 864 | | Slag | smithying slag |
| 47 | 1147 | Gaming Piece | Stone | in posthole |
| 48 | 1166 | Vessel | Steatite | Fragm of vessel with handle - in posthole |
| 49 | 1161 | | Iron | in posthole |
| 50 | 1175 | Gaming Piece | Stone | in posthole |
| 51 | 1181 | Gaming Piece | Stone | in posthole |
| 52 | 1178 | Gaming Piece | Steatite | in posthole |
| 53 | 1177 | | Slag | |
| 54 | 1183 | | Stone | pebble in a posthole |
| 55 | 1183 | Pin | Bone | broken |
| 56 | 1178 | Gaming Piece | Stone | in posthole |
| 57 | 1178 | Nail | Iron | more than 1 |
| 58 | 1195 | | Bone | Worked bone |
| 59 | 561 | Nail | Iron | |
| 60 | 1170 | | Iron | Thin triangular Fe obj |
| 61 | 1170 | Gaming Piece | Stone | in posthole |
| 62 | 561 | | Stone | white stone pebble |

| FindsNo | Context | Object | Material | Brief description |
|---|---|---|---|---|
| 63 | 1211 | Loomweight | Stone | more than 1 |
| 64 | 1203 | | Iron | at bottom of posthole |
| 65 | 1214 | Pin | Bone | 325.65 / 900.65 - 284.85 |
| 66 | 1214 | | Iron | 326.00 / 901.04 |
| 67 | 1214 | Bead | Glass | 326.64 / 901.68 - 284.87 |
| 68 | 1214 | | Stone | 325.48 / 901.04 |
| 69 | 1214 | Handle | Iron | Bucket handle |
| 70 | 1214 | | Iron | 326.70 / 901.50 |
| 71 | 1208 | | Iron | 325.40 / 899.40 |
| 72 | 1 | Slag | Iron | 897 / 325 (P) |
| 73 | 1 | | Stone | 897 / 325 (P) - worked sandstone |
| | | | | |

# Appendix 3. Bones register

| Finds no | context | Material | Notes |
|---|---|---|---|
| 101 | 561 | Bone | unworked animal bone from floor, start of excav |
| 102 | 1026 | Bone | unworked animal bone, 895-896/312 |
| 103 | 1047 | Bone | unworked animal bone, 894/312 |
| 104 | 0 | | VOID |
| 105 | 1030 | Bone | unworked animal bone from posthole, 313.7/894.83 |
| 106 | 1029 | Bone | unworked animal bone from midden, 308-9/891 |
| 107 | 1027 | Bone | unworked animal bone from midden, 894-5/313 |
| 108 | 1 | Bone | unworked animal bone from surface cleaning of N |
| 109 | 561 | Bone | unworked animal bone from cleaning of floor |
| 110 | 561 | Bone | unworked animal bone from floor, sq. 16 |
| 111 | 1038 | Bone | unworked sheep jaw w. Teeth, SW quadr of floor |
| 112 | 1 | Bone | unworked animal bone from surface cleaning of N |
| 113 | 561 | Bone | unworked animal bone from floor layer, sq. 18 |
| 114 | 561 | Bone | unworked animal bone from floor layer, sq. 25 |
| 115 | 561 | Bone | unworked animal bone from floor layer, sq. 33 |
| 116 | 561 | Bone | unworked animal bone from floor layer, sq. 32 |
| 117 | 561 | Bone | unworked animal bone from floor layer, sq. 56 |
| 118 | 561 | Bone | unworked animal bone from floor layer, sq. 44 |
| 119 | 561 | Bone | unworked animal bone from floor layer, sq. 67 |
| 120 | 1042 | Bone | unworked animal bone, 890/332-37 |
| 121 | 1041 | Bone | unworked animal bone from floor layer |
| 122 | 561 | Bone | unworked animal bone from floor layer, sq. 72 |
| 123 | 561 | Bone | unworked animal bone from floor layer, sq. 73 |
| 124 | 561 | Bone | unworked animal bone from floor layer, sq. 69 |
| 125 | 561 | Bone | unworked animal bone from floor layer, sq. 88 |
| 126 | 1050 | Bone | unworked animal bone from midden, 332/890 |
| 127 | 1053 | Bone | unworked animal bone from posthole, 311/900 |
| 128 | 561 | Bone | unworked animal bone from floor layer, sq. 70 |
| 129 | 561 | Bone | unworked animal bone from floor layer, sq. 36 |
| 130 | 1054 | Bone | unworked animal bone from turf collapse |

| | | | |
|---|---|---|---|
| 131 | 1058 | Bone | unworked animal bone |
| 132 | 1061 | Bone | unworked animal bone |
| 133 | 561 | Bone | unworked animal bone from floor layer, sq. 46 |
| 134 | 1065 | Bone | unworked animal bone from midden, 890-95/339 |
| 135 | 1062 | Bone | unworked animal bone from floor layer, sq. 46 |
| 136 | 1021 | Bone | unworked animal bone from hearth |
| 137 | 1070 | Bone | unworked animal bone, 890/332 |
| 138 | 1066 | Bone | unworked animal bone, 894/310 |
| 139 | 561 | Bone | unworked animal bone from floor layer, sq. 41 |
| 140 | 561 | Bone | unworked animal bone from floor layer, sq. 42 |
| 141 | 1081 | Bone | unworked animal bone from hearth group 1068 |
| 142 | 561 | Bone | unworked animal bone from floor layer, sq. 45 |
| 143 | 1084 | Bone | unworked animal bone, 899.25/342.75/ z 284.81 |
| 144 | 1077 | Bone | unworked animal bone |
| 145 | 1054 | Bone | unworked animal bone, 887/332 |
| 146 | 1095 | Bone | unworked animal bone from ash dump, 890/308 |
| 147 | 1075 | Bone | unworked animal bone from clean-up of N, 890/332 |
| 148 | 1091 | Bone | unworked animal bone from turf debris, 890/332 |
| 149 | 1096 | Bone | unworked animal bone from turf debris, 890/307 |
| 150 | 1119 | Bone | unworked animal bone from posthole |
| 151 | 1118 | Bone | unworked animal bone, 890/308 |
| 152 | 1106 | Bone | unworked animal bone |
| 153 | 1100 | Bone | unworked animal bone from turf debris |
| 154 | 1115 | Bone | unworked animal bone from occupation layer |
| 155 | 1 | Bone | unworked animal bone from topsoil in P |
| 156 | 1100 | Bone | unworked animal bone from turf debris, 890/332 |
| 157 | 1142 | Bone | unworked animal bone from midden, 887/332 |
| 158 | 1145 | Bone | unworked animal bone from P |
| 159 | 1138 | Bone | unworked animal bone, 887/332 |
| 160 | 1143 | Bone | unworked animal bone, 890/337 |
| 161 | 1146 | Bone | unworked animal bone, 890/337 |
| 162 | 1146 | Bone | unworked animal bone, 889/333 |
| 163 | 1195 | Bone | unworked animal bone from ash deposit |
| 164 | 1146 | Bone | unworked animal bone, 892/334 |
| 165 | 1187 | Bone | unworked animal bone from pink organic layer |
| 166 | 1208 | Bone | unworked animal bone |
| 167 | 1211 | Bone | unworked animal bone from hearth 1212 |
| 168 | 1 | Bone | unworked animal bone from P, 897/325 |
| 169 | 1214 | Bone | unworked animal bone |
| 170 | 1054 | Bone | unworked animal bone from N, 887/332 |

# Appendix 4. Samples register

| Sample No | Context No | Grid | SampleType | ProcessType | Vol_est L | Count | Notes |
|---|---|---|---|---|---|---|---|
| 001 | 624 | | Bulk | Floatation | | 1 | soil between slabs in pavement |
| 002 | 561 | | Bulk | Chemical | 0,250 | 1 | square 1 |
| 003 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 004 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 005 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 006 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 007 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 008 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 009 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 010 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 011 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 012 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 013 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 014 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 015 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 016 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 017 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 018 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 019 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 020 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 021 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 022 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 023 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 024 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 025 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 026 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 027 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 028 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 029 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 030 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 031 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 032 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 033 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 034 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 035 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 036 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |

| Sample No | Context No | Grid | SampleType | ProcessType | Vol_est L | Count | Notes |
|---|---|---|---|---|---|---|---|
| 037 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 038 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 039 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 040 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 041 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 042 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 043 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 044 | 1023 | | Bulk | Floatation | 0,250 | 1 | peg hole fill in S5 |
| 045 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - square |
| 046 | 561 | | Bulk | Floatation | 0,250 | 1 | floor layer - square 3 |
| 047 | 561 | | Bulk | Floatation | 0,250 | 1 | floor layer - square 4 |
| 048 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 5 |
| 049 | 561 | | bulk | Floatation | 10 | 1 | floor layer - square 6 |
| 050 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 7 |
| 051 | 561 | | Bulk | Floatation | 2,5 | 1 | floor layer - square 8 |
| 052 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - square 11 |
| 053 | 1038 | | Bulk | Floatation | 10 | 1 | floor NW |
| 054 | 1038 | | Bulk | Floatation | 10 | 1 | floor NE |
| 055 | 1038 | | Bulk | Floatation | 10 | 1 | floor SW |
| 056 | 1038 | | Bulk | Floatation | 10 | 1 | floor SE |
| 057 | 1038 | | Bulk | Chemical | 0,250 | 1 | floor NW |
| 058 | 1038 | | Bulk | Chemical | 0,250 | 1 | floor NE |
| 059 | 1038 | | Bulk | Chemical | 0,250 | 1 | floor SW |
| 060 | 1038 | | Bulk | Chemical | 0,250 | 1 | floor SE |
| 061 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 2 |
| 062 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 3 |
| 063 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 4 |
| 064 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 6 |
| 065 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 8 |
| 066 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 11 |
| 067 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 9 |
| 068 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - square 9 |
| 069 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 16 |
| 070 | 561 | | Bulk | Floatation | 5 | 1 | floor layer - square 16 |
| 071 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 13 |
| 072 | 561 | | Bulk | Floatation | 10 | 2 | floor layer - square 13 |
| 073 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 20 |
| 074 | 561 | | Bulk | Floatation | 20 | 2 | floor layer - square 20 |
| 075 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 21 |

| Sample No | Context No | Grid | SampleType | ProcessType | Vol_est L | Count | Notes |
|---|---|---|---|---|---|---|---|
| 076 | 561 | | Bulk | Floatation | 2,5 | 1 | floor layer - square 21 |
| 077 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 15 |
| 078 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - square 15 |
| 079 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 14 |
| 080 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 14 |
| 081 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - square 18 |
| 082 | 561 | | Bulk | Identification | 0,250 | 1 | wood fragment - square 18 |
| 083 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 26 |
| 084 | 561 | | Bulk | Floatation | 5 | 1 | floor layer - square 26 |
| 085 | 1039 | | Bulk | Floatation | 10 | 1 | ash dump |
| 086 | 1039 | | Bulk | Chemical | 0,250 | 1 | ash dump |
| 087 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 25 |
| 088 | 561 | | Bulk | Floatation | 30 | 1 | floor layer - square 25 |
| 089 | 1040 | | Bulk | Floatation | 10 | 1 | ash dump |
| 090 | 1040 | | Bulk | Chemical | 0,250 | 1 | ash dump |
| 091 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 29 |
| 092 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - square 29 |
| 093 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 17 |
| 094 | 561 | | Bulk | Floatation | 0,250 | 1 | floor layer - square 17 |
| 095 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 33 |
| 096 | 561 | | Bulk | Floatation | 5 | 1 | floor layer - square 33 |
| 097 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 23 |
| 098 | 561 | | Bulk | Floatation | 20 | 1 | floor layer - square 23 |
| 099 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 32 |
| 100 | 561 | | Bulk | Floatation | 5 | 1 | floor layer - square 32 |
| 101 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - square 22 |
| 102 | 561 | | Bulk | Floatation | 0,250 | 1 | floor layer - square 22 |
| 103 | 1041 | | Bulk | Floatation | 10 | 1 | floor layer in S3 |
| 104 | 1041 | | Bulk | Floatation | 10 | 1 | floor layer in S3 |
| 105 | 1041 | | Bulk | Floatation | 10 | 1 | floor layer in S3 |
| 106 | 1041 | | Bulk | Floatation | 10 | 1 | floor layer in S3 |
| 107 | 1041 | | Bulk | Floatation | 10 | 1 | floor layer in S3 |
| 108 | 1041 | | Bulk | Floatation | 10 | 1 | floor layer in S3 |
| 109 | 1041 | | Bulk | Floatation | 10 | 1 | floor layer in S3 |
| 110 | 1041 | | Bulk | Chemical | 0,250 | 1 | floor layer in S3 |
| 111 | 1041 | | Bulk | Chemical | 0,250 | 1 | floor layer in S3 |
| 112 | 1041 | | Bulk | Chemical | 0,250 | 1 | floor layer in S3 |
| 113 | 1041 | | Bulk | Chemical | 0,250 | 1 | floor layer in S3 |
| 114 | 1041 | | Bulk | Chemical | 0,250 | 1 | floor layer in S3 |

| Sample No | Context No | Grid | SampleType | ProcessType | Vol_est L | Count | Notes |
|---|---|---|---|---|---|---|---|
| 115 | 1041 | | Bulk | Chemical | 0,250 | 1 | floor layer in S3 |
| 116 | 1041 | | Bulk | Chemical | 0,250 | 1 | floor layer in S3 |
| 117 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 38 |
| 118 | 561 | | Bulk | Floatation | 15 | 2 | floor layer - sq 37 |
| 119 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 27 |
| 120 | 561 | | Bulk | Floatation | 5 | 1 | floor layer - sq 27 |
| 121 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 37 |
| 122 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 30 |
| 123 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 30 |
| 124 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 34 |
| 125 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 34 |
| 126 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 43 |
| 127 | 561 | | Bulk | Floatation | 2,5 | 1 | floor layer - sq 43 |
| 128 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 47 |
| 129 | 561 | | Bulk | Floatation | 5 | 1 | floor layer - sq 47 |
| 130 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 35 |
| 131 | 561 | | Bulk | Floatation | 20 | 0 | floor layer - sq 35 |
| 132 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 51-52 |
| 133 | 561 | | Bulk | Floatation | 2,5 | 1 | floor layer - sq 51-52 |
| 134 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 31 |
| 135 | 561 | | Bulk | Floatation | 20 | 2 | floor layer - sq 31 |
| 136 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 50 |
| 137 | 561 | | Bulk | Floatation | 5 | 1 | floor layer - sq 50 |
| 138 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 28 |
| 139 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 28 |
| 140 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 56 |
| 141 | 561 | | Bulk | Floatation | 5 | 1 | floor layer - sq 56 |
| 142 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 24 |
| 143 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 24 |
| 144 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 57 |
| 145 | 561 | | Bulk | Floatation | 5 | 1 | floor layer - sq 60 |
| 146 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 60 |
| 147 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 39-40 |
| 148 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 39-40 |
| 149 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 61 |
| 150 | 561 | | Bulk | Floatation | 5 | 1 | floor layer - sq 61 |
| 151 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 67 |
| 152 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 67 |
| 153 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 44 |

| Sample No | Context No | Grid | SampleType | ProcessType | Vol_est L | Count | Notes |
|---|---|---|---|---|---|---|---|
| 154 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 44 |
| 155 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 48 |
| 156 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 48 |
| 157 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 49 |
| 158 | 561 | | Bulk | Floatation | 20 | 2 | floor layer - sq 49 |
| 159 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 66 |
| 160 | 561 | | Bulk | Floatation | 15 | 2 | floor layer - sq 66 |
| 161 | 1041 | 908.3 / 304 | Block | Micromorph | 0 | 1 | floor layer |
| 162 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 65 |
| 163 | 561 | | Bulk | Floatation | 0 | 1 | floor layer - sq 65 |
| 164 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 53-54 |
| 165 | 561 | | Bulk | Floatation | 20 | 2 | floor layer - sq 53-54 |
| 166 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 58 |
| 167 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 58 |
| 168 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 75-76 |
| 169 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 75-76 |
| 170 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 64 |
| 171 | 561 | | Bulk | Floatation | 20 | 2 | floor layer - sq 64 |
| 172 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 63 |
| 173 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 63 |
| 174 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 74 |
| 175 | 561 | | Bulk | Floatation | 20 | 2 | floor layer - sq 74 |
| 176 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 62 |
| 177 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 62 |
| 178 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 72 |
| 179 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 72 |
| 180 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 71 |
| 181 | 561 | | Bulk | Floatation | 20 | 2 | floor layer - sq 71 |
| 182 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 70 |
| 183 | 561 | | Bulk | Floatation | 20 | 2 | floor layer - sq 70 |
| 184 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 68 |
| 185 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 68 |
| 186 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 77 |
| 187 | 561 | | Bulk | Floatation | 0,250 | 1 | floor layer - sq 77 |
| 188 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 78 |
| 189 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 78 |
| 190 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 69 |
| 191 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 69 |
| 192 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 84-85 |

| Sample No | Context No | Grid | SampleType | ProcessType | Vol_est L | Count | Notes |
|---|---|---|---|---|---|---|---|
| 193 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 84-85 |
| 194 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 82 |
| 195 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 82 |
| 196 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 88 |
| 197 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 88 |
| 198 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 89 |
| 199 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 89 |
| 200 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 92 |
| 201 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 92 |
| 202 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 86 |
| 203 | 561 | | Bulk | Floatation | 0,250 | 1 | floor layer - sq 86 |
| 204 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 81 |
| 205 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 80 |
| 206 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 90 |
| 207 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 90 |
| 208 | 561 | | Bulk | Floatation | 5 | 1 | floor layer - sq 93 |
| 209 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 93 |
| 210 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 79 |
| 211 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 79 |
| 212 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 95 |
| 213 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 95 |
| 214 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 97 |
| 215 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 97 |
| 216 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 94 |
| 217 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 94 |
| 218 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 91 |
| 219 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 83 |
| 220 | 561 | | Bulk | Floatation | 20 | 2 | floor layer - sq 83 |
| 221 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 59 |
| 222 | 561 | | Bulk | Floatation | 20 | 2 | floor layer - sq 59 |
| 223 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 55 |
| 224 | 561 | | Bulk | Floatation | 15 | 2 | floor layer - sq 55 |
| 225 | 1051 | | Bulk | Chemical | 0,250 | 1 | |
| 226 | 1051 | | Bulk | Chemical | 0,250 | 1 | |
| 227 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 10 |
| 228 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 10 |
| 229 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 19 |
| 230 | 561 | | Bulk | Floatation | 15 | 2 | floor layer - sq 19 |
| 231 | 1051 | | Bulk | Floatation | 10 | 1 | |
| 232 | 561 | 900.40 / | Block | Micromorph | 0 | 1 | floor layer - sq 70 |

| Sample No | Context No | Grid | SampleType | ProcessType | Vol_est L | Count | Notes |
|---|---|---|---|---|---|---|---|
| | | 340.40 | | | | | |
| 233 | 1055 | | Bulk | Floatation | 20 | 2 | ash |
| 234 | 561 | 894.80 / 340.75 | Block | Micromorph | 0 | 1 | floor layer - sq 19 |
| 235 | 561 | 893.90 / 340.55 | Block | Micromorph | 0 | 1 | floor layer - sq 10 |
| 236 | 561 | 902.40 / 342.75 | Block | Micromorph | 0 | 1 | floor layer - sq 94 |
| 237 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 45 |
| 238 | 561 | | Bulk | Floatation | 30 | 3 | floor layer - sq 45 |
| 239 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 36 |
| 240 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 36 |
| 241 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 87 |
| 242 | 561 | | Bulk | Floatation | 20 | 2 | floor layer - sq 87 |
| 243 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 41 |
| 244 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 41 |
| 245 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 74 |
| 246 | 561 | | Bulk | Floatation | 20 | 2 | floor layer - sq 74 |
| 247 | 561 | 901.45 / 342.45 | Block | Micromorph | 0 | 1 | floor layer - sq 87 - 2 blocks |
| 248 | 1058 | | Bulk | Chemical | 0,250 | 1 | |
| 249 | 1058 | | Bulk | Chemical | 0,250 | 1 | |
| 250 | 1058 | | Bulk | Chemical | 0,250 | 1 | |
| 251 | 1058 | | Bulk | Floatation | 10 | 1 | |
| 252 | 1058 | | Bulk | Floatation | 10 | 1 | |
| 253 | 561 | | Bulk | Identification | - | 1 | charred wood (bark) - sq 50 |
| 254 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 91 |
| 255 | 561 | 898.20 / 341.60 | Block | Micromorph | 0 | 1 | floor layer - sq 50. Sample 2/2 grid 897.75/341.53 |
| 256 | 561 | 900.10 / 342.10 | Block | Micromorph | 0 | 1 | floor layer - sq 74 |
| 257 | 1061 | | Bulk | Chemical | 0,250 | 1 | |
| 258 | 1061 | | Bulk | Floatation | 10 | 1 | |
| 259 | 1062 | | Bulk | Floatation | 20 | 2 | floor layer - sq 49 |
| 260 | 1062 | | Bulk | Floatation | 20 | 2 | floor layer - sq 50 |
| 261 | 561 | 898.95 / 341.80 | Block | Micromorph | 0 | 1 | floor layer - sq 55 |
| 262 | 1063 | | Bulk | Chemical | 0,250 | 1 | |
| 263 | 1063 | | Block | Floatation | 10 | 1 | |
| 264 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 46 |
| 265 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 98 |

| Sample No | Context No | Grid | SampleType | ProcessType | Vol_est L | Count | Notes |
|---|---|---|---|---|---|---|---|
| 266 | 561 | | Bulk | Floatation | 10 | 1 | floor layer - sq 98 |
| 267 | 1069 | | Bulk | Floatation | 10 | 1 | fill in hearth |
| 268 | 1062 | | Bulk | Floatation | 10 | 1 | floor layer - sq 46 |
| 269 | 1021 | | Bulk | Chemical | 0,250 | 1 | |
| 270 | 1021 | | Bulk | Floatation | 10 | 1 | |
| 271 | 1074 | | Bulk | Chemical | 0,250 | 1 | |
| 272 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 46 |
| 273 | 561 | 897.38 / 341.76 | Block | Micromorph | 10 | 1 | floor layer - sq 42 |
| 274 | 561 | | Bulk | Chemical | 0,250 | 1 | floor layer - sq 42 |
| 275 | 561 | | Block | Floatation | 10 | 1 | floor layer - sq 42 |
| 276 | 1072 | | Bulk | Chemical | 0,250 | 1 | |
| 277 | 1072 | | Bulk | bulk | 10 | 1 | |
| 278 | 561 | 897.25 / 341.35 | Block | Micromorph | 0 | 1 | floor layer - sq 41 |
| 279 | 1073 | | Bulk | Floatation | 25 | 3 | |
| 280 | 1073 | | Bulk | Chemical | 0,250 | 1 | |
| 281 | 1074 | | Bulk | Floatation | 20 | 1 | from ember pit |
| 282 | 1070 | 887 / 332 | Bulk | Floatation | 10 | 1 | |
| 283 | 561 | 897.90 / 341.05 | Block | Micromorph | 0 | 1 | floor layer - sq 45 |
| 284 | 1079 | | Bulk | Floatation | 10 | 1 | fill in hearth |
| 285 | 1079 | | Bulk | Chemical | 0,250 | 1 | fill in hearth |
| 286 | 1078 | | Bulk | Floatation | 10 | 1 | |
| 287 | 1081 | | Bulk | Chemical | 0,250 | 1 | fill in hearth |
| 288 | 1081 | | Bulk | Floatation | 70 | 7 | fill in hearth |
| 289 | 1078 | | Bulk | Identification | 0,250 | 1 | charcoal |
| 290 | 1087 | | Bulk | Floatation | 2,5 | 1 | fill in W corner of hearth |
| 291 | 1089 | | Bulk | Floatation | 2,5 | 1 | layer of charcoal and ash |
| 292 | 1092 | | Bulk | Floatation | 10 | 1 | |
| 293 | 1095 | 889 / 307 | Bulk | Identification | 0,250 | 1 | ash and charcoal |
| 294 | 1096 | 889 / 307 | Bulk | Identification | 1 | 1 | turf |
| 295 | 1103 | | Bulk | Floatation | 4 | 1 | charcoal and ash |
| 296 | 1105 | | Bulk | Floatation | - | 1 | floor layer - charcoal and ash |
| 297 | 1107 | | Bulk | Floatation | 4 | 1 | fill of post hole |
| 298 | 1108 | | Bulk | Floatation | 10 | 1 | ash layer |
| 299 | 1109 | | Bulk | Floatation | 10 | 1 | |
| 300 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 301 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |

| Sample No | Context No | Grid | SampleType | ProcessType | Vol_est L | Count | Notes |
|---|---|---|---|---|---|---|---|
| 302 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 303 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 304 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 305 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 306 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 307 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 308 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 309 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 310 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 311 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 312 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 313 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 314 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 315 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 316 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 317 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 318 | 1106 | | Bulk | Chemical | 1 | 1 | occupation layer |
| 319 | 1112 | | Bulk | Floatation | 4 | 1 | |
| 320 | 1113 | | Bulk | Floatation | 4 | 1 | fill of posthole |
| 321 | 1116 | | Bulk | Floatation | 1 | 1 | fill of posthole |
| 322 | 1119 | | Bulk | Floatation | 1 | 1 | fill of posthole |
| 323 | 1122 | | Bulk | Floatation | 4 | 1 | fill of pit |
| 324 | 1124 | | Bulk | Floatation | - | 1 | fill of charcoal pit |
| 325 | 1115 | | Bulk | Floatation | 10 | 1 | occupation layer under 561 |
| 326 | 1106 | | Bulk | Floatation | 10 | 1 | occupation layer |
| 327 | 1106 | | Bulk | Floatation | 1 | 1 | occupation layer |
| 328 | 1106 | | Bulk | Floatation | 1 | 1 | occupation layer |
| 329 | 1106 | | Bulk | Floatation | 1 | 1 | occupation layer |
| 330 | 1106 | | Bulk | Floatation | 1 | 1 | occupation layer |
| 331 | 1106 | | Bulk | Floatation | 1 | 1 | occupation layer |
| 332 | 1115 | | Bulk | Chemical | 0,500 | 1 | occupation layer under 561 |
| 333 | 1120 | | Bulk | Floatation | 10 | 1 | |
| 334 | 1015 | | Bulk | Identification | 1 | 1 | wood - bagged in 2002 and left on site |
| 335 | 1129 | | Bulk | Floatation | 1 | 1 | fill of posthole |
| 336 | 1131 | | Bulk | Floatation | 10 | 1 | |
| 337 | 1100 | | Bulk | Floatation | 4 | 1 | |
| 338 | 1101 | | Bulk | Identification | 0,250 | 1 | tephra - V-950? |
| 339 | 1132 | | Bulk | Floatation | 10 | 1 | charcoal dump |

| Sample No | Context No | Grid | SampleType | ProcessType | Vol_est L | Count | Notes |
|---|---|---|---|---|---|---|---|
| 340 | 1134 | | Bulk | Chemical | 1 | 1 | fill of posthole |
| 341 | 1136 | | Bulk | Floatation | 10 | 1 | |
| 342 | 1084 | | Bulk | Floatation | 5 | 1 | |
| 343 | 1137 | | Bulk | Floatation | 20 | 2 | hearth group 1140 |
| 344 | 1137 | | Bulk | Chemical | 0,500 | 1 | hearth group 1140 |
| 345 | 1100 | | Bulk | Floatation | 1 | 1 | |
| 346 | 1147 | | Bulk | Floatation | 4 | 1 | fill of stake hole |
| 347 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of stake hole |
| 348 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of stake hole |
| 349 | 1147 | | Bulk | Floatation | 4 | 1 | fill of stake hole |
| 350 | 1153 | | Bulk | Floatation | 4 | 1 | fill of stake hole |
| 351 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of stake hole |
| 352 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of stake hole |
| 353 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of stake hole |
| 354 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of stake hole |
| 355 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of stake hole |
| 356 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of stake hole |
| 357 | 1149 | | Bulk | Floatation | 4 | 1 | fill of stake hole |
| 358 | 1138 | | Bulk | Floatation | 0,250 | 1 | charcoal |
| 359 | 1151 | | Bulk | | - | 1 | |
| 360 | 1151 | | Bulk | | - | 1 | |
| 361 | 1157 | | Bulk | Floatation | 4 | 1 | fill of posthole |
| 362 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of stakehole |
| 363 | 1159 | | Bulk | Floatation | 4 | 1 | fill of stakehole |
| 364 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of stakehole - wood fragm |
| 365 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of stakehole |
| 366 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of stakehole |
| 367 | 1161 | | Bulk | Floatation | 0,250 | 1 | fill of stakehole |
| 368 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of stakehole |
| 369 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of stakehole |
| 370 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of stakehole |
| 371 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of stakehole |
| 372 | 1166 | | Bulk | Floatation | 1 | 1 | fill of posthole |
| 373 | 1164 | | Bulk | Floatation | 1 | 1 | |
| 374 | 1161 | | Bulk | Floatation | 4 | 1 | fill of stakehole |
| 375 | 1168 | | Bulk | Floatation | 10 | 1 | |
| 376 | 1169 | | Bulk | Floatation | 4 | 1 | fill of posthole |
| 377 | 1173 | | Bulk | Floatation | 4 | 1 | fill of posthole |
| 378 | 1175 | | Bulk | Floatation | 4 | 1 | fill of posthole |

| Sample No | Context No | Grid | SampleType | ProcessType | Vol_est L | Count | Notes |
|---|---|---|---|---|---|---|---|
| 379 | 1179 | | Bulk | Floatation | 4 | 1 | fill of posthole |
| 380 | 1181 | | Bulk | Floatation | 4 | 1 | fill of posthole |
| 381 | 1178 | | Bulk | Floatation | 10 | 1 | |
| 382 | 1183 | | Bulk | Floatation | 4 | 1 | fill of posthole |
| 383 | 1185 | | Bulk | Floatation | 10 | 1 | fill of posthole |
| 384 | 1187 | | Bulk | Floatation | 10 | 1 | |
| 385 | 1189 | | Bulk | Floatation | 10 | 1 | fill of posthole |
| 386 | 1191 | | Bulk | Floatation | 10 | 1 | fill of posthole |
| 387 | 1187 | | Bulk | Floatation | 10 | 1 | |
| 388 | 1187 | | Bulk | Floatation | 10 | 1 | |
| 389 | 1193 | | Bulk | Floatation | 4 | 1 | fill of posthole |
| 390 | 1195 | | Bulk | Floatation | 30 | 3 | fill of hearth |
| 391 | 1198 | | Bulk | Floatation | 4 | 1 | charcoal dump |
| 392 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 393 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 394 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 395 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 396 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 397 | 1202 | | Bulk | Floatation | 4 | 1 | |
| 398 | 1187 | | Bulk | Identification | 4 | 1 | pink organic layer |
| 399 | 1187 | | Bulk | Floatation | 10 | 1 | pink organic layer |
| 400 | 1187 | | Bulk | Floatation | 10 | 1 | pink organic layer |
| 401 | 1187 | | Bulk | Floatation | 10 | 1 | pink organic layer |
| 402 | 1187 | | Bulk | Floatation | 10 | 1 | pink organic layer |
| 403 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 404 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 405 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 406 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 407 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 408 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 409 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 410 | 1203 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 411 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 412 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 413 | 1147 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 414 | 1211 | | Bulk | Floatation | 0,250 | 1 | fill |
| 415 | 1209 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 416 | 1209 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 417 | 1209 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |

| Sample No | Context No | Grid | SampleType | ProcessType | Vol_est L | Count | Notes |
|---|---|---|---|---|---|---|---|
| 418 | 1209 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 419 | 1209 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 420 | 1209 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 421 | 1209 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 422 | 1209 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 423 | 1209 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 424 | 1209 | | Bulk | Floatation | 0,250 | 1 | fill of posthole |
| 425 | 561 | 897.40 / 340.25 | Bulk | Identification | 0,250 | 1 | wood fragm from division? Stake hole |