

ARCHAEOLOGICAL INVESTIGATIONS

HÖFDAGERÐI, NÚPAR 2004:

STRUCTURE 3 - THE SMITHY

Framvinduskýrsla/Interim Report



Oscar Aldred BA MA PhD FSA Scot MCIfA

With Contributions by

Colleen Batey and Guðrún Alda Gísladóttir

Fornleifastofnun Íslands

FS766-02253

Cambridge & Reykjavík 2019



© *Fornleifastofnun Íslands*

Bárugötu 3

101 Reykjavík

Sími: 551 1033

TABLE OF CONTENTS

Table of Contents	ii
List of Figures & Tables	iii
Summary	v
Acknowledgements	vi
1. Introduction	1
Aims and Methods	1
2. Fieldwork Results	4
Excavation	4
Structure 3	6
3. Finds	25
2003	25
2004	26
4. Discussion	29
5. Appendices	35
Excavation unit information	35
Units	35
Fnds	43
Environmental samples	51
6. References	54

LIST OF FIGURES & TABLES

Figure 1. Höfðagerði and its wider context.	3
Figure 2. A field survey of Höfðagerði.	5
Figure 3. Plan of Structure 3.	7
Figure 4. Structure 3, looking northeast, in 2003. Showing in situ collapse deposits. ...	8
Figure 5. The western side turf wall [70].	10
Figure 6. Entrance into structure 3 – looking into the building from the east.	11
Figure 7. Cut into south wall, with postholes either side and inside and outside the building, probably supporting a structure associated, was a feature controlling the flow of air in and out of the building.	12

Figure 8. In situ floor [117].....	14
Figure 9. Structure 3 fully excavated showing the internal arrangement of the postholes and other features.....	15
Figure 10. Post pits [233, 240] related to the placement of a possible stone anvil.....	17
Figure 11. Middens surrounding the structure.....	21
Table 1. Site-wide phase groups, based on observed tephra horizons during excavations in 2002, 2003 and 2004.....	6
Table 2. Finds quantities from excavation of Structure 3 (all years).....	30
Table 3. Distribution of artefacts in context type, divided by use (Phase 1) and post- use (Phases 2-5) contexts.....	31

SUMMARY

The site of Höfðagerði is located on the eastern slope of Ytri-Höfði, which is one of two hills situated on the eastern bank of river Laxá, some 800 m SW of Núpar farm. There are at least 20 features and subrectangular structures that can be detected within the area immediately adjacent to it, as well as 3-4 enclosure boundaries. In addition, there is a small rise some 75 m N of the Laxá riverbank.

Following assessment in 2002, and comprehensive assessment and excavation in 2003, the focus in 2004 was on excavating the remaining parts of structure 3. The results of the excavations suggested that the structure acted as a localised store and metal working structure (smithy), and contained with several construction features. Analysis on the spatial distribution of objects and material from the occupation deposits supported this interpretation. Furthermore, this was an activity that took place shortly after 871 AD, but it was then abandoned sometime before 1104 AD.

Farm name: Höfðagerði, Núpar

Address: 641 Húsavík

Sveit: Húsavík

Sýsla: Suður Þingeyjarsýsla

Land owners: Sigurður Karl Björnsson and Sigurður Karlsson

Location of site:

ISN93 (Eastings, Northings, meters) 570889 / 604598

WGS84 (Longitude, Latitude, decimal degrees) –17.441812 / 65.928508

ACKNOWLEDGEMENTS

Thanks go primarily to all students who participated on the excavations and post-excavation connected with Höfðagerði in 2004. Very special thanks to the land owners and relatives who allowed us to excavate a hereafter abandoned for many centuries archaeological site.

One of the challenges for any piece of archaeological work is presenting an appropriately true representation of the fieldwork, and ‘imbibing’ into it the buzz of the interpretative potential that comes from fieldwork, especially excavation. Edifying this into the text is hard. And with any kind of temporal distance from the fieldwork, the harder this becomes. A series of unfortunate personal events led to the delay in writing this report. However, after 15 years, there is still much clarity in what occurred during the short 4 weeks of excavation at Höfðagerði, and what I am writing here reflects the endeavour of that duration and those that worked on the project. It only remains for me to apologise unreservedly for the long delay in publishing the report of the fieldwork in 2004, and drawing some initial conclusions. Fortunately, the site was recorded well – thanks to those that worked on the site - and the subsequent analysis has resulted in a report that is as true to the spirit of the fieldwork as was ever the case.

Oscar Aldred, Cambridge October, 2019.

1. INTRODUCTION

The archaeological investigations at Höfðagerði, in the vicinity of Núpar farm, and east and south of the lower Laxá river in the Mývatn environs, took place across 4 weeks between July and August, 2004. The 2004 excavations followed on from excavations that occurred on the same site and structure (3) in 2003. The excavation was one of the research projects associated with the *Landscape of Settlements* (LML) project.

The archaeological investigations formed a part of an integrated study of the archaeological remains. This entailed a number of archaeologists and specialists within the fields of archaeology, geography and environmental science from Fornleifastofnun Íslands, CUNY Northern Science & Education Center, North Atlantic Biocultural Organization, School of Geo Sciences, University of Edinburgh, and University of Stirling. The archaeological investigations were also part of Fornleifastofnun Íslands's field school, and involved an international team of students from Germany, USA and Iceland.

The results of the investigations were to be used in comparison with other sites undergoing archaeological investigations within the Landscape of Settlements (LML) project. In particular, within the remit of the LML project, at Höfðagerði the study was associated with the abandonment of medieval farms, with a detailed study of one farm within a specific chronological window, from the Viking to the late medieval periods, with good buried and visible surface preservation. A number of buildings were evaluated for their archaeological potential – both in terms of preservation and good dating evidence. As a result structure 3 was chosen for excavation.

AIMS AND METHODS

The broad aims of the archaeological investigations were to further understand the archaeological remains through intrusive and non-intrusive methods.

Following on from 2003, in which the main aims were to assess the age, the character and the nature of the archaeological remains at Höfðagerði, the 2004 season focused

on continuing to the excavation of a single structure at Höfðagerði (structure 3). Much of the previous years' work was focused on assessing the wider context of the archaeological remains, but in 2004 the single focus was on excavating the remaining archaeological deposits associated with structure 3, in order to fully understand its sequence and history in relation to the wider picture attained in 2003. Therefore focus for 2004 entailed:

1. Continued excavation of structure 3. This included the excavation of the internal space as well as the areas outside the structure that displayed evidence of anthropogenic activity (e.g. sheet midden deposits and other features and deposits).
2. The total area under excavation was a 15m by 15m excavation area, totalling 225 sq m. Excavation and removal of deposits was by hand, stratigraphically and in sequence using an adapted single context planning and recording system. A large part of the site – the internal floors and external middens were excavated on a 1m grid for spatial control over artefacts and environmental samples (for detail see below).
3. And finally, the re-constitution of the site, both the soil taken from the excavation and the turf cut during excavation in the sites' transformation back to nature.

The excavation was carried out using the single context planning and recording system primarily used by MOLA and in England, but adapted for Icelandic archaeology (Spencer 1994; Lucas 2003; <http://www.instarch.is/utgafa>).

Contexts formed the main unit of recording and were excavated stratigraphically (by single context), in sequence, within the excavation areas. Each find, environmental sample and record was related to the unit that it was found within/taken from/being described. The information from the archaeological investigations such as the physical and digital archives reside, at present, at Fornleifastofnun Íslands.

Tephra analysis was carried out by Magnús Á. Sigurgeirsson, who investigated each area at Höfðagerði during the excavation. The environmental and tephra assessment

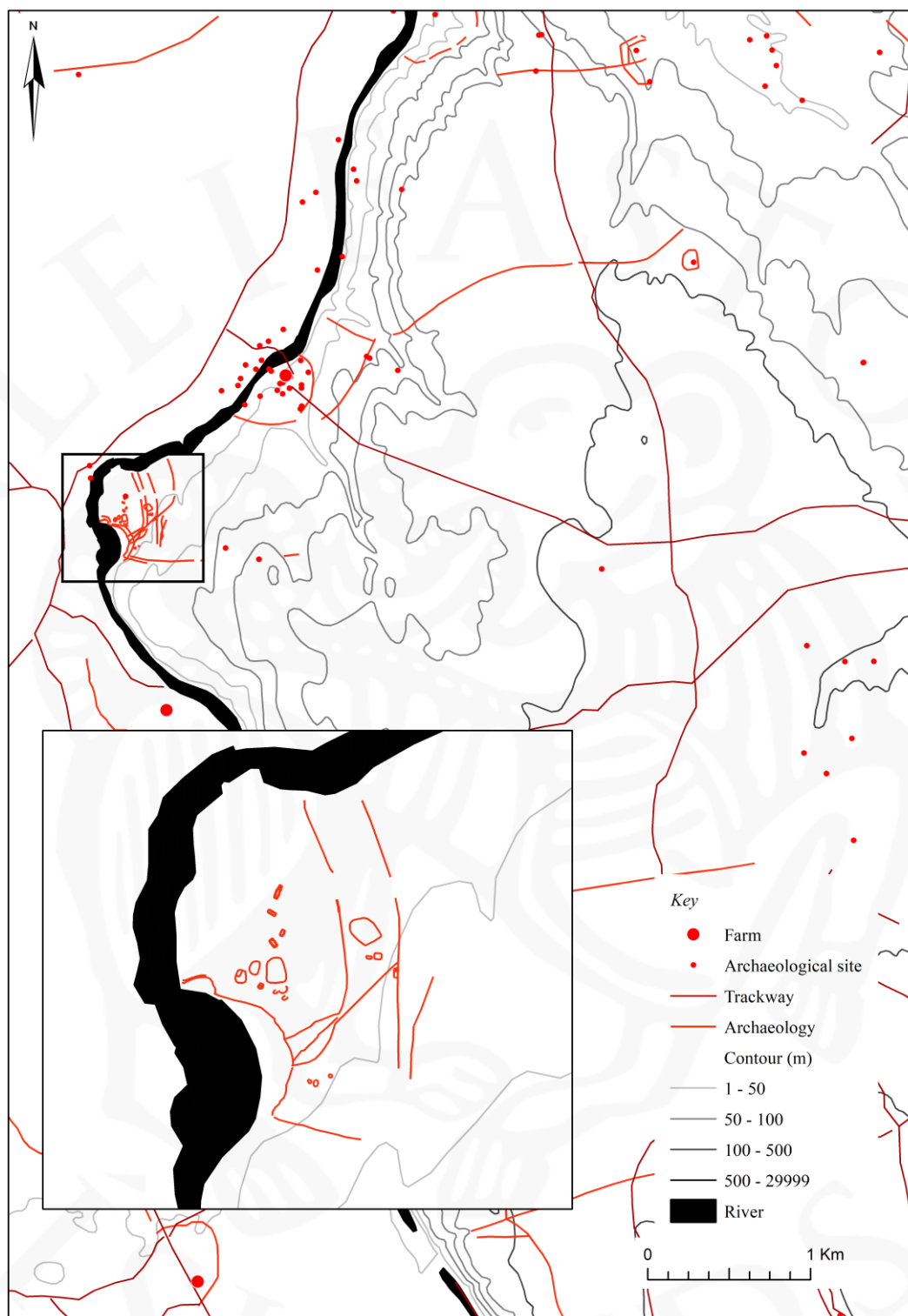


Figure 1. Höfðagerði (inset box) and its wider context, based on airborne mapping and dgps survey (by Garðar Guðmundsson).

of the wider landscape environs of Höfðagerði were investigated by Professor Michael Church, who was at that time a Leverhulme Research Fellow, based at the University of Edinburgh.

The excavation and sampling strategies took place specifically for the deposits connected to the use of the structure. This included excavation using a 1m grid of internal occupation deposits [117, 153, 158, 159] and external sheet midden deposits [68, 71] for the spatial arrangement analyses based on environmental evidence and material culture. Furthermore, all occupation deposits and postholes were sampled for the potential macro and chemical analyses. The occupation deposits [117 & 153], in particular, were sampled on a 1m grid for spatial control for all finds and metal working residues, such as slag and hammer-scale, which was sometimes visible by eye; the spatial distribution of these metal working residues helped to identify metal working areas within the structure based on positive and negative distributions. The scope and range of the metal assemblage, in particular, from both the 2003 and 2004 excavations, suggest a careful curation of metal objects, as well as metal objects associated with the removal of timbers from the building, and – as was described in the 2003 excavation report, the assemblage seemed to fit a metal working assemblage.

2. FIELDWORK RESULTS

EXCAVATION

Oscar Aldred

The 2002 and 2003 excavations revealed a stratified sequence of deposits that relate to the observed tephra deposits seen across the site. As a direct result of this, a preliminary phasing was made. At present, there seems no reason not to continue with this phasing, on which the results from 2004 were built on (Aldred & Friðriksson 2003: 13; Aldred 2004: 10).

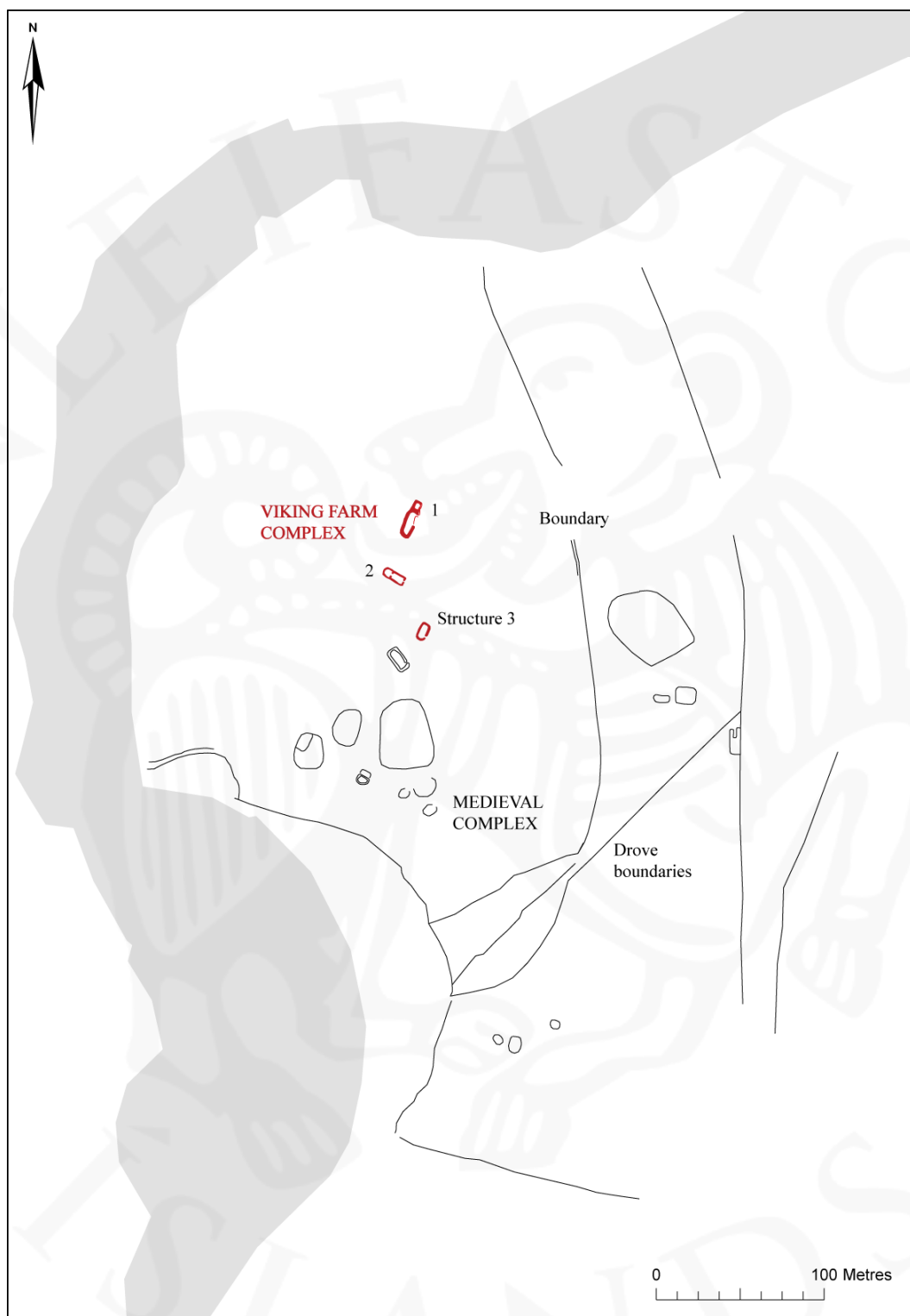


Figure 2. A field survey of Höfðagerði, derived from airborne mapping and dgps survey (by Garðar Guðmundsson).

<i>Phase name</i>	<i>Date range</i>
Phase 1	871-1104 AD
Phase 2	1104-1300 AD
Phase 3	1300-1477 AD
Phase 4	1477-1717 AD
Phase 5	Post 1717 AD

Table 1. Site-wide phase groups, based on observed tephra horizons during excavations in 2002, 2003 and 2004.

Structure 3

As in previous years, the excavation of structure 3 formed the focus for the 2004 season. In 2002 the structure was surveyed using DGPS, both as an outline of the visible remains, but also in constructing a continuous height survey. A small sondage, measuring 2.4m by 0.6m, was excavated through the structure in order to determine the character and nature of the archaeological remains. The visible earthwork suggested a structure c. 12m by 7m, and standing as a visible earthwork c. 0.2m above the surrounding ground surface. The earthwork suggested a possible entrance on the eastern side at the southern end, and the building orientated broadly northeast to southwest. An area of 15m by 10m was opened around the structure in 2003; this took in both the structure and an area immediate around it.

In 2003 the site deposits and features from phases 2 through to 5 were excavated. And while there is some revisiting of these in this report, the description and interpretation of these deposits and features is largely the same as it was written for 2003 report. Whereas the 2003 season focused on the excavation of the ruination, abandonment and immediate post-occupation deposits and surfaces (i.e. collapse), the 2004 season principally focused on the removal of the *in situ* occupation deposits and related to the construction and occupation of the building; hence, the structural features such as postholes, and features associated with the use of the building both inside the building as well as around it within the excavation area.

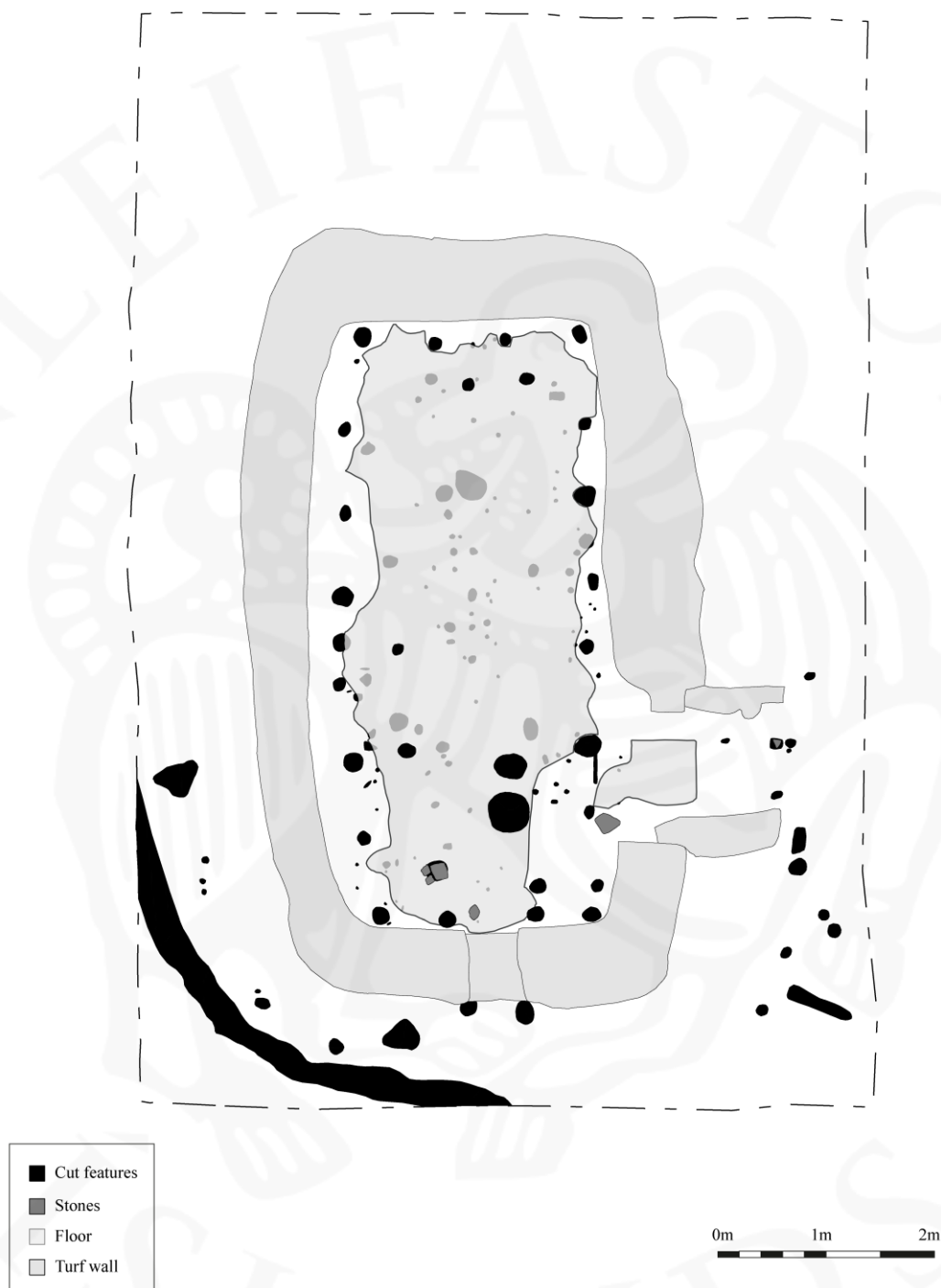


Figure 3. Plan of Structure 3. Structural features only, and main floor [117].



Figure 4. Structure 3, looking northeast, in 2003. Showing in situ collapse deposits.

The subsequent discussion comprises the sequence of events will be from the construction (Phase 1a), to occupation (Phase 1b), through to the immediate post-occupation deposits (Phase 1c). After which, there is a summary discussion on the other phases relating to the possible dis-use and re-use (Phase 2) and its eventual abandonment (Phases 3 & 4).

Phase 1a – Construction (late 9th to early 10th century AD)

Although the excavation in 2003 did not excavate the construction and occupation of the structure, many of the main construction and structural features were hinted at, and therefore appropriate research strategies were development. The main construction and structural features such as postholes and walls, and also deposits such as construction debris and upcast [77] (part of group [85]), as well the large undisturbed surface of *in situ landnám* tephra [246], located mainly on the north, west and south sides. Furthermore, the west side of the structure was cut into the slope that ran from west to east, which helped to protect the tephra from erosion and therefore

preserved some of the tephra. On the east side – lower down the slope – the tephra had not survived because of erosion of the surface and the subsequent removal of the upper parts of the ground surface. The major construction features, which were all part of group [85], were seen in 2003, but only fully recorded and excavated in 2004. They were the turf walls [70]; the entrance and porch turf walls [72]; several posthole groups relating to different phases of structure 3's use; as well as an external gully [50] and an arrangement of small cut features in the south-eastern corner of the excavation area that may have been a covered, external smithy area.

What the excavation in 2004 revealed was principally associated with the internal area of structure 3: the support structure ascertained from evidence such as postholes and beam slots that would have held up the walls and roof; and features associated with the area around the structure that were probably associated with the occupancy. From observations in 2003, the internal space appeared to be slightly sunken on the western side of the structure. This was because the slope direction was downwards from west to east causing a structural tilt on its western side that was seen in the abandonment and collapse deposits excavated in 2003. What was also observed was a relatively well preserved turf walls on the west side, with a possible build-up of aeolian deposits against it, and the poorer preservation on the eastern side due to erosion and soil movement downslope.

Structure 3 was cut [245] into the western slope of the natural incline, and was probably intended to 'level' the surface of the structure upon which the turf walls, entrance and roof supporting postholes were constructed. The turf walls [70] were between c. 0.8m to 1.2m wide, and survived to a height of approximately 0.5m. The layers within the *strengur* turf contained *landnám* tephra, as well as a windblown deposit and a thin cultural deposit; suggesting activity before the turf was cut. In some points along the entirety of the outside face of the turf walls, it was possible to see the construction method of the walls which was stacked turf, with the outside edge tapering inwards. In 2003 there appeared to be a slight overhang on the western end, along the inside edge of the wall. And this was confirmed during excavations in 2004, and, in which, the walls were also slightly bowed, with sub-rectangular and rounded ends. The turf walls suggested from their external faces to be composed of between 3-4 successive bands of *strengur* turf. To check this, an interior wall profile was

recorded on the western wall showing the H3 tephra matrix in the turf wall's turf, along with preserved *landnám* tephra at the base, underneath the wall. This confirmed a section excavated through the structure in 2002 (Aldred & Friðriksson 2003). Including the turf walls, the structure measured 11m by 7m, and without an internal space of 9m by 4.5m.



Figure 5. The western side turf wall [70].

Although largely unexcavated in 2003, in 2004 the entrance on the eastern side of the structure measuring 1.65m, with two turf walls [72], c. 1.3m by 0.4m, extending out perpendicular to the main body of the structure. The space provided by the entrance into the structure was extended by the turf walls that formed a porch and recess 2m deep. There appeared to be some cutting into the turf wall [70] to accommodate the fitting of the porch walls [72], in particular for the northern wall, suggesting that the entrance porch was a secondary feature, or to have been contemporary with the construction of the walls. Like [70], the composition of the porch walls appeared to contain *landnám*. However, the porch walls used different turf compared with [70], and which contained much more meadow-derived bog turf material. This difference

was also seen in the blocking at the south end of structure [78] when compared with the turf in the structure's walls [70]. So it is likely that rather than being contemporary to the construction of structure, the porch – and the blocking – were both secondary events.



Figure 6. Entrance into structure 3 – looking into the building from the east.

In close association with the entrance and porch were several postholes [group 123] that would have supported wooden posts with a simple door. There had been some repair associated with the entrance postholes as one of the internal postholes [140] was overlain by a post-pad [131].



Figure 7. Cut into south wall, with postholes either side and inside and outside the building, probably supporting a structure associated, was a feature controlling the flow of air in and out of the building.

In the south wall of the structure, approximately in the middle, the wall appeared to have been cut into [78]. Either side of this feature in the south wall, on both the inside and outside sides of the wall, there were postholes [group 147 and 149]. During the 2003 excavation, it was thought that this was associated with a blocked entrance; turf collapse filled the gap that was created. However, given the wider context of other features, and the turf used, it is more likely – given the initial assessment of the features and artefacts found during the excavation – that the gap in the wall was associated with the smithying function of the building, and that this was then subsequently blocked when the entrance was made. However, the internal postholes were probably related to holding the roof up, as well as supporting a structure associated with this feature. The external postholes were cut at the level of the ground surface to a depth of c. 0.25m.

The gap in the south wall may have acted as a kind of opening or vent for the smithying that was going on inside the building, and linked with the entrance in the east wall to control the flow of air coming in and out of the building. The feature in the south wall was c. 0.7m wide. The question of why it was blocked remains though. And this may have been due to a change in the arrangement of the internal features – say a change in the location of the smithying activity from the north end to the south end possibly - which resulted in the blocking of the ‘gap’ and the construction of the porch. It is feasible that the ‘gap’ was an earlier entrance that was then blocked when the porch or entrance on the eastern side was constructed, but it more likely, given the function of the building, that the gap provided a ventilation point that could perhaps be opened and closed – according to the posthole arrangements; and the correspondence in turf type – between the blocking in the gap and the porch walls – were similar because they were on the one hand used for blocking the ventilation feature, and on the other creating a sheltered access for the entrance on the east side.

Inside the building there were 141 postholes and stakeholes [group 149]. These were arranged into several groups: (*group 1* - contained 100) postholes and stakeholes underneath the earliest floor [117]; and those postholes cutting floor [117] (*group 2* - 24); and those with no direct physical relationship with floor [117] (*group 3* - 17); [149 – the former 149b and the latter two groups 149a]. What these arrangements suggest, at a minimum, is that the space inside the building was restructured at least once. While the majority of outer postholes – close to edges of the turf wall – were probably permanent and continued to be used through the build-up of successive floors [153, 158, 159], there are a few postholes that lay under floor [117]. However, during excavation the precise relationship between these groups of postholes [149a and 149b] and the floor [153], which was probably a mix of the last working floor before demolition, was hard to note. As will be discussed below within the *Phase 1b – Occupation and use* section, floor [153] was relatively localised to the south end of the building. It is likely, therefore, that the *group 2* postholes identified as cutting or contemporary with floor [117] were also contemporary with floors [153, 158 and 159].



Figure 8. In situ floor [117].

Besides the relationship of the postholes [149] to the floors, another facet was their relationship to the turf walls. The alignment of postholes along the western side of structure 3 were slightly curved – bowed – like the turf wall, while the eastern side was straight. Additionally, all the deepest postholes – with the exception of one posthole on the western side – lay along the eastern side (below 23m OD). What this suggests, architecturally speaking, was that the roof to the building may have been constructed as a lean-to i.e. with the highest side lying on the east side, leaning onto the bowed wall and bowed alignment of the postholes on the western side. It may have been slightly more complex, however. Quite how the deeper posthole on the western side relates to this arrangement can only be speculated about, but it may have been to help slope the roof towards the gully feature [50] towards the south, that may have acted as a channel to remove water from the roof and repurpose it for the smithying work (see below). There are not any parallels for this kind of construction, however, and while its feasibility can be questioned, the added arrangement of postholes and smaller postholes/stakeholes [147], including the two postholes associated with the gap in the south wall of the structure, suggest that they would have

added additionally support for such a roof arrangement. This is a holistic interpretation, as opposed to one which focuses on individual components.



Figure 9. Structure 3 fully excavated showing the internal arrangement of the postholes and other features.

The internal arrangement of the postholes suggests that there were some further spatial divisions inside structure 3. Lines can be drawn along which a demarcation of space inside the structure can be suggested. For example, the southern half of the building, more or less within the confines of floor [153], there was a line of postholes that divided the southern third of the building from the northern two thirds. Basically, this section of the building lay within the space connected with the east side entrance and porch. Within the *group 1* postholes there was a line of postholes that mirrored *groups 2 and 3*, slightly inset from them, but which were confined to just the northern half. These may have been part of a bench construction, or something that was built into the fabric of the building for storage that would have been dismantled. Other postholes and stakeholes under floor [117] related to furniture or fittings associated with the first use of the building; possibly related to the ‘gap’ in the south wall.

Furthermore, the division is supported by the distribution of artefacts in floor [117]. For instance, while slag coming from floor [117] was largely confined to the south extremity of the building – the southern being the area probably associated with smithying work – the non-slag material is fairly exclusively located in the north area, beyond the spatial division discussed above. The supportive nature of the posthole arrangements, as well as the artefact distributions, make this interpretation fairly plausible.

In the south part of the building, which was defined by the linear posthole arrangements, the concentration and distribution of slag/non-slag artefacts, as well as by floor [153], there were two postholes (a part of the *group 2* postholes) [233, 240] that may have been the remains of an *in situ* setting, such as an anvil. The two postholes were side-by-side, orientated north to south, with one slightly smaller than the other, but both as more or less as deep (the larger of the two was slightly deeper). The post pits were probably used to hold fast two large posts that were sawn short, on which was placed a large stone that acted as an anvil (cf. Gunnar Magnús 1954: 30-32). Indeed, the spatial distribution of hammer-scale that was sampled on a 1m grid, sieved and then weighed from floor [153], demonstrated that the greatest concentration came from around these two postholes or post pits (e.g. 10g > from a 250ml subsample of an 80% soil sample). There are few examples of this type of smithy arrangement; for the building type Auðnugil shows some comparable features such as the ‘gap’ in the wall (Þór Magnússon 1984). While the smithy at Stöng is more or less contemporary with this structure, there were some differences, especially the presence of a hearth which appeared to be suspended in structure 3 - though the preservation of the features inside the building at Stöng was not as good (Stenberger 1943).



Figure 10. Post pits [233, 240] related to the placement of a possible stone anvil.

On the outside space of structure 3, the gully [group 50; 114 & 116] mirrored the outer edge of the turf wall [70] running into the limit of excavation baulk on its southern and western side. The gully cut [114 & 116] was c. 6m in length, c. 0.5m wide and c. 0.2m deep (to current excavation limits). It was filled principally by sheet midden material [71] (see below), as well as charcoal rich deposits [121, 122].

There are just a few excavated examples in Iceland with features like gully [50] (e.g. Hofstaðir on the east side of the long house), however, the author does not know of any others that mirror the wall in this way. Located outside of the structure, in the south-western corner of the excavation area, it curved around the south-western corner of structure 3, and was associated with postholes on its inside edge [group 147]. It is suggested above that the gully acted as an elaborate eaves gully, a ditch that took water coming from the roof away from the building. The additional postholes support the notion that there was a structure relating to the roof that was supported by posts which formed part of a water management system for the industrial activity going on in the building. However, if this was not the function, then it may still have

been used to transport water away from the building, perhaps water running down slope. As the building was cut into the slope on its western side, it would have been susceptible to water seepage, and ensuring that this did not happen would have meant that the foundations and walls of the building would not be destabilized by the removal of water coming off the roof and running downslope.

There were a number of other external features. In the south-eastern corner of the excavation area there were four postholes and a small linear feature [group 111], clustered together. It was likely that these were part of a small structure related to the smithying process, perhaps a small metal working area outside of the building that was covered. It is also possible that the gully [50] while removing water coming off the roof, may have been directed into a feature just beyond the excavation limit. However, an extension to the excavation area may have resolved this, but this did not happen.

Phase 1b – Occupation and use

Several occupation deposits were recorded in 2003. For example, after the removal of the internal primary collapse deposit [73 & 144] several occupation deposits were revealed, and these were excavated in 2004. This matched the results from the sondage [2] that was excavated through the structure in 2002, which indicated a slightly compacted surface with peat ash and possible upcast (Aldred & Friðriksson 2003: 17). Internal deposits [group 84], which were recorded in 2003 included the entrance surface [75], and the ‘blocking’ deposit [78] in the south wall [70]. These were fully excavated in 2004. In fact, the only object coming from context [75], was a 10p coin <04-63> left by one of the excavators in 2003 as a future memento.

The main work in 2004 was the excavation of a series of floors inside the structure that related to the last couples of periods of occupation within the structure. There was not much between the floors and occupation surfaces, nor between the cut features that were revealed underneath the final and most extensive floor, as the interfaces between the floors themselves were fairly diffuse and arguably excavated in an arbitrary manner. What separated them were subtle differences in their charcoal content, as well as slight shifts in colour and hue. However, that said, it was possible

to differentiate a stratigraphic sequence representing a sense of the earliest survived floors.

Under the main floor [117] (see below), the group of postholes [149b] were probably to do with the use of the building, perhaps for fixed benches and furniture. There were some larger structural elements sealed by [117], which suggests that other, earlier floors had not survived because they were removed, and that the structure had, at least on one occasion (if not more), been subject to fairly significant repair or modification. The removed floors were probably part of the material being redeposited outside of the building in the sheet middens [group 83], comprised of 2-3 sheet middens, [53], [64] and [71], where [53] and [64] are probably the same deposit. (see discussion below).

The preserved floor that was largely intact and well preserved was [117], measured c. 8.5m by 3.5m, and respected up to 41 postholes (*groups* 2 and 3), of which 20 were the main structural posts [149a]. In addition to these 20 structural postholes, there were 5 postholes that either truncated the floor, or less likely, when the floor was formed, were already a part of fittings that were *in situ*. This grouping of 5 postholes included the 2 smithying post pits [233, 240], as well as the 2 postholes [171, 172] that formed a feature that was probably a fixed furniture fitting in the far north of the building. The two smithying post pits were probably replacement posts for two other post pits [179, 181] that were located underneath floor [117] in the norther half of the structure. Around these posts in [117] there was slight evidence for hammerscale that was probably a disturbed remnant of working in this part of the structure before floor [117] formed; mainly because the amount of hammerscale was very small and only localised to one sample square, it was probably residual rather than part of an *in situ* working event. Around the two post pits [233, 240] that truncated floor [117], there was no hammerscale; as discussed later; this was specific to floor [153] (see below).

Similar to floor [117] was a localised surface [159], slight in its extent, and was close to the entrance (figure 3). However, there was a slight difference in its colour – darker, evidence of burning – which was probably a pre-cursor to the activity occurring on floor/surface [153] that sat above which contained elements such as charcoal from the smithying work. For all extents and purposes [159] was the same as

[117]. In a similar way, [158] sat in-between [159] and [153], and like [159] was fairly similar to [117], but had residual elements from [158] contained in it. It is likely that these two surfaces [159, 158] represent a build-up of material around the smithy location that may have been cleaned out, with these elements just surviving. Alternatively, while [159] was probably the same as [117], [158] may have related to the entrance, which lay just 1m to the east. However, the finds coming from [158] are suggestive of a metal working environment, with items such as metal fragments from a curved plate, broken fittings and a lozenge shaped object <04-150>. The finds assemblage from [159] was more in keeping with that coming from [117], with few fragments or broken objects, and more roves, nails and other fitting objects, either for curation or related to the repair of the building.

The surface [153] was another discrete deposit, located in the southern end of the structure. It was later than [117] but possibly, like [159], closely related. It comprised a mixed dark greyish brown silt that was charcoal rich. The floor was sampled for hammerscale on a 1m grid as there was visible evidence on the surface. From the floor [153], a sample ranging between 1 to 10 litre was taken from each excavated square. A smaller sub-sample, approximately 0.25 litres was taken from which to measure the hammerscale quantity from each sample after it was dried sieved (see above). This gave a relative measurement and distribution across the floor with which to identify distinct concentrations that were used to reconstruct the location of the main smithy working area. The analysis of the distribution of hammerscale suggested that the greatest concentration was broadly in the centre of the deposit, showing a clear spatial distribution (figure 3).

As suggested above, the main smithy working area location was around the two post pits [233, 240], with little indication of a spread of this activity to the north or west. However, some of the hammerscale during the working of metal was found in the east and south of these two post pits. This suggests that working occurred probably facing south and slightly east facing, or that there was additional activity occurring that involved the transmission of the smithy material in those directions e.g. the moving of worked metal into a cold water receptacle.

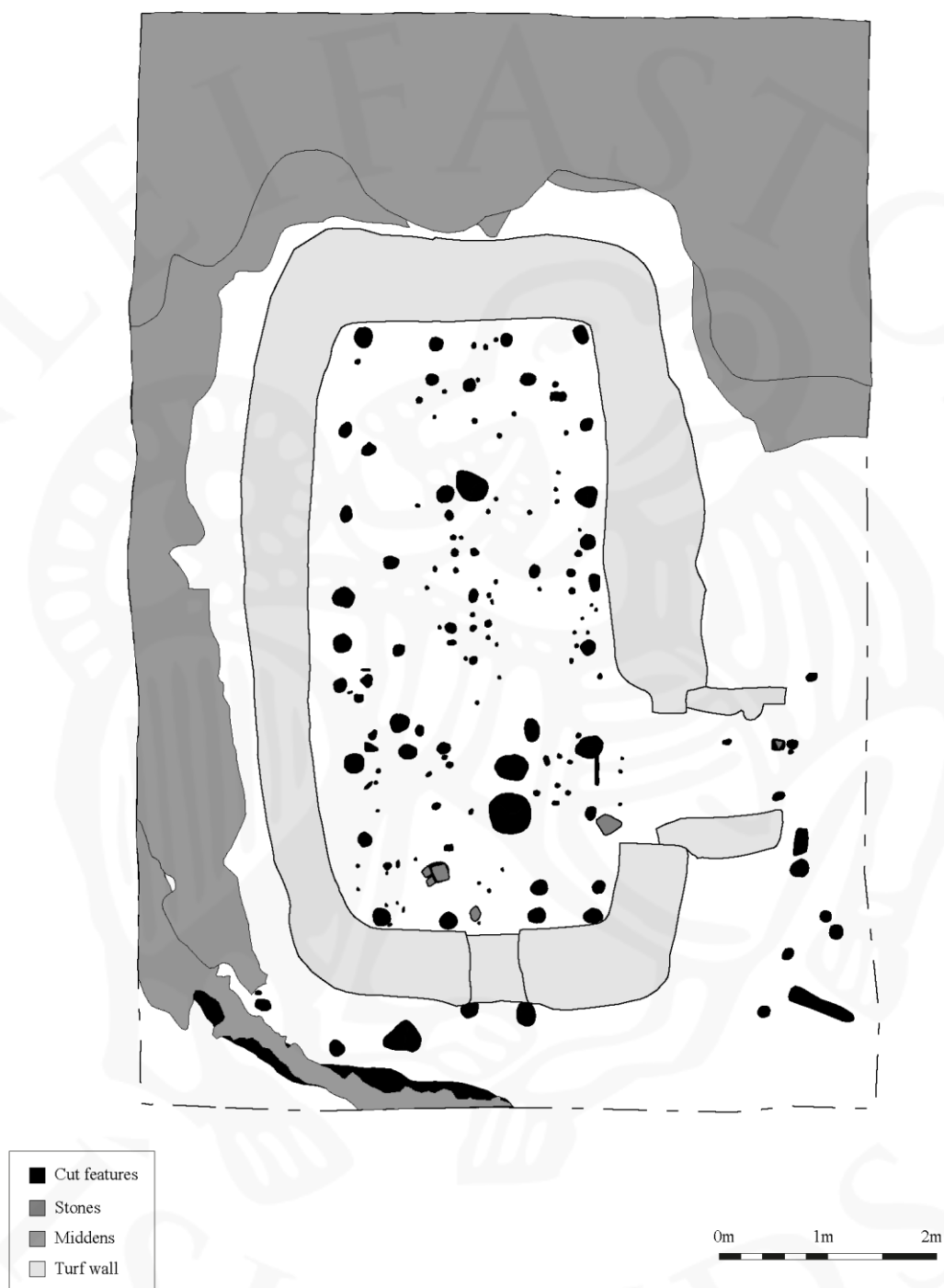


Figure 11. Middens surrounding the structure.

The artefacts coming from floor [153] were widely dispersed across the whole deposit, and were a mixture of iron objects, nails and roves, as well as slag. In fact, slag was probably the most abundant artefact type in the assemblage from floor [153]. This was perhaps more likely to have been caught up with the smithying process, and the result of waste material during heating of the metal for smithying work, rather than the deliberate smelting of metal ore.

Outside of structure 3 there were a number of features and surfaces that merit some discussion: sheet middens [53], [64] and [71], [53] and [64], gully [50] (see above), and a hint of an external structure [group 111] (see above). Probably the most significant of these were the sheet middens [group 83], that comprised of 2-3 different contexts: [53], [64] and [71], where [53] and [64] are probably the same deposit. All three were charcoal rich, though [71] was darker and less contaminated from the interleaving of the underlying natural and was stratigraphically above [53] and [64]. Some finds came from the surface of these contexts: [64] <03-58>, [53] <03-68>, iron objects and bone respectively

The sheet midden [71] was fully excavated, using alternate 1m squares – creating a chequered board pattern (see figure 11). Finds coming from each square were recovered and spatially located to each 1m square. The location of the midden north of the building and away from the entrance way suggests a careful regime of waste disposal. As discussed in the report on the 2003 excavations, the gully [50] appeared to contain a series of midden deposits connected with the external activities on the site [53], [64]. The feature was located in the southwestern part of the site, on the southern extent of the structure. The midden material was simply infilling the feature and was a continuation of the middens further to the north.

Phase 1c – Dis-use and abandonment

Structure 3 had gone out of use by the time the tephra from Hekla in 1104 had fallen. We know this because it was mixed in the turf collapse deposits that covered the structure; as discussed in 2003 and re-reported in this report. Other deposits, such as the greyish white brown deposit [144] probably contained the 1104 tephra as well, though slight in its indications, amongst turf collapse. While [144] was excavated in

2004, the rest of the sequence, from the dis-use and abandonment, evidenced mainly by turf collapse to the re-use, was reported on in the 2003 report. It is, however, reiterated here again. The deposits that formed [group 82] represented a series of windblown, turf debris and collapses, and comprised a large majority of the deposits associated with the dis-use phase of the structure. These deposits included windblown material and turf debris mix [49, 52, 54, 55, 57, 65, 67], and turf collapse and debris [46, 56, 68, 73, 74, 76]. The windblown material was spread across the entire site, though it was notable that this was considerably more extensive on the outside of the structure at the north and south ends, as well on the eastern side and within the gully [49, 52]. Deposit [49] was sampled for possible macro remains <sample 2-2003>. Inside the structure the windblown material [54] survived in the hollows within the turf collapse [73].

The turf collapse from the walls and roof was mostly located within the structure [56, 73], though turf debris [68, 76] also existed in a dispersed form on the outside and within the gully [50], as well intermixed with some of the windblown deposits eg [57]. [46] was extensive and covered the whole of the site, and contained within it 1104 tephra (or H-1104). The H-1104 was very discrete and patchy but was observed consistently throughout the excavation of [46]; it survived best on the northern and southern ends of the structure, where substantial windblown deposits survived.

There was a large assemblage of finds found from structure 3, many of them came from these dis-use deposits. Notably they included a steatite vessel fragment [49] <03-40> and a number of iron objects including a pin [46] <03-55>, a knife [46] <03-49> and nails [46] <03-47, 48, 50, 52, 53>, [49] <03-43, 44, 45>, [57] <03-60, 61, 63>.

Phase 2 – Re-use

After the abandonment of the structure, there appears to have been a period of re-use, not in occupation or in repair and full re-use of the structure, but activity relating to dumping and small localised midden formation [81]. This occurred within the structure, at the interface between the turf collapses [36] and [46], a small isolated dump of peat ash [47] in the southwest corner. There was also a small localised sheet

midden which was placed outside the structure in the southwest corner of the excavation [48]. It is probable that the dumping of material inside and outside the structure were related. The V-1300 tephra was not seen in structure 3, but comparative analysis with the activities at other locations around the site, in test pit 7 [12] and the homefield [69, 99] suggested that the dumping [81] occurred sometime after 1300; between 1300 and 1477 activity has been observed in the area south of the farm mound, as well as re-building or repair of the homfield boundary.

Phases 3 & 4 – Final abandonment

Structure 3, after a brief re-use activity [81], continued to fall into disrepair [80]. The deposit formation during these phases were connected with the accumulation of turf debris from the continued dis-repair of the structure, with the intermixing of windblown material [26, 35, 36]. In particular turf collapse deposits formed discretely at the north end of the structure [35] and across the southern end [36]. Turf debris [26] was spread across the entirety of the site and sealed by V-1477 [5]. The V-1477 [5] was continuous across the whole site, though it was partly removed during de-turfing. A thin spread of windblown material lay over V-1477 [4]. The topsoil and turf mat contained the V-1717.

Phase 5 – Post-1717

The structural evidence, at least what we know from archaeology, is rather limited related to this phase. However, there is suggested evidence that the use of the space in which Structure 3 was situated continued to be used as a ‘home field’ for either the farm that probably resided at the farm mound, or, alternatively, in relation to the farm to the north, either Kölur or Nupar. This is suggested by the continued use and maintenance of the boundaries surrounding the ‘home field’ and the build up of structures in varying parts of the field.

3. FINDS

Colleen Batey, University of Glasgow & Guðrún Alda Gísladóttir, FSI

The finds analysis was carried out shortly after the excavations in 2003, and then subsequently in 2004. The text is reproduced here.

2003

There were 25 finds recorded from this excavation, with 13 from a single context, [46]. The items from [46] include 3 pieces of stone, one probably not artefactual (<03-39>) and the other fire-cracked (<03-42>) from its use in water-heating, <03-46> is classed as a manuport of unknown origin at this stage. Iron pieces, including 5 nails or fragments of nails, include a possible iron pin shank, now in 2 conjoining pieces (<03-55>) and an iron knife blade (<03-49>). The knife blade is complete with an almost square tang and a flat back. The blade, of triangular section, is damaged and rather small, possibly suggestion long-usage. The type is very similar to one illustrated by Ottaway from Coppergate (1992, 573, fig 235 no. 2960) assigned to the period 9th-11th century at that site. From [46] there are also three finds units of industrial debris, <03-51, 54, 57> including some 5 individual pieces in all, and probably related to activity spread through [48] (<03-66>) and [56] (<03-62>) the latter of which is suggested as a bloomery base piece. Localised iron working would therefore seem to be indicated here.

Deposit [49] produced four nails from three finds units [43, 44, 45], but of greater significance is a diagnostic find in the form of a steatite vessel sherd <03-40>. The thin vessel wall sherd is smoothed on both faces and from a hemispherical bowl. In origin it would have come from Scandinavia and the type is commonly recovered on sites of Viking date in Iceland (Eldjarn 1951). In its broken state this piece has clearly been discarded and it is noteworthy that it has apparently not been reworked. In addition, [57] included 3 iron finds, a bent rove and nail shank (<03-60>) and 2 nails (<03-61, 63>) of ubiquitous forms.

In conclusion, this small assemblage is dominated by iron fragments, many of which are roves and nails. This could suggest careful curation of resources for reworking, possibly after removal from wood for building purposes and which itself would have been at a premium. The industrial debris suggests localised smelting on site. Of the chronological or culturally diagnostic items, the lignite whorl fragment, steatite vessel sherd and possibly the knife blade could all suggest an origin in the Viking period, although scattered as they are in these contexts it is possible that they are residual. Further work would enable confirmation of the nature of these contexts and whether a Viking age date can be sustained.

2004

In the region of 164 finds units were recovered from the excavations in 2004. Of these, 46 finds units are of metalworking debris, scattered through thirteen different contexts, but with notable grouping within sheet midden [71] (20 finds units), [117] (8) and [153] (7). Throughout the overall assemblage, [117] is most notable for the finds recovered, although [71] is also more widely represented in terms of the finds recovered. In quantity the amount is relatively small, however, weighing little more than 2.8kgs in total.

The *iron assemblage* can be subdivided into roughly equal numbers of roves/rivets and simple nails (c.24 finds units in each category), and in many cases these are bent and distorted. This is suggestive of materials being removed from wooden pieces to be recycled (as was noted in 2003). In terms of the roves, [117] is particularly notable with 16 finds units and small numbers scattered through another four contexts [64, 71, 153 and 209]. In the nail category, which includes simple shank fragments in many cases, [117] once again predominates with 13 finds units and small numbers to be found between six other contexts [71, 103, 153, 158, 159 and 209]. The 16 finds units of indeterminate iron are scattered through several contexts, although once again [117] and [71] have the highest numbers (6 and 3, respectively).

Two more significant items of iron were recovered from [158]: <04-101> is a bar of metal which appears to have three perforations along its length. Although x-ray analysis was instructive for this piece suggesting that it is a small iron ingot, it is

possible that this is either a finished item or a broken piece which was destined for reworking. From the same context, [158] <04-121> has been identified as a chisel. It is of very simple form and may have been used for working metal, but detailed technological analysis and x-ray, again, suggests that it was a large nail, rather than a chisel due to the lack of steel welded on to the 'chisel'. Chisels are not particularly common in other contemporary contexts, although Ottoway cites an example from Birka as a comparison for an example from York (Ottoway 1992, 521) and there is another published from Orkney (Batey 2003).

The *stone assemblage* is small, comprising only 5 quartzite pebbles from [71] (presumed to be introduced to the site), and 2 pieces of possibly non-local stone which may have been used as smoothing stones. The most diagnostic find in this category is a thin-walled steatite vessel sherd from [158] <04-102>. This import to Iceland may have been part of the same vessel as the sherd recovered in 2003 and is of a very finely made vessel, in this case, with food debris on its interior face. This is likely to date to the 11th century of thereabouts. It is significant in that it provides at least a provisional dating horizon for the context which included the two tools noted above, but interestingly a context which lacked all metallurgical evidence and only a single nail.

Other finds are limited to a tiny chip of burnt clay <04-11> from [103] which may be pottery, and a clay sphere, <04-152> from [156] of indeterminate function. A British coin (ten pence piece of 1992) <04-63> from [75] was deposited at the end of the 2003 Season.

To conclude therefore, further specialist examination of the metalworking debris would be beneficial, but provisionally it seems likely that this evidence, when combined with the ferrous material, suggests that nails and rivets/roves were being brought together to structure 3 for reworking. This is a feature which seems to be more frequently identified in Icelandic sites, where careful curation of hard-won iron and broken items was needed in a self-sufficient lifestyle.



4. DISCUSSION

The excavations in 2003 revealed that the site could be divided into several phases of activity, though the specific nature of these activities can only be speculated on until further investigations were carried out in 2004. The subsequent discussion is concerned with an overall assessment of structure 3, before placing it into the context of its landscape.

A local smithy

Structure 3, the focus of the 2003 and 2004 excavations, was built shortly after the falling of the *landnám* tephra (871 +/- 2 AD) and had been abandoned well before the falling of the H-1104 tephra (1104 AD). Thus, the construction, occupation and use of the structure lasted less than c. 200 years, and would have been in use by several generations of occupants at Höfðagerði.

The structure itself was fairly typical in its arrangement. It was cut in to the slope, and the walls consisted of turf constructed in a *strengur* fashion, and it had internal wooden posts that were load bearing and supported a roof. It also had an entrance facing down slope, with what appeared to be a door as well as internal posts and turf walls supporting a porch. Furthermore, there were indications of internal divisions and ‘furniture’. But beyond these more ‘typical’ features, there were some that were more unusual. For example, an external ‘gully’ that mirrored the shape of the turf wall and ran downslope. In particular there are no other comparisons for gully features like this one. The discovery of a gully questions the type of roof material, whether or not it was made from turf, assuming that the gully provided the function of an eaves drainage gully, on the up-slope side. In recent examples of turf roof construction drainage around the structure was not needed as the water dissipated within the roof turf and the walls. And in terms of ‘function’, what was the gully used for? It is likely, whether or not it was used as an eaves gully, that it redirected water coming from the slope. And whether the collected water was used for a particular use can only be speculated upon, but it seems possible that if the structure had a smithy function that it was used for metal processing in some form.

In addition to the gully, some more typical features of the structure were present, such as the size of the artefact assemblage and the items that formed it, indicating that the material was being used for metal working. For instance, the discovery of nails and roves within the collapse deposits suggested that wood was used for the construction of the structure, and that when it was dismantled these objects were left behind. But it is not known if these objects were connected to the wooden support for the roof, or, indeed for that matter, associated with the curation of materials that were being recycled for local metal working (see finds discussion). Also, there were items, such as the ingot, and other smaller fragments of metal, that were probably connected with the curation of objects for metal working. As the finds analysis suggests, the artefact assemblage was probably used for local subsistence purposes, rather than anything larger. So, in substance, the excavations of structure 3 indicate that it was used for the storage and production of metal work for use on the farm.

<i>Material</i>	<i>Count</i>	<i>Weight (g)</i>
Bone	0	65
Clay	13	13.17
Coprolite	1	2.83
Iron	384	2478.56
Metal	1	6.75
Slag	10	389
Steatite	3	236.43
Stone	12	574.28
Wood	79	81.97

Table 2. Finds quantities from excavation of Structure 3 (all years).

Not all materials were recycled. Some were deposited as waste, used as possible spread on the fields to increase fertility of the soil. Outside the structure, in particular the dumping of waste in the areas up-slope, on the east and the north sides suggested deliberate building and development of manure material suitable for localised soil improvement within the infield area; a team from University of Stirling and University of Chicago carried out a coring and test pitting programme within the infield area of Höfðagerði sampling for manuring practice and soil improvement evidence in the soil; some localised evidence was found (Ian A. Simpson *pers com.*).

<i>Context type</i>	<i>Count</i>	<i>Weight (g)</i>
<u>Use</u>		
Floor	201	855.33
Pit	9	62.01
Posthole	4	139.15
Dump	181	1312.99
Surface	17	83.22
Spread	26	323.6
<u>Post-use</u>		
Aeolian	11	218.29
Undefined	30	33.11
Collapse	24	820.29

Table 3. Distribution of artefacts in context type, divided by use (Phase 1) and post-use (Phases 2-5) contexts.

However, in the deposits relating to the structure itself, things occurring both inside the structure (e.g. floors, pits, postholes) and those outside the structure (e.g. dumps, surfaces and spreads), there was a large quantity of material found (cf. table 3). As Table 3 suggests, the floors contained principally a large assemblage of iron objects (198 fragments, 853g), as well as some wood. The pits and postholes contained a more mixed assemblage, including iron objects. While the external deposits, contained a large assemblage of iron objects (139 fragments, 1500 g). The post-use deposits were considerably smaller in their assemblage size, but none the less contained some significant artefacts, such as 2 of the 3 steatite vessel fragments.

The midden deposits would have also defined external activities associated with the structure, such as movement around it. These midden deposits were concentrated in the northern area, as well as spreading along the western side of the structure. The dumping of material extended north of the entrance, and around the northern part of the structure, the furthest external area. The material coming from the couple of midden deposits was characteristically mixed, including 'lost' small curated objects. As Tables 2 and 3 suggests, the artefact assemblage was relatively diverse for a structure that was not used for domestic activities. Or rather the assemblage suggests that there were fairly routinized recycling of materials, whether being found in curated

or stored environments, say within the structure, as opposed to materials being found in the middens. The high charcoal and ash content of the middens also suggests that much of this material was being burnt, perhaps as a by-product of the smithying activities occurring inside the structure. Further analysis on the materials, especially the iron and metal working residues would certainly be beneficial and lead to an insight in to the curation of artefacts for recycling and future uses on what was probably a small farm.

The Viking and Medieval farm complex

Continuing on from the discussion in the 2003 report, the structures identified during the survey and evaluation/excavation for formed a Viking farm complex. The structures that were evaluated had gone out of use by 1104, and therefore dated to the very earliest periods in Iceland's settlement history. The structures also included *landnám* tephra in the turf walls, as well as in the collapse within these structures. Furthermore, the thickness of the collapse sequences that were sealed by V-1477 suggest that this structure had been abandoned for some time before 1477 (Aldred & Adolf Friðriksson 2003). And finally, the structures within the Viking farm complex had a similar orientation suggesting contemporaneity. A fuller discussion of the evidence was discussed in the previous report (Aldred 2003).

A group of different activities took place south of structures 1, 2 and 3. It may be that this area had Viking period activity that bridges, say the 1104 abandonment of structure 3, and the Medieval period activity to the south. This is focused around the farm mound area. There was evidence of further localised midden formation, particularly down slope of the farm mound, which was seen in the excavation of the test pits and from the coring programme in 2003. The interpretation of a Medieval date in this area was based primarily on the nature of the deposits, and the subsequent activity that occurred after Viking period Structure 3 was abandoned. However, further investigations will be needed to begin to confirm this interpretation, particularly within the mounded area itself as well as around its periphery on the north, east and west sides, but suffice to say that there is already a hint of a not unexpected activity.

Site wide and landscape context

What concerns us here is a discussion on the implications of this arrangement, and what, if any, continuity can be shown to have influenced the subsequent Medieval farm complex arrangement? The excavations at a number of different locations across the site of Höfðagerði suggested a connected chronological sequence, as one might expect. The homefield boundary, in theory, should demonstrate the complete sequence of activities on the site. This is because it was a feature that would have been regularly maintained, and rebuilt, so, thus, any surviving elements of the boundary will have been incorporated into the rebuild. Fortunately, this was the case with the boundary at the point of excavation. What was visible was the initial site formation phase - post *landnám* - the V-1300 phase, as well as the V-1477 and V-1717 tephras. However, the absence of H-1104 was not unsurprising given its fragility in survival in Structure 3. Thus, as chronological framework, the homefield boundary suggests at least two main periods of activity that connect with what was observed in Structure 3. Both of these observations were pre-1477: the first post *landnám* with the construction of the homefield, and the second, shortly after 1300, with a rebuild of the boundary. This framework correlates extremely well with what was found in the excavations.

Firstly, structures 1 and 3 demonstrated early construction and abandonment before 1104, but also demonstrated a complete abandonment sometime before 1477. The small-scale test pitting south the inferred farm mound area (feature 10) showed a build of deposits sometime before 1477, but no evidence of H-1104 was found, again. Although it is characteristic for H-1104 not to survive well it is possible that the feature 10 area and the deposit formation were from the later phase, post 1300 but before 1477. Further excavation would be needed to confirm this hypothesis.

The boundary system seen at Höfðagerði shows a number of interesting features. In particular the southern most boundary and encloses an area of possible meadow between the river, runs in a curvilinear form using the hill on the west side as one edge. This boundary joins onto the infield or homefield boundary where there is a confluence of three different boundaries; the infield boundary may have been completely rebuilt, changing the course of the original boundary or a reinforcement of

a specific function such as stock management or demarcation of outfield areas or for water-management. The combination of good structural survival as well as other features such as boundaries and enclosures make Höfðagerði an interesting case study for an abandoned farm.

The excavations at Höfðagerði were revealing of its archaeology. Firstly, due to the poor preservation of the supposed 'long house' another structure was sought for excavation. Structure 3 was evaluated and deemed to be suitable for excavation. What was hoped was that this structure would have enough of a presence to suggest the wider activity occurring across the site. While the degree of certainty was fairly good, as demonstrated by the corroboration with other excavated or evaluated features across the site, what was not expected was the well preserved floors and artefactual material coming from the structure. The assemblage was relatively large by excavation standards in Iceland, and also by the size of the structure and excavation area which contained the finds originally.

5. APPENDICES

EXCAVATION UNIT INFORMATION

Units

No	Type	Group	Area	Description	Material	Contextual	Date	ID
1	Group	79	1	HFR03 LOE	N/A	Trench	24/07/2003	SN/JZ
2	Group	79	1	HFR02 sondage through structure 3	N/A	Trench	24/07/2003	CMH
3	Group	0		HFR02 sondage through structure 2	N/A	Trench	24/07/2003	OA
4	Deposit	80	1	Windblown material across site	Mixed Silts	Aeolian	25/07/2003	AC
5	Deposit	80	1	V-1477 tephra	Tephra	Aeolian	25/07/2003	OA
6	Group	0	2	Midden test 1 section	N/A	Trench	25/07/2003	JW
7	Group	0	2	Midden test 2 section	N/A	Trench	25/07/2003	JW
8	Group	0	2	Midden test 3 section	N/A	Trench	25/07/2003	JW
9	Group	0	2	Midden test 4 section	N/A	Trench	25/07/2003	JW
10	Group	0	2	Midden test 5 section	N/A	Trench	25/07/2003	JW
11	Group	0	2	Midden test 6 section	N/A	Trench	25/07/2003	JW
12	Group	12	2	Midden test 7 section	N/A	Trench	25/07/2003	JW
13	Deposit	12	2	Midden test 7 topsoil and turf	N/A	Undefined	25/07/2003	JW
14	Deposit	12	2	Midden test 7 windblown?	Mixed Silts	Aeolian	25/07/2003	JW
15	Deposit	12	2	Midden test 7 peatash	Peatash	Dump	25/07/2003	JW
16	Deposit	12	2	Midden test 7 pink peatash	Peatash	Dump	25/07/2003	JW
17	Deposit	12	2	Midden test 7 sand	Sand	Unknown	25/07/2003	JW
18	Deposit	80	1	Topsoil and turf	N/A	Undefined	25/07/2003	OA
19	Group	0	5	Group of contexts within test trench 8	N/A	Trench	28/07/2003	MC
20	Deposit	0	2	Test trench 7 turf debris/collapse	Turves	Collapse	28/07/2003	JW
21	Deposit	19	5	Test trench 8 orange brown silt	Mixed Silts	Aeolian	29/07/2003	MC
22	Deposit	19	5	Test trench 8 charcoal rich ash dump	Ash	Dump	29/07/2003	MC
23	Deposit	19	5	Test trench 8 orange brown with ash	Mixed Silts	Dump	29/07/2003	MC
24	Deposit	19	5	Test trench 8 turf collapse	Turves	Collapse	29/07/2003	MC
25	Deposit	19	5	Test trench 8 dark silt floor layer	Mixed Silts	Floor	29/07/2003	MC
26	Deposit	80	1	Turf collapse	Turves	Collapse	29/07/2003	OA

27	Deposit	19	5	Test trench 8 orange brown silt	Mixed Silts	Aeolian	29/07/2003	JW
28	Deposit	19	5	Test trench 8 charcoal rich silt	Mixed Silts	Unknown	29/07/2003	JW
29	Deposit	19	5	Test trench 8 charcoal rich ash dump	Ash	Dump	29/07/2003	JW
30	Deposit	19	5	Test trench 8 orange brown turf collapse	Turves	Collapse	29/07/2003	JW
31	Cut	19	5	Posthole	Cut interface	Posthole	31/07/2003	MC
32	Cut	19	5	Intercut negative feature	Cut interface	Unknown	31/07/2003	MC
33	Deposit	19	5	Mottled orange clayey silt disturbed prehistoric soil	Mixed Silts	Aeolian	31/07/2003	MC
34	Deposit	19	5	Orange clayey silt-prehistoric soil	Tephra	Aeolian	31/07/2003	MC
35	Deposit	80	1	Olive green turf collapse	Turves	Collapse	31/07/2003	KK
36	Deposit	80	1	Blue turf collapse	Turves	Collapse	31/07/2003	AK
37	Cut	12	2	Cut for small posthole in east of trench 7	Cut interface	Posthole	31/07/2003	MC
38	Deposit	12	2	Fill of posthole [37]	Undefined	Backfill	31/07/2003	MC
39	Cut	12	2	Cut for posthole at west end of trench	Cut interface	Posthole	31/07/2003	MC
40	Deposit	12	2	Fill of posthole [39]	Undefined	Backfill	31/07/2003	MC
41	Deposit	12	2	Possible old ground surface	Undefined	Surface	31/07/2003	MC
42	Deposit	12	2	Tephra within possible old ground surface	Tephra	Aeolian	31/07/2003	MC
43	Deposit	12	2	Turf collapse	Turves	Collapse	31/07/2003	MC
44	Cut	12	2	Cut for posthole in middle of north part of trench	Cut interface	Posthole	31/07/2003	MC
45	Deposit	12	2	Fill of posthole [44]	Undefined	Backfill	31/07/2003	MC
46	Deposit	82	1	Mottled turf collapse	Turves	Collapse	01/08/2003	OA
47	Deposit	81	1	Peatash deposit	Peatash	Dump	01/08/2003	SN
48	Deposit	81	1	Sheet midden dark grey clayey silt	Mixed Silts	Dump	01/08/2003	JZ
49	Deposit	82	1	Windblown material with charcoal and turf mix	Mixed Silts	Aeolian	04/08/2003	OA
50	Group	85	1	Gully group around structure	N/A	Gully	05/08/2003	OA
51	Group	0	3	Trench in structure 1	N/A	Trench	06/08/2003	OA
52	Deposit	82	1	Windblown deposit	Mixed Silts	Aeolian	07/08/2003	AK
53	Deposit	83	1	Spread/sheet midden	Mixed Silts	Dump	07/08/2003	JZ

54	Deposit	82	1	Windblown inside structure	Mixed Silts	Aeolian	07/08/2003	CH
55	Deposit	82	1	Yellow windblown outside structure	Mixed Silts	Aeolian	07/08/2003	JZ
56	Deposit	82	1	Mixed upper turf collapse	Turves/Other	Collapse	08/08/2003	SN
57	Deposit	82	1	Windblown material outside building	Mixed Silts	Aeolian	08/08/2003	JZ
58	Deposit	51	3	V-1477 tephra	Tephra	Aeolian	08/08/2003	KK
59	Deposit	51	3	Windblown deposit	Mixed Silts	Aeolian	08/08/2003	KK
60	Deposit	51	3	Turf collapse	Turves	Collapse	08/08/2003	KK
61	Deposit	51	3	Wall	Turf	Wall	08/08/2003	KK
62	Group	99	4	Trench through home field boundary	N/A	Trench	08/08/2003	OA
63	Group	0	2	Tom's midden trench from 2002	N/A	Trench	08/08/2003	OA
64	Deposit	83	1	Sheet midden north end (same as [053])	Mixed Silts	Dump	11/08/2003	OA
65	Deposit	82	1	Light grey windblown around south doorway	Mixed Silts	Aeolian	12/08/2003	JZ
66	Deposit	82	1	Turf debris and windblown around south doorway	Mixed Silts	Collapse	12/08/2003	OA
67	Deposit	82	1	Light grey windblown around south doorway	Mixed Silts	Aeolian	12/08/2003	OA
68	Deposit	82	1	Turf debris in gully	Turf fragments	Collapse	13/08/2003	JZ
69	Group	0	4	Group number for section across linear boundary	N/A	Undefined	13/08/2003	AMC
70	Deposit	85	1	Turf wall of structure	Turf	Wall	22/09/2003	OA
71	Deposit	83	1	Dark greyish brown sheet midden	Mixed Silts	Dump	24/09/2003	OA
72	Deposit	85	1	Turf walls of entrance/porch W side	Turf	Wall	24/09/2003	OA
73	Deposit	82	1	Primary turf collapse	Turves	Collapse	24/09/2003	OA
74	Deposit	82	1	Turf collapse from porch wall/w side	Turves	Collapse	24/09/2003	OA
75	Deposit	84	1	Entrance surface - Turf debris/compacted	Turves/Other	Surface	24/09/2003	OA
76	Deposit	82	1	Turf debris, remnants SW area 1	Turf	Undefined	24/09/2003	OA
77	Deposit	85	1	Upcast under wall + LNL turf	Mixed Silts	Upcast	24/09/2003	OA
78	Deposit	84	1	Blocking S end between turf wall [70]	Turf	Construction	24/09/2003	OA

79	Group	0	1	Archaeological investigations	N/A	Undefined	25/09/2003	OA
80	Group	0	1	Site abandonment formation 2 - Phase 5	N/A	Undefined	25/09/2003	OA
81	Group	0	1	Temporary re-use in the form of dumping - Phase 4	N/A	Dump	25/09/2003	OA
82	Group	0	1	Site abandonment formation 1 - Phase 3	N/A	Undefined	25/09/2003	OA
83	Group	0	1	Sheet midden formation - Phase 2	N/A	Dump	25/09/2003	OA
84	Group	0	1	Occupation of structure connected with use - Phase 2	N/A	Undefined	25/09/2003	OA
85	Group	0	1	Construction - Phase 1	N/A	Construction	25/09/2003	OA
86	Deposit	51	3	Topsoil/tephra V-1717	N/A	Undefined	25/09/2003	OA
87	Deposit	100	4	Topsoil/turf (1)	N/A	Undefined	24/09/2003	OA
88	Deposit	100	4	Turf + windblown (2, 3, 4, 5, 7)	Turves/Other	Undefined	24/09/2003	OA
89	Deposit	100	4	V-1717 (6)	Tephra	Aeolian	25/09/2003	OA
90	Deposit	100	4	Deposit formation from windblown/erosion [above V-1477] (8, 9, 10, 11, 12, 13, 14, 15)	Turves/Other	Undefined	25/09/2003	OA
91	Deposit	100	4	V-1477 (16, 19)	Tephra	Aeolian	25/09/2003	OA
92	Deposit	100	4	Turf + windblown formation (17, 18, 20)	Turves/Other	Undefined	25/09/2003	OA
93	Deposit	100	4	Turf collapse/slippage (23)	Turves	Collapse	25/09/2003	OA
94	Deposit	101	4	1300 rebuild; turf and windblown mix (21, 22, 36)	Turves/Other	Wall	25/09/2003	OA
95	Deposit	98	4	Boundary wall (24, 25, 26, 27, 28, 29, 30)	Turf	Wall	25/09/2003	OA
96	Deposit	0	4	LNL tephra sequence (31, 32)	Tephra	Aeolian	25/09/2003	OA
97	Deposit	0	4	Natural windblown and H3	Tephra	Aeolian	25/09/2003	OA
98	Group	102	4	Vertical interface of a shearing or slumping edge and group for boundary (35)	Interface	Wall	25/09/2003	OA
99	Group	0	4	Archaeological investigations	N/A	Undefined	25/09/2003	OA
100	Group	0	4	Abandonment - Phase 3	N/A	Undefined	25/09/2003	OA
101	Group	0	4	Rebuild/secondary	N/A	Undefined	25/09/2003	OA

				use - Phase 2				
102	Group	0	4	Construction and primary use - Phase 1	N/A	Undefined	25/09/2003	OA
103	Deposit	83	1	Charcoal mix midden	Turves/Ash	Dump	21/07/2004	LP
104	Deposit	83	1	Upcast windblown	Mixed Silts	Aeolian	23/07/2004	LP
105	Deposit	111	1	Slot [106]	Mixed Silts	Beamslot	23/07/2004	OA
106	Cut	111	1	Slot [105]	Cut interface	Beamslot	23/07/2004	OA
107	Deposit	111	1	Post / stakehole	Mixed Silts	Posthole	23/07/2004	OA
108	Cut	111	1	Post / stakehole	Cut interface	Posthole	23/07/2004	OA
109	Deposit	111	1	Stakehole	Mixed Silts	Posthole	23/07/2004	OA
110	Cut	111	1	Stakehole	Cut interface	Posthole	23/07/2004	OA
111	Group	84	1	Cut features [106, 108, 110, 113]	Undefined	Construction	23/07/2004	OA
112	Deposit	111	1	Stakehole	Mixed Silts	Posthole	23/07/2004	OA
113	Cut	111	1	Stakehole	Cut interface	Posthole	23/07/2004	OA
114	Cut	84	1	Cut of gully (N end) filled by [71]	Cut interface	Gully	26/07/2004	OA
115	Deposit	83	1	Windblown in gully	Mixed Silts	Aeolian	26/07/2004	LP
116	Cut	84	1	Cut of gully	Cut interface	Gully	26/07/2004	LP
117	Deposit	84	1	Immediate abandonment / re-use? deposit / floor	Mixed Silts	Floor	28/07/2004	OA
118	Deposit	83	1	Windblown yellowish deposit on edge of gully	Mixed Silts	Aeolian	28/07/2004	LP
119	Deposit	120	1	Compacted entrance surface	Mixed Silts	Surface	28/07/2004	FP
120	Group	84	1	Entrance deposits	N/A	Doorway	28/07/2004	OA
121	Deposit	84	1	Charcoal rich deposit	Turves/Ash	Surface	28/07/2004	LP
122	Deposit	84	1	Charcoal rich deposit	Turves/Ash	Surface	28/07/2004	LP
123	Group	85	1	Postholes and postpads (in entrance) [135 - 142]	N/A	Doorway	28/07/2004	FP
124	Deposit	123	1	Posthole [135]	Mixed Silts	Posthole	29/07/2004	FP
125	Deposit	82	1	Greyish/purple ?turf collapse/debris	Turves	Collapse	29/07/2004	LP
126	Deposit	123	1	Posthole [136]	Mixed Silts	Posthole	29/07/2004	FP
127	Deposit	123	1	Posthole [137]	Mixed Silts	Posthole	29/07/2004	FP
128	Deposit	123	1	Posthole [138]	Mixed Silts	Posthole	29/07/2004	FP
129	Deposit	123	1	Posthole [139]	Mixed Silts	Posthole	29/07/2004	FP
130	Deposit	123	1	Posthole [140]	Mixed Silts	Posthole	29/07/2004	FP
131	Deposit	248	1	Post pad [140]	Stones	Postpad	29/07/2004	FP
132	Deposit	123	1	Posthole [141]	Mixed Silts	Posthole	29/07/2004	FP
133	Deposit	123	1	Posthole [142]	Mixed Silts	Posthole	29/07/2004	FP
134			1	VOID			29/07/2004	FP
135	Cut	123	1	Posthole	Cut interface	Posthole	29/07/2004	FP
136	Cut	123	1	Posthole	Cut interface	Posthole	29/07/2004	FP
137	Cut	123	1	Posthole	Cut interface	Posthole	29/07/2004	FP
138	Cut	123	1	Posthole	Cut interface	Posthole	29/07/2004	FP
139	Cut	123	1	Posthole	Cut interface	Posthole	29/07/2004	FP
140	Cut	123	1	Posthole	Cut interface	Posthole	29/07/2004	FP

141	Cut	123	1	Posthole	Cut interface	Posthole	29/07/2004	FP
142	Cut	123	1	Posthole	Cut interface	Posthole	29/07/2004	FP
143	Deposit	85	1	Trample (external)	Turf fragments	Construction	29/07/2004	LP
144	Deposit	82	1	Collapse (lower greyish white)	Turves	Collapse	29/07/2004	OA
145	Deposit	147	1	Posthole / pit	Mixed Silts	Posthole	30/07/2004	LP
146	Cut	147	1	Posthole / pit	Cut interface	Posthole	30/07/2004	LP
147	Group	85	1	Post depressions and postholes [146, 152, 151, 150, 154, 157, 204] (EXTERNAL)	N/A	Posthole	30/07/2004	LP
148	Deposit	147	1	Posthole [150]	Mixed Silts	Posthole	30/07/2004	LP
149	Group	85	1	Postholes and postpads inside the structure associated with its use	N/A	Posthole	30/07/2004	LP
150	Cut	147	1	Posthole	Cut interface	Posthole	03/08/2004	LP
151	Cut	147	1	Posthole	Cut interface	Posthole	03/08/2004	LP
152	Cut	147	1	Posthole	Cut interface	Posthole	03/08/2004	LP
153	Deposit	84	1	Floor occupation surface of structure	Mixed Silts	Floor	03/08/2004	OA
154	Cut	147	1	Posthole	Cut interface	Posthole	03/08/2004	LP
155	Deposit	147	1	Posthole [154]	Mixed Silts	Posthole	03/08/2004	LP
156	Deposit	147	1	Posthole [157]	Mixed Silts	Posthole	03/08/2004	LP
157	Cut	147	1	Posthole [156]	Cut interface	Posthole	03/08/2004	OA
158	Deposit	84	1	Charcoal rich burnt spread SE corner of structure	Turves/Ash	Spread	03/08/2004	OA
159	Deposit	84	1	Light greyish deposit similar to [117]; under [158]	Turves	Undefined	04/08/2004	KE
160	Deposit	149	1	Posthole [167]; 500/510	Mixed Silts	Posthole	04/08/2004	KE
161	Deposit	149	1	Posthole [168]; 500/510; * under [117]	Mixed Silts	Posthole	04/08/2004	LP
162	Deposit	149	1	Posthole [170]; 505/510	Mixed Silts	Posthole	04/08/2004	FP
163	Deposit	149	1	Posthole [169]; 500/510; * under [117]	Mixed Silts	Posthole	04/08/2004	FP
164	Deposit	149	1	Posthole [177]; 500/510	Mixed Silts	Posthole	04/08/2004	FP
165	Deposit	149	1	Posthole [171]; 500/510	Mixed Silts	Posthole	04/08/2004	FP
166	Deposit	149	1	Posthole [172]; 500/510	Mixed Silts	Posthole	04/08/2004	FP
167	Cut	149	1	Posthole [160]; 500/510	Cut interface	Posthole	04/08/2004	FP
168	Cut	149	1	Posthole [161]; 500/510; * under [117]	Cut interface	Posthole	04/08/2004	LP
169	Cut	149	1	Posthole [163]; 500/510; * under [117]	Cut interface	Posthole	04/08/2004	FP

170	Cut	149	1	Posthole [162]; 505/510	Cut interface	Posthole	04/08/2004	KE
171	Cut	149	1	Posthole [165]; 500/510	Cut interface	Posthole	04/08/2004	LP
172	Cut	149	1	Posthole [166]; 500/510	Cut interface	Posthole	04/08/2004	FP
173	Deposit	149	1	Posthole [205]; 505/505	Mixed Silts	Posthole	04/08/2004	KE
174	Deposit	149	1	Posthole [206]; 505/505	Mixed Silts	Posthole	04/08/2004	KE
175	Deposit	149	1	Posthole [227]; 505/505	Mixed Silts	Posthole	04/08/2004	KE
176	Deposit	149	1	Posthole [220]; 505/505	Mixed Silts	Posthole	04/08/2004	KE
177	Cut	149	1	Posthole [164]; 500/510	Cut interface	Posthole	04/08/2004	FP
178	Deposit	149	1	Posthole [179]; 500/505	Mixed Silts	Posthole	04/08/2004	LP
179	Cut	149	1	Posthole [178]; 500/505	Cut interface	Posthole	04/08/2004	LP
180	Deposit	149	1	Posthole [181]; 500/505	Mixed Silts	Posthole	04/08/2004	LP
181	Cut	149	1	Posthole [180]; 500/505	Cut interface	Posthole	04/08/2004	LP
182	Deposit	149	1	Posthole [183]; 500/505	Mixed Silts	Posthole	04/08/2004	LP
183	Cut	149	1	Posthole [182]; 500/505	Cut interface	Posthole	04/08/2004	LP
184	Deposit	149	1	Posthole [185]; 500/505	Mixed Silts	Posthole	04/08/2004	LP
185	Cut	149	1	Posthole [184]; 500/505	Cut interface	Posthole	04/08/2004	LP
186	Deposit	149	1	Posthole [187]; 500/505	Mixed Silts	Posthole	04/08/2004	LP
187	Cut	149	1	Posthole [186]; 500/505	Cut interface	Posthole	04/08/2004	LP
188	Deposit	149	1	Posthole [189]; 500/505	Mixed Silts	Posthole	04/08/2004	LP
189	Cut	149	1	Posthole [188]; 500/505	Cut interface	Posthole	04/08/2004	LP
190	Deposit	149	1	Posthole [191]; 500/505	Mixed Silts	Posthole	04/08/2004	LP
191	Cut	149	1	Posthole [190]; 500/505	Cut interface	Posthole	04/08/2004	LP
192	Deposit	149	1	Posthole [193]; 500/505	Mixed Silts	Posthole	04/08/2004	LP
193	Cut	149	1	Posthole [192]; 500/505	Cut interface	Posthole	04/08/2004	LP
194	Deposit		1	Posthole [195]; 500/505	Mixed Silts	Posthole	04/08/2004	LP
195	Cut	149	1	Posthole [194]; 500/505	Cut interface	Posthole	04/08/2004	LP
196	Deposit	149	1	Posthole [197]; 500/505	Mixed Silts	Posthole	04/08/2004	LP
197	Cut	149	1	Posthole [196]; 500/505	Cut interface	Posthole	04/08/2004	LP
198	Deposit	149	1	Posthole [199]; 500/505	Mixed Silts	Posthole	04/08/2004	LP
199	Cut	149	1	Posthole [198];	Cut interface	Posthole	04/08/2004	LP

				500/505				
200	Deposit	149	1	Posthole [201]; 500/505	Mixed Silts	Posthole	04/08/2004	LP
201	Cut	149	1	Posthole [200]; 500/505	Cut interface	Posthole	04/08/2004	LP
202	Deposit	147	1	Posthole [152]	Mixed Silts	Posthole	04/08/2004	LP
203	Deposit	147	1	Posthole [151]	Mixed Silts	Posthole	04/08/2004	LP
204	Group	147	1	Stakeholes (external)	N/A	Posthole	04/08/2004	LP
205	Cut	149	1	Posthole [173]; 505/505	Cut interface	Posthole	05/08/2004	KE
206	Cut	149	1	Posthole [174]; 505/505	Cut interface	Posthole	05/08/2004	KE
207	Deposit	149	1	Posthole [208]; 500/505	Mixed Silts	Posthole	05/08/2004	KE
208	Cut	149	1	Posthole [207]; 500/505	Cut interface	Posthole	05/08/2004	KE
209	Deposit	247	1	Post pit [240]; 500/500	Mixed Silts	Pit	05/08/2004	OA
210	Deposit	247	1	Post pit / hearth [233]; 500/500	Mixed Silts	Pit	05/08/2004	OA
211	Deposit	149	1	Posthole [239]; 500/500	Mixed Silts	Posthole	05/08/2004	OA
212	Deposit	149	1	Posthole [228]; 500/500	Mixed Silts	Posthole	05/08/2004	OA
213	Deposit	149	1	Posthole [232]; 500/500	Mixed Silts	Posthole	05/08/2004	OA
214	Deposit	149	1	Posthole [235]; 500/500	Mixed Silts	Posthole	05/08/2004	OA
215	Deposit	248	1	Postpad for posthole [232]; 500/500	Mixed Silts	Postpad	05/08/2004	OA
216	Deposit	149	1	Posthole [232]; 500/500	Mixed Silts	Posthole	05/08/2004	OA
217	Deposit	149	1	Posthole [230]; 500/500	Mixed Silts	Posthole	05/08/2004	OA
218	Deposit	149	1	Posthole [234]; 500/500	Mixed Silts	Posthole	05/08/2004	OA
219	Deposit	149	1	Posthole [237]; 500/500	Mixed Silts	Posthole	05/08/2004	OA
220	Cut	149	1	Posthole [176]; 505/505	Cut interface	Posthole	05/08/2004	SM
221	Deposit	149	1	Posthole [241]; 505/500	Mixed Silts	Posthole	06/08/2004	OA
222	Deposit	149	1	Posthole [244]; 505/500	Mixed Silts	Posthole	06/08/2004	OA
223	Deposit	149	1	Posthole [239]; 505/500	Mixed Silts	Posthole	06/08/2004	OA
224	Deposit	248	1	Postpad no posthole (503/505)	Mixed Silts	Postpad	06/08/2004	OA
225	Deposit	149	1	Posthole [243]; 505/500	Mixed Silts	Posthole	06/08/2004	OA
226	Deposit	149	1	Posthole [242]; 505/500	Mixed Silts	Posthole	06/08/2004	OA
227	Cut	149	1	Posthole [175]; 505/505	Cut interface	Posthole	05/08/2004	KE
228	Cut	149	1	Posthole [212]; 500/500	Cut interface	Posthole	05/08/2004	SM
229	Deposit	247	1	Post pit / hearth	Mixed Silts	Pit	05/08/2004	OA

				[233]; 500/500				
230	Cut	149	1	Posthole [217]; 500/500	Cut interface	Posthole	05/08/2004	KE
231	Deposit	247	1	Post pit / hearth [233]; 500/500	Mixed Silts	Pit	05/08/2004	OA
232	Cut	149	1	Posthole [213]; 500/500	Cut interface	Posthole	05/08/2004	SM
233	Cut	247	1	Post pit / hearth [210, 229, 231]; 500/500	Cut interface	Pit	05/08/2004	OA
234	Cut	149	1	Posthole [218]; 500/500	Cut interface	Posthole	05/08/2004	KE
235	Cut	149	1	Posthole [214]; 500/500	Cut interface	Posthole	05/08/2004	SM
236	Cut	149	1	Posthole [215, 216]; 500/500	Cut interface	Posthole	05/08/2004	OA
237	Cut	149	1	Posthole [219]; 500/500	Cut interface	Posthole	05/08/2004	KE
238	Cut	149	1	Posthole [223]; 505/500	Cut interface	Posthole	05/08/2004	FP
239	Cut	149	1	Posthole [211]; 500/500	Cut interface	Posthole	05/08/2004	SM
240	Cut	247	1	Post pit [209]; 500/500	Cut interface	Pit	05/08/2004	OA
241	Cut	149	1	Posthole [221]; 505/500	Cut interface	Posthole	05/08/2004	LP
242	Cut	149	1	Posthole [226]; 505/500	Cut interface	Posthole	05/08/2004	KE
243	Cut	149	1	Posthole [225]; 505/500	Cut interface	Posthole	05/08/2004	FP
244	Cut	149	1	Posthole [222]; 505/500	Cut interface	Posthole	05/08/2004	FP
245	Cut	85	1	Cut of structure	Cut interface	Construction	06/08/2004	OA
246	Deposit	0	1	Tephra landnám in situ	Tephra	Natural	06/08/2004	OA
247	Group	84	1	Post pit & hearth features [210, 229, 231, 233] and [209, 240]; 500/500	N/A	Pit	14/01/2005	OA
248	Group	85	1	Stones used as postpads	Stones	Postpad	18/01/2005	OA

Finds

Finds No	No	Material	Object	Notes	Count	Weight (g)
03_1	15	Iron	Rivet/Rove	Test Trench 7	1	6
03_2	15	Iron	Rivet/Rove	Test Trench 7	1	6
03_3	16	Iron	Nail	Test Trench 7 = bulk sample	3	14
03_4	15	Stone	Whetstone	Test Trench 7	1	18
03_5	15	Stone	Gaming Piece	Test Trench 7	1	5
03_6	15	Bone	N/A	Test Trench 7-3bags	0	0
03_7	15	Iron	Rivet/Rove	Test Trench 7	1	3
03_8	16	Iron	Rivet/Rove	Test Trench 7	1	9

03_9	16	Metal	Rivet/Rove	Test Trench 7	8	34
03_10	16	Slag	Slag	Test Trench 7	6	40
03_11	16	Bone	N/A	Test Trench 7	0	0
03_12	17	Bone	N/A	Test Trench 7	0	0
03_13	17	Copper alloy	Sheet	Test Trench 7	1	1
03_14	20	Bone	N/A	Test Trench 7	0	0
03_15	20	Stone	Spindle Whorl	Test Trench 7	1	3
03_16	20	Metal	Nail	Test Trench 7	2	17
03_17	20	Slag	Slag	Test Trench 7	1	2
03_18	6	Bone	N/A	Test Trench 7	0	0
03_19	10	Bone	N/A	Test trench 5	0	0
03_20	11	Bone	N/A	Test trench 6	0	0
03_21	6	Bone	N/A	Test trench 1	0	0
03_22	7	Bone	N/A	Test trench 2	0	0
03_23	20	Bone	N/A	Test trench 7	0	0
03_24	20	Metal	Nail	Test trench 7	6	43
03_25	21	Bone	N/A	Test trench 8	0	0
03_26	22	Bone	N/A	Test trench 8	0	0
03_27	22	Iron	UNKNOWN	Test trench 8	1	3
03_28	22	Stone	Bead	Test trench 8	1	2
03_29	23	Bone	N/A	Test trench 8	0	0
03_30	23	Paste	Bead	Test trench 8	1	3
03_31	27	Bone	N/A	Test trench 8	0	0
03_32	28	Bone	N/A	Test trench 8	0	0
03_33	29	Bone	N/A	Test trench 8	0	0
03_34	26	Bone	N/A	495/510	0	0
03_35	26	Slag	Slag	Test trench 8	2	24
03_36	30	Bone	N/A	Test trench 8	0	0
03_37	24	Bone	N/A	Test trench 8	0	0
03_38	35	Iron	Nail	505.42/509.95/23.84	1	3
03_39	46	Stone	N/A	501.70/512.06/23.78	1	7
03_40	49	Steatite	Vessel	504.02/501.26/23.71	2	162
03_41	46	Bone	N/A	505.10/509.41/23.69	0	0
03_42	46	Stone	Fire-cracked	502.40/512.73/23.71	2	356
03_43	49	Iron	Nail	504.34/500.90/23.67	1	6
03_44	49	Iron	Nail	504.40/501.03/23.69	1	3
03_45	49	Iron	Nail	504.50/501.40/23.77	1	5
03_46	46	Stone	N/A	505/510	1	2
03_47	46	Iron	Nail	505.70/500.22/23.51	1	5
03_48	46	Iron	Nail	505.75/500.88/23.55	1	6
03_49	46	Iron	Knife	505.70/503.97/23.63	1	8
03_50	46	Iron	Nail	506.65/509.35/23.70	1	4
03_51	46	Slag	Slag	500/510	3	102
03_52	46	Iron	Nail	508.62/511.04/23.16	1	5
03_53	46	Iron	Nail	507.51/513.94/23.24	1	4
03_54	46	Slag	Slag	505/505	1	4
03_55	46	Iron	Pin	503.20/513.69/23.67	2	2
03_56	46	Bone	N/A	500/510	0	5
03_57	46	Slag	Slag	505/510	2	99
03_58	64	Iron	UNKNOWN	508.30/510.67/23.23	2	4
03_59	57	Stone	Unworked Stone	505/510	1	3
03_60	57	Iron	Rivet/Rove	507.50/508.00/23.23	1	2
03_61	57	Iron	Nail	507.35/507.60/23.24	1	3
03_62	56	Slag	Slag	502.70/510.30/23.69	1	151
03_63	57	Iron	Nail	508.10/502.60/23.36	1	4

03_64	57	Bone	N/A	500/505	0	5
03_65	57	Bone	N/A	500/510	0	5
03_66	48	Slag	Slag		1	9
03_67	0	VOID		VOID	0	0
03_68	53	Bone	N/A		0	5
03_69	48	Bone	N/A		0	5
03_70	47	Bone	N/A		0	5
03_71	46	Bone	N/A	500/510	0	5
03_72	46	Bone	N/A	505/510	0	5
03_73	46	Bone	N/A	505/500	0	5
03_74	52	Bone	N/A	505/500	0	5
03_75	57	Bone	N/A	505/505	0	5
03_75	57	Bone	N/A	500/510	0	5
03_77	56	Bone	N/A	505/510	0	5
04_1	64	Iron	Slag		1	2.1
04_2	64	Wood	Charcoal		3	1.16
04_3	64	Wood	Charcoal		1	1.3
04_4	64	Wood	Charcoal		2	2
04_5	64	Wood	Charcoal		4	1.27
04_6	64	Wood	Charcoal		1	3.02
04_7	64	Iron	Slag		1	24.84
04_8	64	Iron	Rove	Rectangular shaped.	1	3.3
04_9	103	Iron	Slag		9	74.59
04_10	103	Wood	Charcoal		1	0.74
04_11	103	Clay		Small chip of burnt clay.	1	0.34
04_12	103	Iron	Nail	Round flat head and broken shank.	1	2.18
04_13	103	Iron	Nail	Nail shank, disformed by corrosion.	1	1.87
04_14	71	Wood	Charcoal		2	2.37
04_15	71	Stone	Pebble	Manuport, quartz	1	4.85
04_16	71	Wood	Charcoal		3	9.73
04_17	71	Iron	Slag		15	62.33
04_18	71	Iron	Slag		3	33.77
04_19	71	Wood	Charcoal		1	8.74
04_20	71	Iron	Rove	Lozenge shaped rove. Broken.	1	2.67
04_21	71	Iron	Slag		1	26.81
04_22	71	Wood	Charcoal		7	4.63
04_23	71	Iron	Indet	Small flat iron fragment.	1	0.29
04_24	71	Iron	Slag		1	1.58
04_25	71	Iron	Slag		1	27.84
04_26	71	Wood	Charcoal		2	1.42
04_27	71	Stone	Pebble	Manuport, quartz	1	8.85
04_28	71	Wood	Charcoal		2	0.92
04_29	71	Stone	Pebble	Manuport, quartz	1	5.58
04_30	71	Iron	Nail	Probably nail shank, rectangular section. Bent at one end.	1	0.91
04_31	71	Wood	Charcoal		3	9.73
04_32	71	Iron	Nail	Nail shanks. One broken in two.	2	1.95
04_33	71	Iron	Slag		1	8.99
04_34	71	Iron	Slag		2	13.22
04_35	71	Wood	Charcoal		1	0.51
04_36	71	Wood	Charcoal		6	1.79
04_37	71	Iron	Slag		1	14.21
04_38	71	Wood	Charcoal		2	1.36

04_39	71	Iron	Slag		2	25.16
04_40	71	Stone		Smoothing stone? Broken.	1	7.01
04_41	71	Wood	Charcoal		7	2.62
04_42	71	Wood	Charcoal		5	2.64
04_43	71	Iron	Slag		1	63.65
04_44	71	Iron	Nail	Rounded nail head	1	0.68
04_45	71	Iron	Slag		1	58.86
04_46	71	Iron	Indet	Small lump.	1	0.14
04_47	71	Iron	Nail	Broken nail shank, square section. Bent at one end.	1	1.57
04_48	71	Iron	Indet	Iron lump.	1	3.65
04_49	71	Wood	Charcoal		3	3.58
04_50	71	Iron	Slag		1	15.18
04_51	71	Stone	Pebble	Manuport, quartz	1	7.06
04_52	71	Iron	Slag		1	3.88
04_53	71	Iron	Nail	Rivet, disformed by corrosion.	2	4.68
04_54	71	Wood	Charcoal		5	1.66
04_55	71	Iron	Slag		1	5.02
04_56	71	Iron	Slag		10	116.42
04_57	71	Iron	Slag		2	12.21
04_58	71	Wood	Charcoal		10	14.79
04_59	71	VOID		Discarted		
04_60	71	Iron	Indet	Iron lump.	1	2.77
04_61	71	Wood	Charcoal		5	3.97
04_62	71	Iron	Slag		1	6.47
04_63	75	Metal	Coin	10 pence since 1992. Left in archaeological working season 2003	1	6.75
04_64	73	Coprolite			1	2.83
04_65	73	VOID		Discarted		
04_66	68	Iron	Slag		1	10.46
04_67	115	Iron	Slag		2	5.29
04_68	117	Iron	Nail	Flat rounded head with broken shank. Head broken	1	3.35
04_69	119	Iron	Indet	Two small lumps and one flat fragment.	3	0.46
04_70	117	Iron	Rivet	Rivet, rectangular rove and lozenge-shaped head. Whole.	1	6.14
04_71	117	Iron	Nail	Corroded nail with broken shank. Flat lozenge shaped head.	1	4.69
04_72	117	Iron	Nail	Lozenge shaped head nad broken shank.	1	5.47
04_73	117	Iron	Rove	Square-ish rove with hole. Disformed by corrosion.	1	1.01
04_74	121	Iron	Slag		12	74.96
04_75	122	Iron	Slag		1	1.05
04_76	117	Iron	Nail	One with round flat head (4,67 g). The other with square-ish flat head but broken (3,72 g). Both have broken shank.	2	8.37
04_77	117	Iron	Nail	A) Lozenge shaped head (4,41 g). B) Round	5	21.5

				headed (6,38 g). C) Square shaped head with round edge (4,85 g). D) Square shaped head with round edge (2,24 g). E) Round head now broken (3,38 g). All the nails have broken shank. Found with roves no. 160 and i		
04_78	145	Iron	Slag		2	14.45
04_79	117	Iron	Rove	A) Lozenge shaped (2,22 g). B) Rectangular shaped with one round edge (1,89 g). C) Rectangular shaped (1,40 g). Found with find no. 159.	3	5.54
04_80	117	Iron	Nail	A) With round flat head (4,92 g). B) Nail with broken head (4,53 g). C) Rove and nail shank, broken (2,52 g). All have broken shank. Found with find no. 156.	3	10.73
04_81	117	Iron	Nail	Nail with broken flat lozenge shaped head and broken shank. Found with roves no. 158.	1	4.01
04_82	117	Iron	Rove	Lozenge shaped rove. Found with find no. 157	1	2.23
04_83	117	Iron	Nail	Round flat head and broken shank. Found with roves, find 156.	1	4.55
04_84	117	Iron	Nail	Curroded nail with head. Rectangular section.	1	3.24
04_85	117	Iron	Nail	Nail with flat triangular head and broken shank. Found with rove no. 155.	1	3.74
04_86	117	Iron	Nail	One nail with with circular head, broken in half (2.56 g). Pin fragm. Rectangular section. Probably of nail shank (0.10 g).	2	3.65
04_87	117	Iron	Slag		2	47.86
04_88	117	Iron	Slag		2	4.12
04_89	117	Iron	Slag		2	1.13
04_90	117	Iron	Slag		3	1.68
04_91	117	Iron	Rove	Square rove with hole, broken (1,29 g) and flat rectangular iron fragment (rove?).	2	1.93
04_92	117	Iron	Indet	Small corroded lump.	1	0.18
04_93	117	Iron	Indet	Flat iron fragments, roves?	2	1.09
04_94	117	Iron	Rove	Rectangular rove with hole.	1	0.91
04_95	117	Iron	Nail	A) Nail with round head (4,19 g). B) Nail with square head (4,71 g). C)	3	13.87

				Nail with flat hammered end (4,94 g). All the nails have broken shanks.		
04_96	117	Iron	Rove	Rectangular rove.	1	2.57
04_97	117	Iron	Object	Nail ? with head oval head and broken shank. Very corroded.	1	4.31
04_98	117	Iron	Nail	Nail with flat lozenge shaped head and broken shank (5,61 g) and square shaped rove with hole. 1/4 broken off (0,96 g).	2	6.56
04_99	117	Iron	Rove	Rove with hole in. Original edges corroded away.	1	0.54
04_100	117	Iron	Indet	Small rectangular iron fragment. Broken at one end.	1	0.67
04_101	158	Iron	Ingot	Metal bar with three perforation along its length. The top is 0,6 mm then 0,7 and 0,5mm across. In conservation.	1	149
04_102	158	Steatite	Vessel	The vessel fragment is burnt on the outside and food debris on inside. Thickness of wall is 13 mm.	1	74.43
04_103	153	Iron	Slag		1	2.77
04_104	153	Iron	Slag		12	10.21
04_105	153	Iron	Nail	A) Two nails, one with lozenge shaped head (3,85 g), the other with square head but now broken (5,15 g). Both with broken shank. B) Broken nail shank (1,79 g). C) Two circular round nail heads (6,34 g). D) Nine roves, square and rectangular shaped (21,8	14	39.05
04_106	153	Iron	Nail	Three square roves with corroded nail shank fragment. One without visible hole (10,74 g in total). Small nail with rectangular section and circular head (0,98 g).	5	11.71
04_107	153	Iron	Rove	Square rove.	1	2.09
04_108	153	Iron	Nail	Nail shank (2,16 g). Three small unidentified iron fragments.	4	2.92
04_109	153	Iron	Object	Corroded iron object with hole. Split in half, rove.	1	1.5
04_110	153	Iron	Slag		14	140.2
04_111	153	Iron	Rove	Square corroded rove.	1	1.24
04_112	153	Iron	Slag		14	4.71
04_113	153	Iron	Object	Probably nail shank, square section.	1	0.71

04_114	153	Wood	Charcoal		3	2.02
04_115	153	Iron	Slag		1	24.94
04_116	153	Iron	Slag		8	315.7
04_117	153	Iron	Slag		3	17.97
04_118	153	Iron	Indet	Small lump.	1	0.4
04_119	117	Iron	Nail	Two nails, one with flat, circular head. One square rove with nail remains in the hole.	3	8.81
04_120	117	Iron	Rivet	Small rivet, disformed by corrosion	1	4.18
04_121	158	Iron	Chisel	In conservation.	1	33.5
04_122	117	Iron	Rove	Square corroded rove with hole.	1	1.97
04_123	117	Iron	Nail	One nail wit round head and broken shank (7,58 g). Four roves, two with holes. All square shaped (7,04 g in total). One triangular shaped plate, rove?	6	15.99
04_124	117	VOID		Discarted		
04_125	117	Iron	Rove	Square rove, almost split in half. Hole not visible.	1	1.14
04_126	117	Iron	Object	Small lump, rounded edge.	1	0.23
04_127	117	Iron	Slag		25	16.31
04_128	117	Iron	Object	Two flat iron fragments. One is oval shaped and the other triangular. Roves?	2	0.65
04_129	117	Iron	Rove	Two roves, lozenge shaped with broken shank and rectangular. Two probable nail shanks and one propable rove fragment.	5	6.03
04_130	117	VOID		Discarted		
04_131	117	Iron	Nail	Flat round headed and broken shank.	1	4.9
04_132	117	Iron	Slag		1	0.63
04_133	117	Iron	Rove	One lozenge shaped (1,59 g) and one fragmented rove (0,72 g).	2	2.31
04_134	117	Iron	Object	Small irregularly spherical lumps	2	1.1
04_135	117	Iron	Slag		3	4.44
04_136	158	Iron	Slag		1	25.43
04_137	158	Iron	Object	Short, thick and corroded "pin". Rectangular in section.	1	2.33
04_138	159	Clay		Clay ash?	11	12.45
04_139	159	Iron	Slag		17	17.36
04_140	159	Iron	Nail	Very corroded pins. One is propably a nail shank (2,50 g) the other fragment is very thin (0,8 g).	2	3.3
04_141	163	VOID		Discarted		

04_142	178	Stone		Smoothing stone? Irregular rectangular shaped.	1	124.32
04_143	199	VOID		Discarded		
04_144	210	VOID		Discarded		
04_145	229	Iron	Object	Corroded triangular shaped iron plate. Knife fragment?	1	1.23
04_146	231	Iron	Object	Very corroded flat iron fragments. Indet.	3	0.94
04_147	209	Iron	Nail	One corroded nail shank and flat iron fragment.	2	3.26
04_148	209	Stone		Smoothing stone? Irregular rectangular shaped.	1	48.61
04_149	209	Iron	Object	Curved iron plates.	2	7.97
04_150	158	Iron	Object	A) Curved plate (5,97 g). B) Rectangular pin, broken (5,28 g). C) Probable nail shank, square section, broken (8,94 g). D) Three iron fragments, small plate, small lump and thick lozenge shaped object with hole, broken (4,78 g in total).	6	20.18
04_151	158	Iron	Slag	Burnt bone in one of the lumps.	15	18.73
04_152	156	Clay		Spherical shaped.	1	0.38
04_153	71	Iron	Slag		1	34.15
04_154	117	Iron	Rove	A) Square shaped rove (2,56 g). B) Lozenge shaped rove (2,18 g). Found with find 83.	2	4.73
04_155	117	Iron	Rove	Two square shaped roves. Found with find no. 85.	2	4.57
04_156	117	Iron	Rove	Square rove with hole. Found with nails, find no. 80.	1	3
04_157	117	Iron	Indet	Curved iron plate with wood remains. Corroded. Found with rove no. 82.	1	10.9
04_158	117	Iron	Rove	A) Rectangular rove (1,39 g). B) Two flat pieces, probably of rove (1,25 g). Found with nail no. 81.	2	2.64
04_159	117	Iron	Nail	A) Probable nail shank (1,85 g). B) Small fragment, indet (0,10 g). Found with rove no. 79.	2	1.95
04_160	117	Iron	Rove	A) Lozenge shaped (3,22 g). B) Square shaped with hole. Broken in half (0,74 g). Found with nails no. 77 and indet no. 161.	2	3.96
04_161	117	Iron	Indet	Two iron fragments, one probably a nail shank.	2	1.11
04_162	64	Iron	Slag		24	513.41

Environmental samples

Sample No	No	Grid	Sample Type	Sample Method	Process Type	Notes
03_001	16		Bulk	Macro	Wet sieving	
03_002	49		Bulk	Macro	Wet sieving	
04_001	64		Bulk	Macro	Floatation	
04_002	71	13	Bulk	Macro	Floatation	
04_003	117	7	Bulk	Macro	Magnetic	& Floatation
04_004	117	8	Bulk	Macro	Magnetic	& Floatation
04_005	117	9	Bulk	Macro	Magnetic	& Floatation
04_006	117	10	Bulk	Macro	Magnetic	& Floatation
04_007	117	11	Bulk	Macro	Magnetic	& Floatation
04_008	117	12	Bulk	Macro	Magnetic	& Floatation
04_009	117	13	Bulk	Macro	Magnetic	& Floatation
04_010	117	14	Bulk	Macro	Magnetic	& Floatation
04_011	117	15	Bulk	Macro	Magnetic	& Floatation
04_012	117	16	Bulk	Macro	Magnetic	& Floatation
04_013	117	17	Bulk	Macro	Magnetic	& Floatation
04_014	117	18	Bulk	Macro	Magnetic	& Floatation
04_015	117	22	Bulk	Macro	Magnetic	& Floatation
04_016	117	23	Bulk	Macro	Magnetic	& Floatation
04_017	117	24	Bulk	Macro	Magnetic	& Floatation
04_018	117	25	Bulk	Macro	Magnetic	& Floatation
04_019	156		Bulk	Macro	Floatation	
04_020	155		Bulk	Macro	Floatation	
04_021	153	10	Bulk	Macro	Magnetic	& Floatation
04_022	153	14	Bulk	Macro	Magnetic	& Floatation
04_023	153	7	Bulk	Macro	Magnetic	& Floatation
04_024	153	6	Bulk	Macro	Magnetic	& Floatation
04_025	153	4	Bulk	Macro	Magnetic	& Floatation
04_026	153	11	Bulk	Macro	Magnetic	& Floatation
04_027	153	5	Bulk	Macro	Magnetic	& Floatation
04_028	153	13	Bulk	Macro	Magnetic	& Floatation
04_029	153	1	Bulk	Macro	Magnetic	& Floatation
04_030	153	12	Bulk	Macro	Magnetic	& Floatation
04_031	153	8	Bulk	Macro	Magnetic	& Floatation
04_032	153	3	Bulk	Macro	Magnetic	& Floatation
04_033	153	9	Bulk	Macro	Magnetic	& Floatation

04_034	153	2	Bulk	Macro	Magnetic	& Floatation
04_035	117	4	Bulk	Macro	Magnetic	& Floatation
04_036	117	1	Bulk	Macro	Magnetic	& Floatation
04_037	117	20	Bulk	Macro	Magnetic	& Floatation
04_038	117	19	Bulk	Macro	Magnetic	& Floatation
04_039	117	26	Bulk	Macro	Magnetic	& Floatation
04_040	117	29	Bulk	Macro	Magnetic	& Floatation
04_041	117	32	Bulk	Macro	Magnetic	& Floatation
04_042	117	33	Bulk	Macro	Magnetic	& Floatation
04_043	158	1	Bulk	Macro	Floatation	
04_044	117	36	Bulk	Macro	Magnetic	& Floatation
04_045	159	1	Bulk	Macro	Floatation	
04_046	159	2	Bulk	Macro	Floatation	
04_047	117	35	Bulk	Macro	Magnetic	& Floatation
04_048	117	33	Bulk	Macro	Magnetic	& Floatation
04_049	117	30	Bulk	Macro	Magnetic	& Floatation
04_050	117	31	Bulk	Macro	Magnetic	& Floatation
04_051	117	31	Bulk	Macro	Magnetic	& Floatation
04_052	117	5	Bulk	Macro	Magnetic	& Floatation
04_053	117	2	Bulk	Macro	Magnetic	& Floatation
04_054	117	3	Bulk	Macro	Magnetic	& Floatation
04_055	117	6	Bulk	Macro	Magnetic	& Floatation
04_056	117	28	Bulk	Macro	Magnetic	& Floatation
04_057	117	28	Bulk	Macro	Magnetic	& Floatation
04_058	117	3	Bulk	Macro	Magnetic	& Floatation
04_059	117	6	Bulk	Macro	Magnetic	& Floatation
04_060	117	27	Bulk	Macro	Magnetic	& Floatation
04_061	158	2	Bulk	Macro	Magnetic	& Floatation
04_062	158	3	Bulk	Macro	Magnetic	& Floatation
04_063	158	4	Bulk	Macro	Magnetic	& Floatation
04_064	160		Bulk	Macro	Floatation	
04_065	161		Bulk	Macro	Floatation	
04_066	163		Bulk	Macro	Floatation	
04_067	162		Bulk	Macro	Floatation	
04_068	165		Bulk	Macro	Floatation	
04_069	166		Bulk	Macro	Floatation	
04_070	164		Bulk	Macro	Floatation	
04_071	173		Bulk	Macro	Floatation	
04_072	174		Bulk	Macro	Floatation	

04_073	180		Bulk	Macro	Floatation	
04_074	184		Bulk	Macro	Floatation	?182
04_075	176		Bulk	Macro	Floatation	
04_076	178		Bulk	Macro	Floatation	
04_077	184		Bulk	Macro	Floatation	
04_078	207		Bulk	Macro	Floatation	
04_079	175		Bulk	Macro	Floatation	
04_080	212		Bulk	Macro	Floatation	
04_081	186		Bulk	Macro	Floatation	
04_082	188		Bulk	Macro	Floatation	
04_083	217		Bulk	Macro	Floatation	
04_084	210		Bulk	Macro	Floatation	
04_085	229		Bulk	Macro	Floatation	
04_086	190		Bulk	Macro	Floatation	
04_087	231		Bulk	Macro	Magnetic	& Floatation
04_088	196		Bulk	Macro	Floatation	
04_089	192		Bulk	Macro	Floatation	
04_090	198		Bulk	Macro	Floatation	
04_091	213		Bulk	Macro	Floatation	
04_092	194		Bulk	Macro	Floatation	
04_093	214		Bulk	Macro	Floatation	
04_094	218		Bulk	Macro	Floatation	
04_095	219		Bulk	Macro	Floatation	
04_096	216		Bulk	Macro	Floatation	
04_097	200		Bulk	Macro	Floatation	
04_098	209		Bulk	Macro	Floatation	
04_099	223		Bulk	Macro	Floatation	
04_100	211		Bulk	Macro	Floatation	
04_101	221		Bulk	Macro	Floatation	
04_102	226		Bulk	Macro	Floatation	
04_103	225		Bulk	Macro	Floatation	
04_104	22		Bulk	Macro	Floatation	222?

6. REFERENCES

Aldred, O. & Adolf Friðriksson 2003 *Archaeological assessment, Höfðagerði, Núpar 2002*, Framvinduskýrsla/Interim report FS207-02251. Reykjavík: Fonleifastofnun Íslands.

Aldred, O. 2004 *Archaeological assessment, Höfðagerði, Núpar 2003*, Framvinduskýrsla/Interim report FS227-02252. Reykjavík: Fonleifastofnun Íslands.

Batey, C. E. 2003 Excavations at the Earl's Bu, Orphir, Orkney, c. 1859-1939. *New Orkney Antiquarian Journal* 3, 29-71.

Gunnar M. Magnús 1954 *Járnsíða járníðnaðarmenn á Íslandi*. Reykjavík: Prentsmiða Hólar H-F.

Kristjan Eldjarn 1951 Kleberg á Íslandi. In *Arbok hins íslenska fornleifafélags 1949-50*, 41-62.

Lucas, G. 2003 *FSÍ Archaeological Field Manual 3rd ed* FSÍ

Ottaway, P. 1992 *Anglo-Scandinavian Ironwork from 16-22 Coppergate*. York Archaeological Trust/Council for British Archaeology.

Spencer, B. 1994 *Archaeological Site Manual, Museum of London 3rd ed* MOLAS.

Stenberger, R., Stenberger, M., Roussell, A. & Nordiska Arkeologiska Undersökningen I Island 1943 *Forntida Gårdar I Island: Meddelanden Från Den Nordiska Arkeologiska Undersökningen I Island Sommaren 1939*. København: Ejnar Munksgaard.

Pór Magnusson 1984 Rannsókn Fornrústar Við Auðnugil í Hrunamannahreppi. *Árbók Hins íslenska fornleifafélags* 81, 183-190.