Gásir Hinterlands Project 2009
Midden Prospection and Excavation

Ramona Harrison (Editor)

With contributions by
Guðrún Alda Gísladóttir, Sólveig Guðmundsdóttir Beck,
Sigrid Juel Hansen, Elín Ósk Hreiðarsdóttir,
Gavin Lucas and Howell Magnus Roberts

FSÍ, Reykjavík and CUNY NORSEC, New York
FS440-06384
February 2010

INDEX

Summary

This report presents the results of a very successful second Gásir Hinterlands Project (GHP) field season in 2009.

There are several **finds specialists' reports** attached to the field report:

Elín Ósk Hreiðarsdóttir presents a detailed account of the beads found; Guðrún Alda Gísladóttir (who also organized the artefact processing), together with Sigrid Juel Hansen and Sólveig Guðmundsdóttir Beck report on and summarize the total finds assemblage (with special details on the whetstones recovered from Myrkárdalur and Skuggi by Sigrid Juel Hansen); Gavin Lucas analyzed the ceramic and glass finds from Möðruvellir (not excavated in 2009, but between 2006 and 2008), Myrkárdalur, and Bakki.

These reports are likely to be altered upon new information and analysis and thus provide an initial account of the finds from the Gásir Hinterlands Project Sites.

During five weeks in summer of 2009 (June 9 – July 10), an international team cooperated in carrying out a program of survey, coring, and small scale test excavation on selected sites in the Eyjafjord region in Northern Iceland. This was the second season of the Gásir Hinterlands Project, concluding the NSF IPY Dissertation Improvement Grant part of a planned multi-season collaborative investigation of the hinterlands surrounding the medieval seasonal trading center at Gásir (Roberts 2004; Roberts et al, 2002-2006; Harrison 2009, Harrison *et al* 2008; Harrison, 2006-2008a, Harrison 2008b). Prior work at Gásir indicated that this medieval (ca. 1250 – 1350 AD) trading center was provisioned from a wide economic catchment area and that investigations needed to be extended to include the surrounding landscape.

GHP is aimed at improving our understanding of the interactions of local farming strategies affected by changing climate and ongoing human impact with medieval overseas trade and long distance exchange centered on Gásir. GHP also focuses on the long term human ecodynamics in this historically important part of Iceland, contributing to the reconstruction of a detailed

historical ecology of Eyjafjörður from first settlement down to modern times. The 2009 project consisted of coring and potential selective test trenching of 7 sites in Hörgárdalur and Öxnadalur, two of the valleys systems that are part of the Gásir landscape, building upon a comprehensive site survey database (ÍSLEIF) already established by FSÍ. Three of these 7 potential midden sites had been located in 2008 and were revisited in 2009: Skuggi and Myrkárdalur in Hörgárdalur, and Bakki in neighboring Öxnadalur. The excavation of the household midden at the mid-highland site at Skuggi in Hörgárdalur proved very successful. The result was a collection of a well preserved and plentiful archaeofauna and several artefacts, the recording of at least two *in situ* tephra deposits, sampling for various environmental specialist analyses, and discovery of a turf structure whose *in situ* walls contained layers of the Landnám Tephra (ca. 872 AD). Several beads found at Skuggi and also Oddstaðir are worth mention as some of them are quite unique and can give an initial idea of the time frame and maybe even and notion of the inhabitants' cultural affiliations.

Figure 1 - SKÖ2009-062

Figure 2 - ODÖ2009-026

The glass bead from Skuggi in figure 1 was covered with foil of gold or silver and was possibly produced in the eastern Mediterranean during the Viking Age. Figure 2 depicts a glass bead retrieved from the Oddstaðir midden that is currently the only such find in Iceland and can be dated to the turn of the 10th

century. E.Ó. Hreiðarsdóttir has analyzed all the beads found during excavation in detail and presents the results in her report following the field report.

Sites cored for the first time in 2009 were all located in Hörgárdalur in an effort to concentrate resources and findings to one research area: all 6 sites cored for well-preserved midden features in 2009 were within a 25 km radius. The low- mid elevation site at Oddstaðir on Öxnhóll land and the revisited highland site at Myrkárdalur provided relevant household middens suitable for test trenching. Coring exercises at Uppsalir and Beinirsgerði did not provide clear household midden indicators.

Skuggi and Oddstaðir are situated not far from each other, the first one located on the south side and the latter on the north side of the Hörgá (see figures 4 & 5 below).

All three site middens tested in 2009 provide unique new archaeological collections to a continuously growing body of data collected from the Eyjafjörður region. Skuggi is likely another Viking Age site directly comparable to Granastaðir (Einarsson 1995) and Klaufanes (Eldjárn 1943, Hreiðarsdóttir 2004).

Figure 3 - Skuggi structure, eastern wall containing purple and olive green tephra layers from volcanic ash deposits remains intact. Wall in this close-up is 1.50 m long. Depth of the wall is not known because the structure is still filled with collapse from the roof. The pierced bone and rounded rock visible in front of the inside portion of the wall are associated with the layer of structural collapse and have been mapped onto the end of season drawing. Picture faces east.

The Oddstaðir site probably contains occupation layers spanning a timeframe from the Viking Age through the early post-medieval period and thus provides archaeological and environmental data contemporaneous with at times Skuggi, Gásir, and potentially even Myrkárdalur, and Möðruvellir. The Myrkárdalur

midden excavation revealed artefacts from the early post-medieval period and is thus comparable to midden contents from the Möðruvellir site excavated by Roberts and Harrison between 2006-2008 (Harrison & Roberts 2006, 2007).The high status Möðruvellir site midden deposits accumulated over several centuries provide comparative data for several of the recently collected faunal remains, artefacts, and environmental samples.

Participants

Project director 2009: Ramona Harrison (CUNY)

Project collaborators: Howell M. Roberts (FSÍ), Ramona Harrison (CUNY)

Outreach connection and local liaison: Þóra Pétursdóttir (FSÍ).

Senior advisors: Dr. T. H. McGovern (CUNY), Dr. Orri Vésteinsson (FSÍ)

Survey advisor: Elín Ósk Hreiðarsdóttir (FSÍ)

Excavation crew: Seth Brewington, Véronique Forbes (U Laval), Sigrún Inga Garðarsdóttir (FSÍ), Ramona Harrison (CUNY), Aaron Kendall (CUNY), Norie Manigault (CUNY), Jasmine Patel (CUNY REU), Þóra Pétursdóttir (FSÍ), Howell M. Roberts (FSÍ).

Specialists´ participation:

Micromorphology: Dr. Ian Simpson and team (U Stirling)

Paleobotany: Dr. Mike Church (U Durham)

Geoarchaeology: Dr. Andy Dugmore and Richard Streeter (all U Edinburgh)

Archaeoentomology: for U Laval: Véronique Forbes

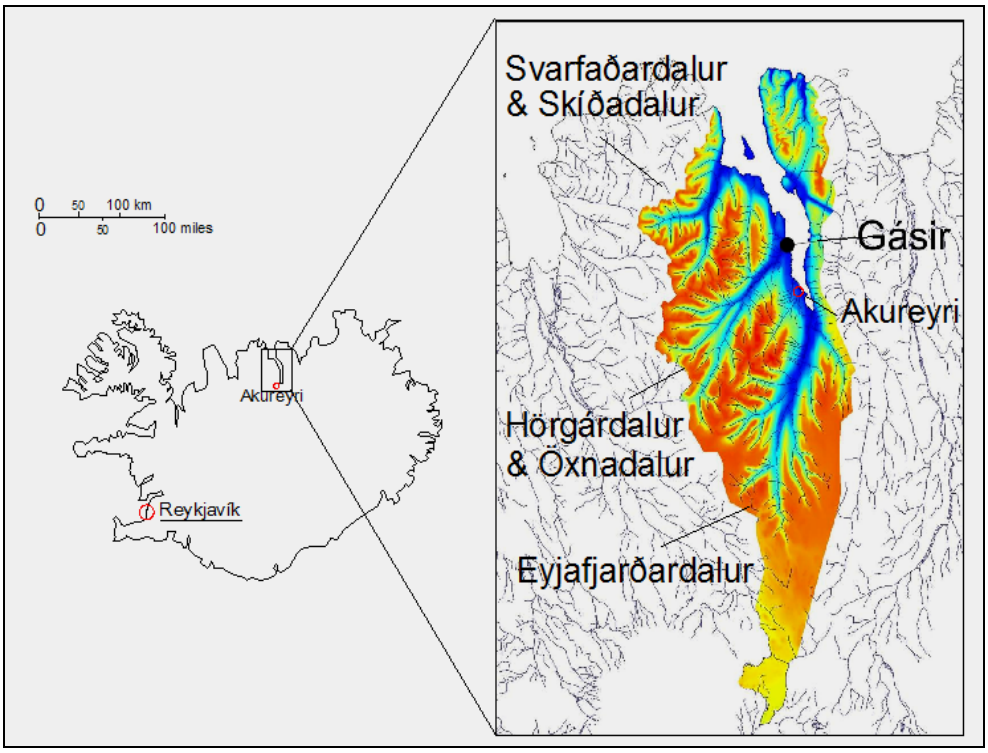


Figure 4 – Map of Iceland, highlighting the Eyjafjörður region and areas discussed.

Introduction

The Gásir Hinterlands Project (GHP) presents the collaboration between the Archaeological Institute Iceland (FSI) and the Northern Science and Education Center of City University of New York (CUNY). Howell M. Roberts from FSI developed the idea for this investigation into the region, covering cultural and environmental data from time periods before, after, and contemporaneous with the height of trading activities at the Gásir market site during the 13th and 14th centuries AD. Further, sites of different social strata (low status vs. high status) and diverse topographic areas of the Eyjafjörður area were of interest to the research of the region's history of settlement and human-environment interactions (Harrison & Roberts 2007).

The author is responsible for the analysis of faunal remains of these investigations and will integrate them with already analyzed animal collection from the Gásir and Möðruvellir sites excavated in previous years (Roberts 2009, Harrison & Roberts 2007, Harrison 2009, 2007).

Specialist help in micromorphological and geoarchaeological sampling and analysis by teams from the University of Stirling, the University of Edinburgh, and specialist advice on sampling for archaeobotanical analysis from the University of Durham has been generously provided and will result in a set of environmental data not previously available for this region. The archaeoentomology sampling was undertaken by Véronique Forbes for the University at Laval. GHP took place in Eyjafjörður, in the NE part of Iceland and lasted five weeks (June 8 – July 10).

The **goals** for this year's Gásir Hinterlands project were twofold: 1. to continue excavation work at Skuggi and Myrkárdalur in Hörgárdalur where household middens associated with archaeological sites had been found in 2008; 2. to locate and test other known and surveyed sites in Hörgárdalur and Öxnadalur. These two valleys are located immediately to the SW of Möðruvellir and Gásir. Although a large scale, multi season survey project has resulted in a database containing over 5000 located and surveyed sites across the Eyjafjörður region
(Hreiðarsdóttir 2008; Hreiðarsdóttir 2001; Hreiðarsdóttir & Vésteinsson 1999; Vésteinsson & S.G. 1998), few detailed excavations have taken place in this region: i.e. at the Viking Age sites Granastaðir in Eyjafjarðardalur (Einarsson 1995), and at Klaufanes in Svarfaðardalur (Eldjárn 1943, Hreiðarsdóttir 2004).
B. Einarsson´s excavation of Granastaðir has produced an archaeofauna that comprises the only one from Eyjafjörður not resulting from excavations at either Gásir or Gásir Hinterlands sites (Amorosi & McGovern 1994). This site is located ca. 50 km south of Akureyri '*at the bottom of the valley*' (Einarsson 1995:69).

As in 2008, the objective for 2009 was to carry out second–phase investigations involving systematic coring (using a tube-type Oakfield soil corer) to locate probable midden deposits and investigate them through small scale trenches to test conditions of preservation and document possible tephra. This field report provides a preliminary overview as a result of this regional second-phase survey investigation. A few errors in the 2008 interim report are

addressed as footnotes. Figure 5 indicates the Gásir hinterland sites whose associated middens were excavated in 2008 and 2009 and are located in Hörgárdalur. Myrkárdalur is a highland site, the Skuggi ruin and midden are situated at mid-high altitude, and the Oddstaðir farm site and midden mound fit lower-mid elevation above sea level. The lowland sites Gásir and Möðruvellir are listed as well: they both have produced archaeological collections of cultural and environmental samples.

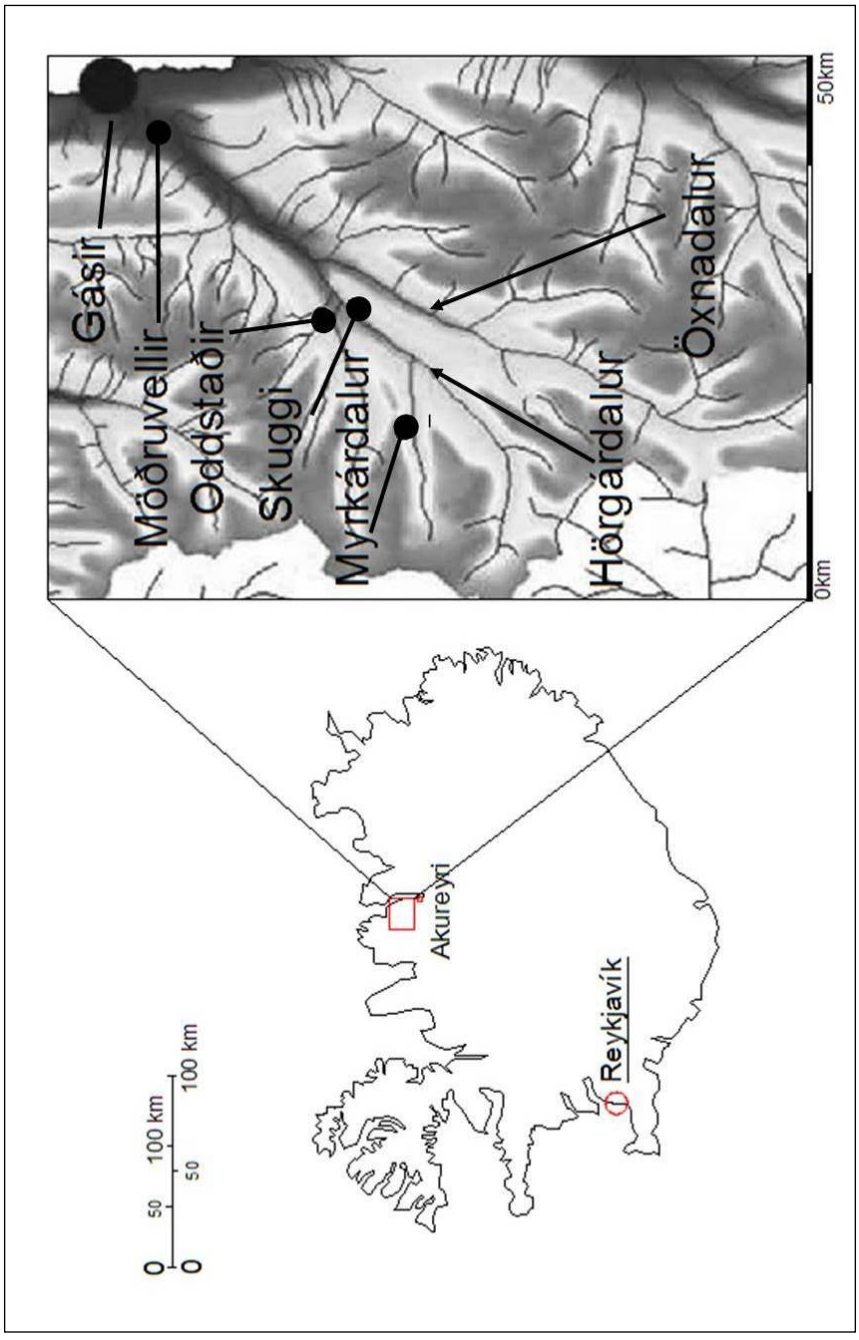


Figure 5 – Myrkárdalur, Skuggi, and Oddstaðir sites, low-highland locations in Hörgárdalur, excavated in 2008 and 2009. Möðruvellir and Gásir are coastal sites and cultural deposits from these two sites were excavated in previous years.

Excavated Middens

Skuggi, SKÖ (EY-215:009)[1]

Coordinates: 65°39.743'N, 18°28.782'W, 170 m elevation ASL[2]

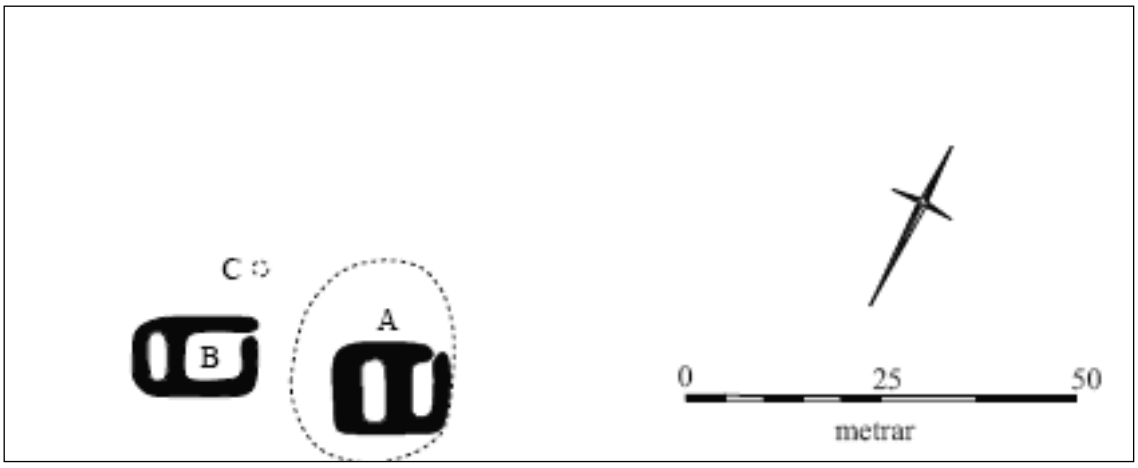


Figure 6 - Skuggi survey plan. C indicates the midden mound, coring and testing confirmed the location (Hreiðarsd. 2008: 232).

This archaeological site is located south of a bridge called Skuggabrú which crosses the Hörgá. The last part of the way which is uphill cannot be accessed by a vehicle. It is a rather steep ascent but a horse trodden way (the pasture also is in use for horse grazing) facilitates the ca. 10 min hike. Klausturhús, the animal shelter associated with the Möðruvellir monastery examined in 2008 (Harrison 2008b for more information on Klausturhús) lies about half a kilometer to the NW and downhill from this site. Little is known about the Skuggi site itself, except for its name and the possibility that it may have started out as independent farmstead before 1400 AD and may have been abandoned for many centuries by then (Hreiðarsdóttir 2008). The Skuggi farm ruin is located on what is now Staðartunga land and was likely connected to that property in one way or another from early site settlement on. The Staðardtunga farm itself seems to have belonged to the Möðruvellir monastery at least during the 14th

[1] The various sites are labeled: Site name, project code – (survey code). Coordinates, Elevation (according to GPS readings taken by RH in 08/09)

[2] NB: In Harrison 2008 the elevation asl was incorrectly put as 360m asl (Harrison 2008b: p 21). The Skuggi GPS measurements from 08 and 09 are indicating an elevation asl of 166-169m.

and 15th centuries AD and likely until more recently. The name Staðar-tunga may refer to the "staðir", or Möðruvellir, itself (personal communication, Þóra Pétursdóttir, FSí, January 2010). It is known that the farm paid its tithes and possibly tenure to the monastery, and that there was a forest growing on Staðartunga land (sources mentioned in Hreiðarsdóttir 2008:230). While it is known that there once existed a Skuggagata, or Skuggi-road on this land, the site Skuggi is not mentioned in the written sources. The Skuggi road way may have been running higher up along the valley side and trees growing towards the valley bottom. The Skuggi farm midden was found at the exact location indicated by the survey map below.

In 2008, a small test trench, 1 m by 2 m, was put in between the 12 and 14 m mark on the line running north of the north eastern corner of ruin B (*SKU01N 65º39.752' N,18º28.813'W).*[3]

Several distinct midden dumping events could be detected and excavated. Terramating was placed on the bottom of the trench to facilitate unearthing of the refilled spoil in 2009.

Figure 7 – Skuggi ruin B, ESE direction, midden at the left, or N from ruin B.

[3] In the 2008 report, these coordinates were associated with ruin C and its north western corner.

On June 9 2009, the team went to Skuggi, transported the necessary gear to the site, re-opened the trench from 2008, and opened an area 4 m long and 2 m wide. Once the entire trench was level with the one from the previous year, removal of discrete midden deposits continued until very distinct and multicolored turf blocks encountered. It soon became clear that these turf blocks were not only structural collapse, but in fact belonged to *in situ* walls from a building filled in with the newly excavated midden deposits. The turf blocks used for wall construction contained olive and green tephra layers and thus were most likely cut into landnám layers.

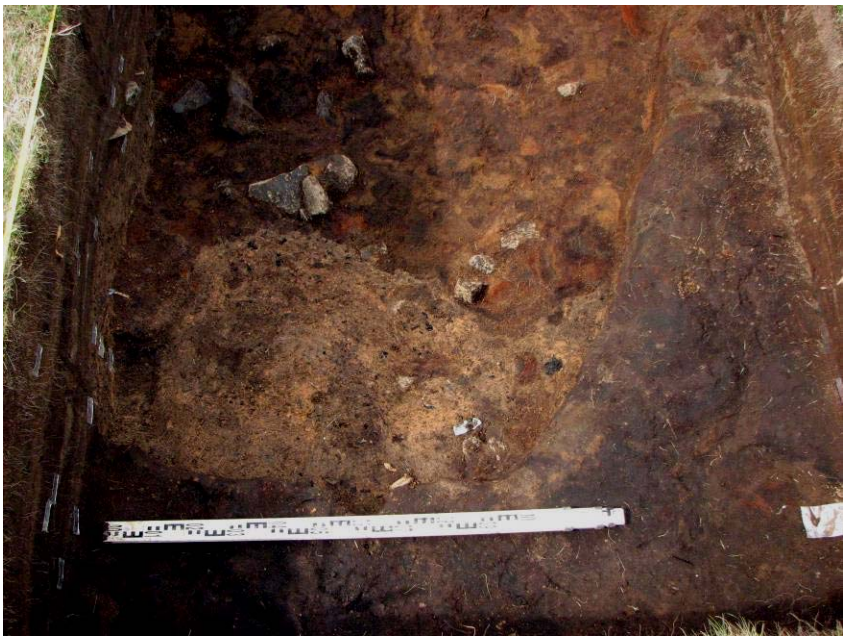


Figure 8 – Skuggi structure, turf wall at southern and southeastern margin of TR1. The yellow brown layer is likely the collapsed roof, the pink layer between wall and roof collapse represents a peat ash midden layer. Picture facing north.

Detailed analysis of the tephras encountered at Skuggi is still in process but the archaeology currently indicates that the structure may have been abandoned before the 1300 AD tephra ash fall and could have been built soon after the 872 AD Landnám sequence of ash falls. A third, very faint white tephra layer that could be an 11th century AD event and that also seems to seal almost all of the anthropogenic accumulations (with exception of context [003]) was observed in the south western corner of the extended trench. If the tephrochronological analysis confirms the above observations, then the Skuggi structure and midden deposits date from the Viking Age and to the early 12th century and provide thus an early archaeological contribution to the

Hörgárdalur settlement history (i.e. 900 – 1100 AD). Figure 9 demonstrates the color and texture differences of the archaeological remains encountered at Skuggi. The left side of the picture shows multicolored striations typical for a wall that was built with turf blocks cut into the landnám tephra layers that are characteristically green and purple.

The picture's right side displays the mixed deposits of peat ash, soil, and woodash, abutting the wall and thus clearly infilling it.

Figure 9 - Skuggi trench, SW corner: the circle highlights the contrast between multicolored turf wall and pink/orange/brown midden deposits.

Once the entire midden materials were removed from the initial 2009 trench, another meter was added along its western side, extending the total excavation area to 4 m (N - S) by 3 m (E - W). By extending the trench another meter, the team revealed approximately one half of the turf collapse layers associated with the structure and realized that another area equal in size to TR1 contains household midden materials. Time restrictions did not allow for an entire removal of the infill, but the plan is to return to Skuggi in the future and open up a much larger area, and potentially even unearth the entire structure, once its entire extent is better understood.

Figure 10 – Skuggi midden extension towards the west. The red arrow points toward the archaeontomology sampling column.

The Skuggi site was excavated in 53 different contexts whose compositions alternated in varying combinations of soil, woodash, and peat ash contents and yielded 85 bone bags that weighed a

total of ca. 40 kg (88 lbs) and were very well preserved: the soil ph level was measured at a consistent value of 6.5 + and the bone elements collected include mammals, birds, and fish. Most interesting among the faunal collections was the recovery of a sheep frontal bone with its horn cores attached, found in context (051).

Figure 11 - Sheep horns still attached to frontal bones (suture lines of the bone plates still visible).

The Skuggi 09 excavation recovered 68 artefacts, of which a few beads (see bead report by Hreiðarsdóttir 2009 below) were of great interest and may indicate an early medieval or even Viking Age occupation and subsequent midden accumulation. Two bone pins (finds no. 56 and 74 from contexts [035] and [036]), various stone artefacts, and a fair amount of iron objects were retrieved as well and are undergoing specialist analysis.

Figure 12 - Comparison: On the left, the Skuggi trench at the beginning of the season, and to the right, at the end and at its final extent, with the remains of turf structure exposed after removal of midden infill.

School site visits and Educational Outreach

Early on in the GHP excavation season, the Skuggi site was visited by a group of local summer school students with their group leader Vigdís Arna Magnúsdóttir. The site visit and ensuing interviews with Þóra Pétursdóttir and Ramona Harrison were part of the educational goal for this summer program:

Figure 13 - the local school children help Þóra Pétursdóttir (FSÍ) with the sieving.

"Journey to exotic places" is a loose interpretation of the Icelandic program name: *Ferðalag um framandi heima*. The ca. 25 children from the ages of 6 – 12 were introduced to archaeology and especially midden excavation by Þóra Pétursdóttir who told them why Skuggi and in fact the Hörgá Valley are so important for our understanding of the Gásir market place and its role within the larger society. The children listened attentively and became very excited when they were allowed to sieve some of the midden contents.

The other, more frequent visitor to the Skuggi excavation site was the landowner of Staðartunga and thus Skuggi, Jón Pétur Ólafsson who contributed anecdotal information and told us that the ditches around the site were dug only about 20 years ago and that there used to be a road much south and thus uphill from the modern road running along the river. This old road could have been the mentioned Skuggagata, but the landowner was not sure. He was very interested in the emerging structural remains and also the fact that sandstone fragments and artefacts were found in the midden layers. He mentioned the use of local sandstone in the church at Hólar, located on the other side of the mountainous peninsula called Tröllaskagi that divides Skagafjörður in the west and Eyjafjörður in the east. There used to be a

mountain road/way from Hörgárdalur to Hólar (Kristjönudóttir 2005) that could have led travelers on their way there by Skuggi as well.

Another visitor to Skuggi and to Oddstaðir was Dr. Ingrid Mainland from Bradford University who led a meeting at the historic Möðruvellir conference building (leikhús) together with Bjarni Guðleifsson from the experimental research station of the Agricultural University Iceland that is located on Möðruvellir premises. Þóra Pétursdóttir and Ramona Harrison joined them during that meeting that dealt with a research proposal by Mainland on the study of sheep grazing signatures (i.e. Mainland, 2001, 2005).

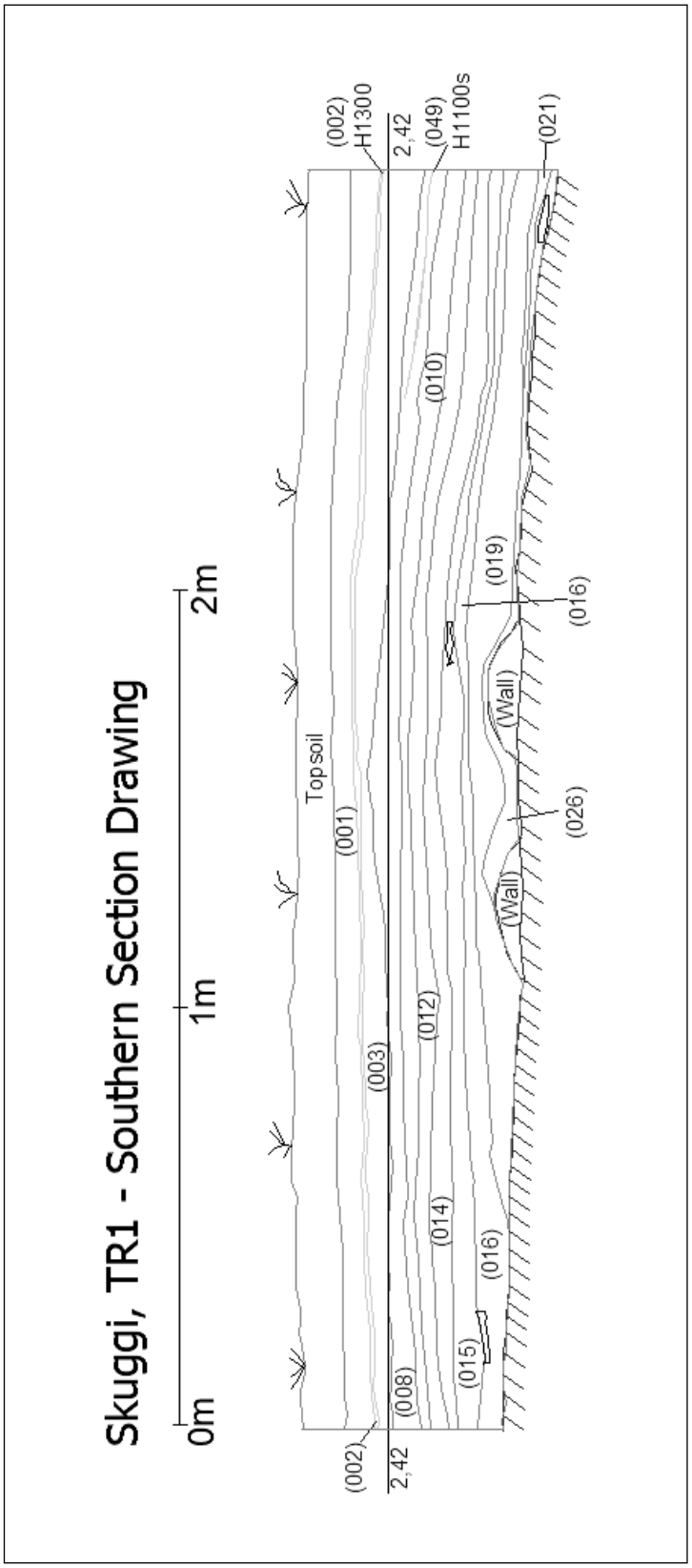


Figure 14 - Skuggi, TR1 – Southern Section Drawing (Level measurement in m).

Myrkárdalur, MYÖ – (EY205_006)

Coordinates: 65º37.845'N, 18º34.906'W, Elevation 280 m ASL[4]

The Myrkárdalur farm is situated in a highland area at the end of a valley named after the river Myrká. The early farm ruin is clearly visible despite the overgrowth of grass: several rooms are connected through a central corridor, reminiscent of medieval houses from Greenland. A landslide in the 14th century destroyed part of the farm and the occupants were forced to move further west, where several more recent ruins are located (sources cited in Hreiðarsd. 2008:178). Myrkárdalur was abandoned in 1955 and the land has since been used by the nearest farm, Myrkárbakki. Several ruins encountered as either standing structures or overgrown ruins on the Myrkárdalur home field provide an instant if superficial overview of its settlement history from the middle ages through the 1950s.

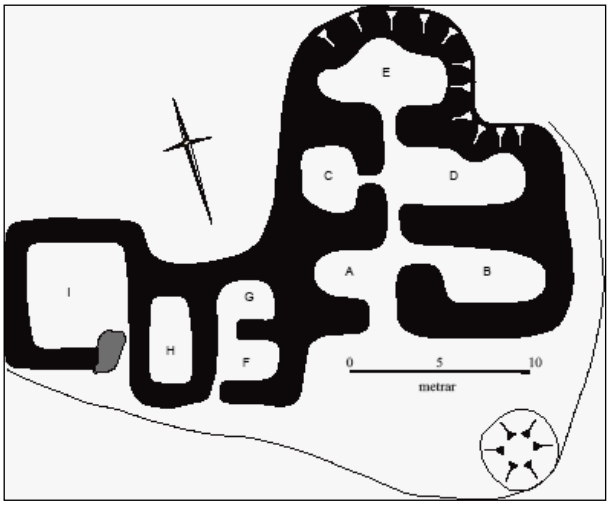


Figure 16 – Myrkárdalur ruin, survey plan (Hreiðarsdóttir 2008, p 178).

In 2008, the more westerly hillock of the two possible midden locations was test trenched and revealed itself as mainly an accumulation of structural debris (see Harrison 2008b for a more detailed report on the Myrkárdalur 2008 coring and test trenching activities).

The team cored the small mound to the east of the one trenched in the previous year and found again that the coring profiles did not indicate sufficient evidence of materials associated with household middens. Moreover, at ca 40-50 c below

[4] NB: In Harrison 2008 the elevation was put as 218 m asl. (Harrison 2008b: p 21). The Myrkárdalur GPS measurements from 2009 are indicating an elevation asl. of 280 m.

surface, every coring hole had to be abandoned because it hit what is likely bedrock. Upon a thorough coring of the perimeter, a very promising looking area to the south of the structure and the two hillocks was detected. Figure 17 shows the hillock cored in 2009 in relationship to the medieval structural remains and the small midden trenched in 2008.

Figure 17 - Coring at the hillock south of TR1 (indicated by red circle). Picture faces NE.

A N-S transsect was laid, and the zero point on the new N-S line is located 40 m south (downhill) of the eastern mound and 10 m west of the sheep gate, the eastern mound´s most southern extent was located 25 - 30 m north of the southern mound. Several cores were taken along that line and an approximate extent of midden materials assessed. The core profiles from the southern mound demonstrated the presence of peat ash, woodash, and bone (usually burnt) from about 30 cm through 100 - 130 cm below surface. With a soil ph value at around 6,2, a decent bone preservation could be expected and the team decided to put a small test trench into the mound. The Myrkárdalur Trench 2 (TR2) measured 1 m in width (west to east) and 4 m in length (south to north). The datum point from where the height of instrument was measured (actual elevation asl still to be established) was given a GPS reading: *MYÖ DP N65º37,822´, W 018º34,878'.*

Figure 18 - The Myrkárdalur team at the beginning of excavation. Picture faces SSW, with view of Hraundrangur's peaks.

Among the artefacts recovered, a Raeren stoneware jug handle (context 203) places the midden contents into the late 16th or early 17th centuries AD. (Lucas, 2010).

Figure 19 - MYÖ09 TR 2, context 203, finds no 16, Raeren Stoneware jug handle, dated to late 16/17th century (Lucas 2010).

Myrkárdalur midden TR2 produced number of animal bones and artefacts datable to the Icelandic post-medieval period, roughly placing the contents into the late 16th to early 17th centuries. This archaeological collection provides valuable new information on the period only previously encountered in this area at the Möðruvellir midden in coastal lowland Eyjafjörður. A direct comparison of outlying highland farm Myrkárdalur and the centrally located lowland wealthy estate Möðruvellir with ties to the church almost throughout its entire occupation history is of extreme importance not only to this research project concentration on a regional entity, but contributes to the entire Icelandic body of cultural history.

Figure 20 - Myrkárdalur trench, TR2. Arrow points to the ruin presentedF in Figure 16 above, with the green hillock where TR1 was located. Facing NNE.

A total of 21 contexts from Myrkárdalur TR2 were excavated and a series of cores were placed into the trench at the end of excavation to better understand the midden's underlying geology. The coring resulted in no good evidence for a datable tephra layer,

and the bottom of the trench started filling in with water. The position of the midden mound on the downhill end of a steep slope may have enabled good drainage of water and leaching of organic materials. The site's fuel economy was visible in a series of excavated midden layers from the post-medieval era: Several contexts consisted almost entirely of either peat ash or woodash, or a mixture of both.

Figure 21 - TR 2 at Myrkárdalur, southern section.

Excavation activities at this site were ended on June 22. 2009 to allow for testing of a third midden deposit discovered during the week-long Myrkárdalur excavation: Oddstaðir. The Myrkárdalur midden excavation 2009 yielded 17 bags of archaeofauna and 27 artefacts, including one ceramic pipe stem (finds no. 10, context [221]), one pottery fragment (finds no.16, context [203]), some quartz fragments, several iron objects, and a few glass shards that await specialist analysis.

Figure 22 - MYÖ 09 TR2 re-filled. Camera facing north. This picture highlights the unevenness of the terrain.

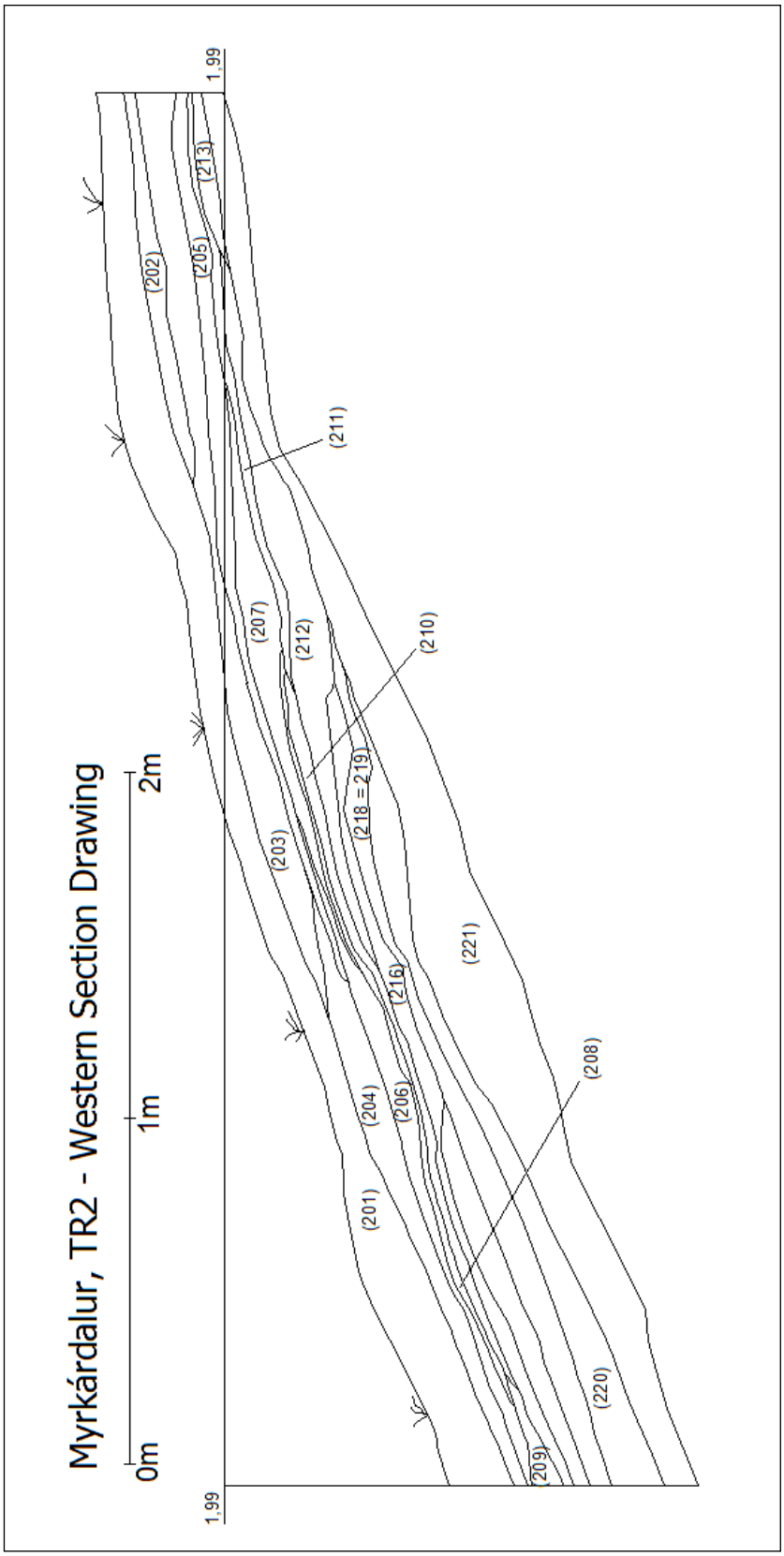


Figure 23 - Myrkárdalur, TR2 – Western Section Drawing (Level measurement in m).

Oddstaðir ODÖ (EY-196:010)

Coordinates: 65°40.617'N, 18°29.107'W, Elevation 158 m ASL.

The site of Oddstaðir farm ruins nowadays belong to the land owned by Öxnhóll, once a church farm. Öxnhóll also owns the land where the ruins of the Uppsalir farm are located and where a midden coring exercise took place in 2009 (discussion follows).

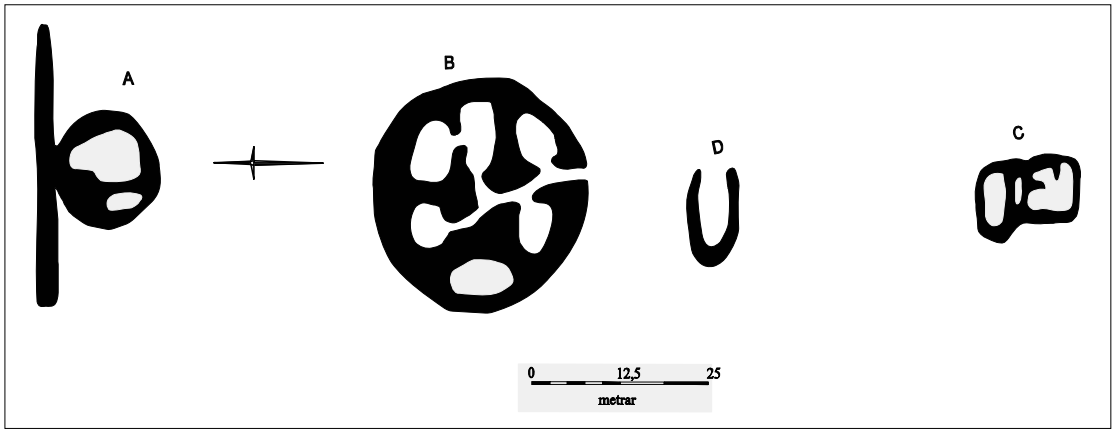


Figure 24 – Survey plan of the Oddstaðir ruins, TR1, the trench excavated in 2009 is located on the eastern slope of ruin B (plan by Hreiðarsdóttir 08:97; arrow direction adjusted by RH). Midden location indicated in figure 25.

As figure 24 indicates, there are several ruins at Oddstaðir, located on Öxnhóll land north of the Hörgá and west of Oddstaðsá. The latter river marks the boundary between Öxnhóll and Barká, the neighboring farm to the west. The modern farm house at Barká is situated on circa the same latitude (N - S line) as the ruin of outhouse building C, about 50 m south of the farm mound. The mound is about 3 m high and represents an accumulation of structural remains.

The Oddstaðir survey report lists sources that indicate farm abandonment some time in the mid-18th century AD. There used to be a forested area south of the home field and according to one source, turf cutting took place in the area at some time. In 1762 (Ólafur Olavius in Hreiðarsdóttir 2008 Vol.1:97), Öxnhóll land was hit by a landslide and this may be one reason for the ultimate Oddstaðir site abandonment (for sources see Hreiðarsd. 2008, Vol.1:94-95). In 1712, the Icelandic land register Jarðabók mentions that the ruins had been

abandoned longer than men could remember (Jarðabók Árna Magnússonar og Páls Vídalíns 1943 edition, Vol.10:141).

Figure 25 - Oddstaðir midden coring exercise; left: yellow flags mark the location of the cores containing the most promising midden materials. Picture faces north. Right: The farm ruin with Barká farm economy building to the SW and the Hörgá to the south. The mound with the grass overgrowth contains ruin B. Red arrow indicates midden location on the eastern slope of ruin B; Picture faces SSW.

On June 18 2009, part of the GHP team went to the Oddstaðir site and placed cores into the area surrounding farm mound B, and soon was able to find multiple discrete midden dumping episodes in the core profiles. A series of flags were use to help indicate the most promising coring locations (see figure 25). In general, anthropogenic deposits appeared in the core profiles right under the topsoil, beginning at a depth of 23 - 25 cm below surface; various layers of turf collapse, peat ash and wood ash, and soil mixed with obvious anthropogenic materials alternated all the way down to about 100-115 cm below the surface. The household midden likely covered an area of at least 8 - 12m^2.

Initially, an area measuring 1 m (N-S) by 3 m (E-W) was opened up; the datum point marked as 'ODODP', GPS coordinates: *N65 º40.616', W018 º27.087'.* Within two days of excavation, the Oddstaðir TR1 had produced several substantial and discrete midden contexts that contained nicely preserved faunal remains (i.e. context [104]). The team decided to extend the trench to 2 m (N-S) by 3 m (E-W) to maximize the recovery of artefacts and faunal and also other environmental samples. Following a second coring

transsect to pinpoint the midden extent even further, the trench was extended by another meter along the eastern section on bringing it to its final extent of 2 m by 4 m.

This trench not only contained a large and well preserved archaeofauna and several artefacts, but the removal of midden deposits and fills furthermore revealed several structural remains: For example, the corner of a rectangular pit (122) was filled with and sealed by household midden materials, that were in turn sealed by the H1300 AD tephra (context 114) in the trench´s SE corner (figure 26) prior to the 1 m eastern extension.

Figure 26- negative feature with a very regular edge that forms one corner of the feature. The yellow, brown, and black coloured deposits on the bottom of the feature/pit are prehistoric deposits. Picture faces east.

Figure 27 - Oddstaðir, multi-context picture: stone lined wall, post holes with a rectangular feature emerging. Picture faces west.

Another structural feature encountered was a stone-lined turf wall transsecting the trench from the north to the south of the trench at its center (figure 27). To the east of this wall feature, postholes and a rectangular feature are visible.

As practiced at the Skuggi site, all midden layers from the Oddstaðir trench were removed and structural remains left intact. Future excavation projects will investigate an extended midden area combined with the farm mound remains and thus aim to learn more about the people living in the farm house and creating the midden deposits by repeatedly dumping their household refuse in the same place. The 2009 midden remains alone will help better understand the organization of this farmsite located in the Gásir Hinterlands. At Oddstaðir, several midden layers were deposited on top of the H1300 AD tephra and their contents may provide good intra-site comparatives on issues such of site-subsistence strategy or fuel economy. These deposits may also potentially provide faunal and other environmental data comparative to the Gásir record. A second tephra, H1104 AD, was also encountered at the Oddstaðir trench, sealing a number of deposits and thus containing cultural layers that are potentially contemporaneous with Skuggi contexts. Once the various pieces of temporal evidence (i.e. C14 method and tephra analysis, but also artifact analysis) have been analyzed, phasing of the different occupational layers will enable a more precise chronology of midden formation processes.

Figure 28 - Dr. Ingrid Mainland from Bradford University visited the two Hörgárdalur sites Skuggi and Oddstaðir (picture) in July. Picture faces ESE.

The Oddstaðir trench (TR1) yielded 66 contexts, most containing faunal remains: 73 bone bags, weighing ca. 40 kg (88 lbs), containing many well preserved archaeofaunal remains from layers early than, contemporaneous with, and likely later than the time period that covers the height of Gásir´s trading activities. From a total 47 artefacts, three beads were of great interest. They are discussed in detail in Elín Ó. Hreiðardóttir´s report later in this report (Hreiðarsdóttir 2009). Several pieces of white quartz and many iron artefacts were recoverd also and are undergoing specialist analysis.

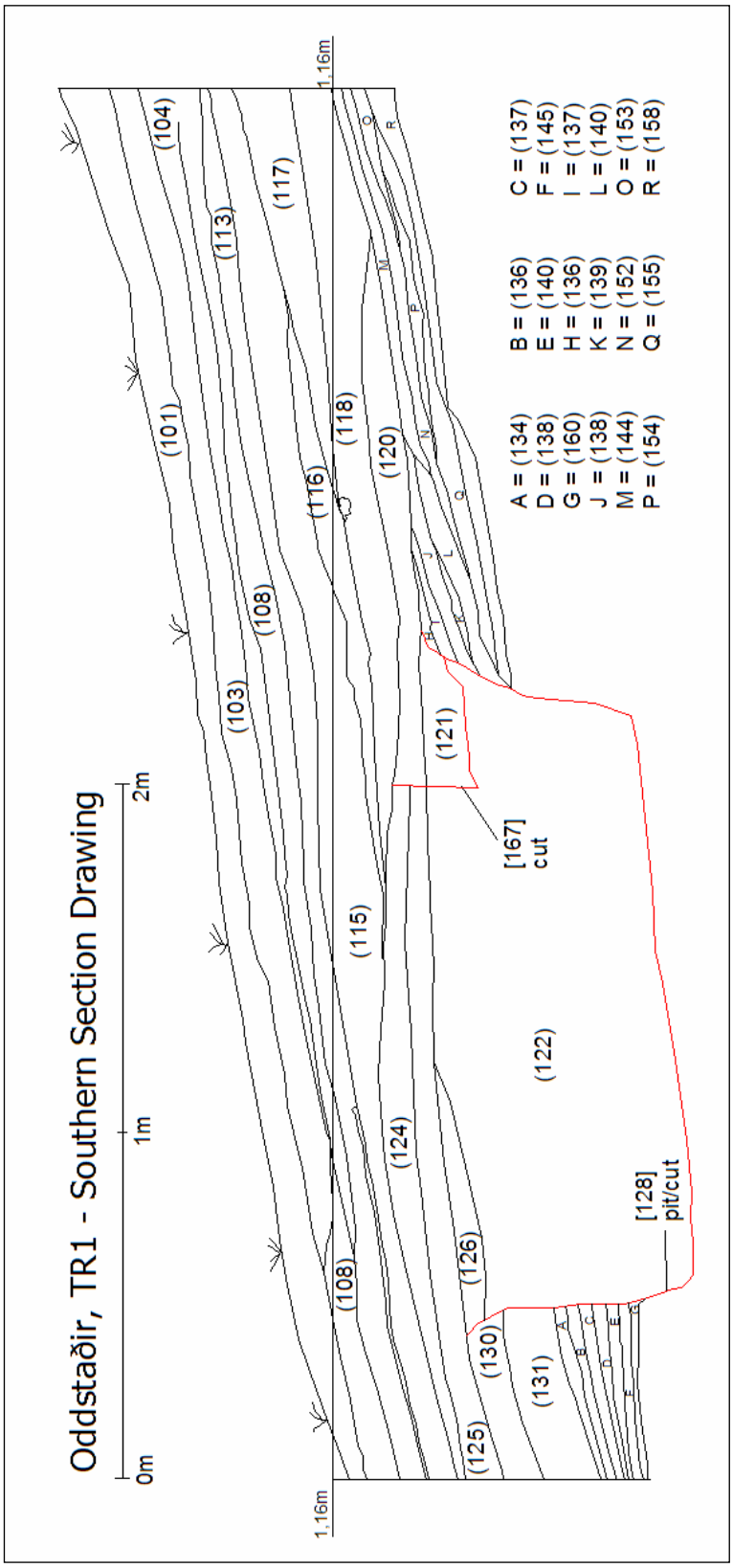


Figure 29 - Oddstaðir, TR1 – Southern Section Drawing

Cored sites

Bakki, BKÖ (EY-219:013)

Coordinates: 65°36.894´N, 18°30.378'W, 176m ASL

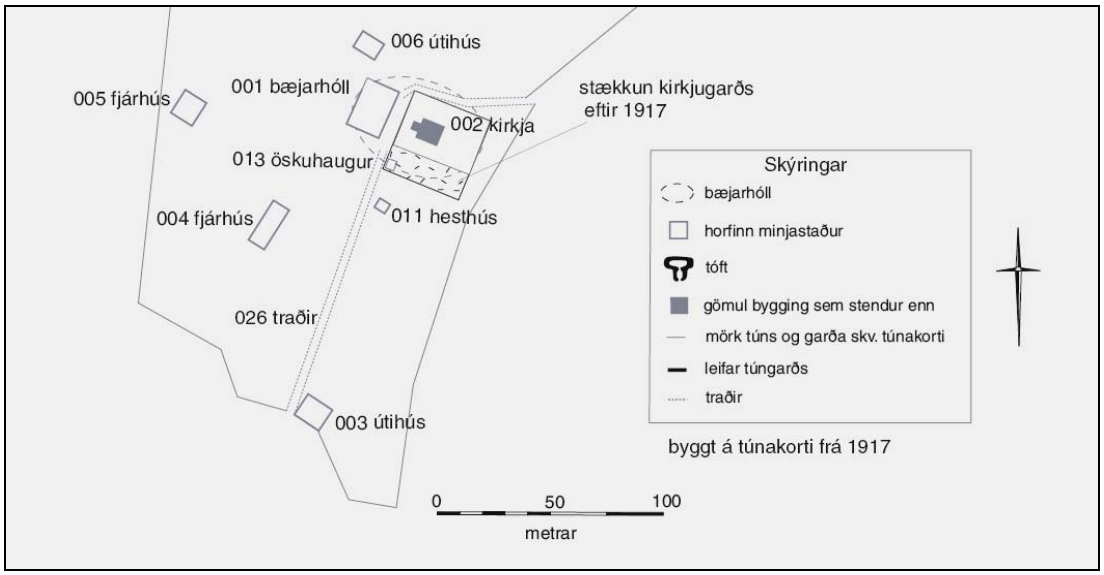


Figure 30 – Bakki church in Öxnadalur. survey map (Hreiðarsdóttir 2008, Vol. 2: 21).

On June 12, 2009, a team of three archaeologists revisited the site of the medieval church farm Bakki in Öxnadalur. Bakki used to be a wealthy church farm during the Middle Ages and is a working modern farm today, but the church is in use only on rare occasions. Both the modern farm house and the historical church are located on what has been described the farm mound by Hreiðarsdóttir (2008, Vol.2:21). The investigated midden is associated with the old Bakki farm and is located in the SW corner of the new addition to the churchyard.

Figure 31 – Bakki church in Öxnadalur. Picture faces ESE.

The 2009 coring exercise was undertaken to verify the *in situ* nature of the midden deposits encountered in 2008.

Figure 32 – Bakki, SW corner of churchyard. Picture on left: The modern farm house is visible on the right. Picture faces WNW. Picture on right: Revisiting midden in SW corner of churchyard. Picture faces ESE.

As in the 2008 midden coring transsects (see Harrison 2008b), the 2009 Bakki cores showed calcined bone fragments, frequent chunks of charcoal, peat ash deposits, turf debris, etc. What seemed to be very loose voids already noticed in the previous year were determined as the results of the churchyard extension in the 20th century. These voided spaces seem to be occurring throughout the midden limits newly tested in 2009 and thus indicate a disturbance to the midden layers that prevents the establishment of a secure midden formation chronology. The team decided to omit the Bakki midden from their research plan and instead concentrate on household midden sites that were not disturbed by construction, field leveling, or other recent earth moving activities.

Uppsalir, UPÖ (EY-196:008)

Coordinates: 65°40.999´N, 18°27.620'W, 180 m ASL

On June 13, 2009, another ruin site was cored in search of a potential medieval household midden. Uppsalir on Öxnhóll land, in Hörgárdalur.

Figure 33 - Survey plan of the Uppsalir farm ruin. (Hreiðarsd. 2008, Vol.1: 96).

A prominent feature in the surrounding landscape, the light green farm ruin mound of Uppsalir is located ca. 200 m northeast of the modern Öxnhóll farm complex (see Oddstaðir description above).

According to sources listed in the survey report (Hreiðarsdóttir 2008, Vol.1:96), this site was also hit by several landslides; one particularly strong one occurred in 1769, leading to the property's abandonment. The sources also indicate that Uppsalir may have been a small farm that was associated with the larger Öxnhóll church farm. The farm ruin measures about 6 m by 10 m and is located on the mound mentioned earlier.

Figure 34 – Left picture: Uppsalir ruin (circled) and Öxnhóll farm (arrow). Picture direction: SSW. Right picture: Uppsalir ruin mound indicated by arrow. Picture direction: ENE.

The team put in several cores into its perimeter, concentration on the southwestern (downward facing) slope of the mound. While a few inclusions of turf and charcoal could be detected in Cores 1, (GPS coordinates: *65°40.999´N, 18°27.620'W)* and 2, no obvious indication for a midden deposit were found. It is possible that a coring exercise over several days may help find household midden remains, but this time the team was not successful.

Beinirsgerði BGÖ (EY-192:014)

Coordinates: 65°42.296´N, 18°23.420'W, 75 m ASL

The Beinirsgerði site is situated on Skriða ground, about 2 km SW from the Skriða sites cored in 2008 (Harrison 2008b), and is said to have been abandoned in the latter half of the 17th Century AD (Hreiðarsdóttir et al 2008, Vol.1:74). It is not exactly known where the ruins are and the home field seems to have been flattened a bit, this could explain why the team had no success in finding the ruin of the old farm building in 2009.

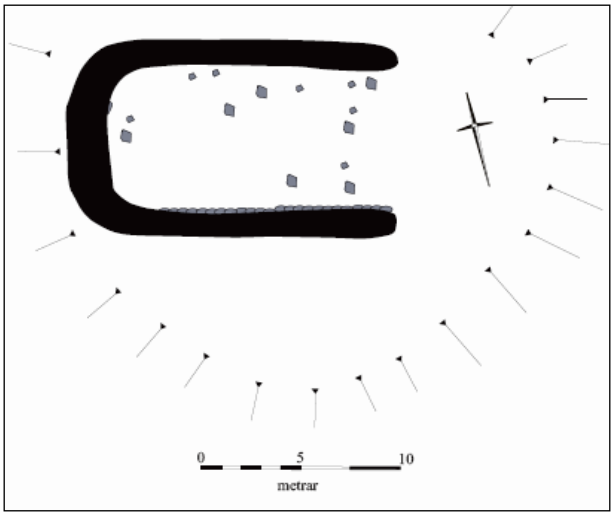


Figure 35 - Beinirsgerði ruin, most likely the 19th Century animal shelter (Hreiðarsdóttir 2008, Vol.1:74).

Figure 36 – Beinirsgerði, the 19th century ruin clearly visible, with a green area in front probably indicating an older ruing. Picture facing east (Hreiðarsdóttir 2008, Vol.1:74).

The ruin visible in figure 36 likely saw its last use as a shelter for farm animals (beitarhús) in the 19th century. The Beinirsgerði farm may have been abandoned as early as the late 1600s, but re-used briefly before the turn of the

century (1900) (see Hreiðarsdóttir 2008, Vol.1:74). Most of the grassland surrounding the ruin is wetland – water running down slope is creates a marshland-like environment. Several of the cores hit bedrock at about 30 cm below the surface. The first core was put in ca. 30 m NW of the very visible ruin and the GPS point taken reads as: *BGO N65º42.296', W018º23.420'*. Core 8, put in at ca. 40-50 m SW of the ruin, has the following GPS datum: *BGO-2 N65º42.261', W018º23.406'* Cores 8 and 7 (4m east of core 8) produced the deepest soil profiles and Core 8 contained traces of charcoal, and several layers of reddish deposits that may indicate bog iron formation. The wet, muddy ground, and the more or less natural looking core profiles that are rather colorful (see figure 38 below) are not good indicators for a household refuse midden location in this place.

Figure 37 – Beinirsgerði, coring for the midden associated with the farm ruin abandoned in 17th Century (Hreiðarsdóttir 2008 Vol.1:74). The structural remains are circled. Picture faces NE.

Also, the field may have been flattened, and cores 7 and 8 may reflect a redepositioning of upturned materials that contain iron particles. As at Uppsalir, to determine the potential presence of an *in situ* midden associated with the older farm building at Beinirsgerði, a coring exercise lasting several days would be advisable.

Figure 38 – Beinirsgerði, coring profile of Core 8. While very colorful, this may be a reflection of the natural environment found at this site.

Environmental Sampling

During the 2009 excavations at Skuggi, Myrkárdalur, and Oddstaðir, a series of environmental samples were taken for specialist analyses, i.e. archaeobotanical, archaeoentomological, chemical, and micromorphological analysis. The picture below shows Dr. Ian Simpson from the University of Stirling and his team while taking Micromorphology samples in kubiena tins at the Skuggi midden site.

Figure 39 – Dr. Ian Simpson and the Uni Stirling team samples from Skuggi´s western section.

Dr. Simpson and his crew will analyze the samples and look for chemical traces of past environmental conditions, fuel economy, and inorganic bone remains.

Figure 40 – Left picture: Oddstaðir, western end of northern section. Right picture: Skuggi, northern part of western section. Kubiena tins placed into selected contexts for Geomorphology sampling. The tin containers on the lower part of the right picture are in midden deposits still to be removed at the time the picture was taken.

In August 2009, Dr. Andy Dugmore and Richard Streeter from Edinburgh University visited Hörgárdalur and sampled the Skuggi and Oddstaðir tephra layers for chemical analysis. Currently, both sites likely have evidence of H1300 AD and H1104 AD tephra layers (Richard Streeter, Uni. Edinburgh, personal communication, November 2009). As mentioned already, both of these tephras

are sealing the midden layers at **Skuggi**, except for context (003), located between the two tephras.

At **Oddstaðir**, the 1300 AD tephra is located under several layers of midden deposits while the tephra itself is sealing midden deposits that may be contemporaneous w. the Skuggi archaeofauna. The archaeologists believed to have further found a post-medieval tephra layer (context 102) sealing the entire Oddstaðir midden. Radiocarbon analysis (AMS) on select faunal remains and tephra analysis of the volcanic ash layers will provide a precise site occupation account.

Conclusion and Future work

The 2009 GHP season was very successful, with three middens trial trenched and two of them, Skuggi and Oddstaðir, generating impressive amounts of well preserved archaeofaunas, several environmental samples, well preserved artefacts, and at least two tephra layers each. The Myrkárdalur midden has contributed valuable cultural and environmental data on post medieval site management in a highland part of Eyjafjörður. The Hólar bishopric in neighboring Skagafjörður seems to have been connected to this farmstead in one way or other from the 16th century (Hreiðarsdóttir 2008, Vol. 1:179) until at least 1712 (Jarðabók Árna Magnússonar og Páls Vídalíns, 1943 edition, Vol.10:145).

All of the sites whose midden´s were sampled in 2009 in combination with Möðruvellir and Gásir excavations have provided cultural and environmental data covering a variety of topographic locations and climate zones, several time periods in the Eyjafjörður settlement history, and different strata of the region's social hierarchy.

With excavation work completed for the Gásir Hinterlands Project 2008/09, there is a considerable amount of processing and analyzing required for the archaeological record accumulated during these two summer field seasons.

- The author is responsible for analyzing several **archaeofaunas** and will produce NORSEC/NABO Zooarchaeology Reports upon completion:
    - Analysis of the Myrkárdalur 2009 archaeofauna;
    - Analysis of the Skuggi 2009 archaeofauna;
    - Analysis of the Oddstaðir 2009 archaeofauna;
    - Analysis of the Möðruvellir 2008 archaeofauna.

- Results from the **chemical analyses** of the Micromorphology samples and the tephra samples will be produced by the specialists from Uni Stirling and University Edinburgh (UK).

- The **archaeobotanical** samples will be processed and analyzed under the direction of Dr. Michael Church at Durham University (UK).

- The **entomological** samples await processing and analyzing (hopefully coordinated by Dr. Allison Bain at U Laval, Canada).

- Several bone samples from Skuggi and Oddstaðir midden deposits will be used for **isotopic** (C14, N15, and C13) analyses and will help deal with the time frames for site formation.

- Dr. Ingrid Mainland from Bradford University has introduced a research project investigating highland vs. lowland caprine **herding structures** to be carried out on sheep (*Ovis aries*) and goat (*Capra hircus*) mandibular teeth from Iceland, and the Hörgárdalur collections will be part of that study.

- The numerous textile remains collected from the lower and earliest Möðruvellir midden deposits are designated for specialist analysis by Dr. Michele Hayeur-Smith in cooperation with Brown University.

This study on several middens in the area comprising part of the Gásir Hinterlands has shown that the Eyjafjörður region (particularly the Hörgá Valley) has great potential for generating similarly successful midden excavations. Howell M. Roberts (FSÍ), the initiator for this investigation into the Gásir hinterlands (Harrison & Roberts 2006) and Ramona Harrison (CUNY) hope to continue this work and extend the project to a larger area connected to the Gásir 14th Century market station and to gather information on the region's settlement history in general. One of the potential results of continued work in the Eyjafjörður region is an assimilation of archaeological and environmental

datasets similar to the ones collected in neighboring Mývatnssveit (i.e. McGovern et al 2007, McGovern et al 2006, Dugmore et al 2009).

Currently, there are six sizeable zooarchaeological collections available from the Eyjafjörður region; all except for the one from Granastaðir (Amorosi & McGovern 1994) have resulted from the Gásir, Möðruvellir, or Gásir Hinterlands Project excavation projects. Since 2006, the amount of regional archaeofaunas available has tripled through the addition of Möðruvellir, Skuggi, Myrkárdalur, and Oddstaðir midden investigations.

These middens are all associated with farm remains and thus can be understood as part of archaeological farm excavations. Upon completion of this initial stage of the Gásir Hinterlands Project, Granastaðir and Klaufanes Viking Age sites no longer stand alone in providing archaeological information on the history of the Eyjafjörður farming system.

Acknowledgements

This report was enabled by generous funding provided by grants from the US National Science Foundation (Grants OPP AC 0732327 and OPP ARC 0809033), and from Fornleifasjóður, Iceland (2008 excavation), and the CUNY Northern Science & Education Center.
The author would like to thank the 2009 field team, and especially Howell M. Roberts for his expert advice, patience, and support as well as sharing his ideas and data. Further thanks go to Elín Ósk Hreiðarsdóttir for all her help with the survey data and Þóra Pétursdóttir for her immediate help with numerous questions and logistical issues as well as editorial suggestions. Special thanks go to Bjarni E. Guðleifsson and Þóroddur Sveinsson for their hospitability and to Dr. Ian Simpson, Dr. Andy Dugmore, Dr. Andrew Casely, and Richard Streeter for their enthusiasm for the project, and Drs. Mike Church, Philippa Ascough and Gordon Cooke for their readiness to take on organic samples for archaeobotanical and isotopic studies. The author would like to thank her friends at FSÍ for all their help with things that would take much longer to accomplish (if at all) without them, especially Guðrún Alda Gísladóttir. Special thanks also go to Dr. Thomas H. McGovern and Dr. Sophia Perdikaris for their continuous support and advice, for giving the author access to their laboratories, and for their tremendous help discussing and disseminating the data.

References

Amorosi, T. & T.H. McGovern
1994 Appendix 4: A Prelminiary Report of an Archaeofauna from Granastaðir, Eyjafjarðarsylsa, Northern Iceland. In *The Settlement of Iceland: A Critical Approach: Granastaðir and the Ecological Heritage,* B. F. Einarsson. pp. 1981 -194. Reykjavík: Hið Íslenska Bókmenntafélag.

Dugmore, Andrew et al.
2009 Landscape Change, climate and human ecodynamics in Hörgárdalur, northern Iceland.
RANNÍS Research Proposal, 1. Detailed project description, September 2008, Reykjavík, Iceland. RESEARCH PROPOSAL.

Einarsson, Bjarni, F.
1995 The Settlement of Iceland: A Critical Approach: Granastaðir and the Ecological Heritage, Series B Gothenburg Archaeological Theses No 4 Gothenburg, Sweden.

Eldjárn, Kristján
1943 Skálarústin í Klaufanes og nokrar aðrar svarfdælskar fornleifar. *Árbók hins íslenzka fornleifafélags* 1941-42, pp. 17-33.

Harrison, Ramona
2009 The Gásir Area A Archaeofauna: An Update of the Results from the Faunal Analysis of the High Medieval Trading Site in Eyjafjörður, N Iceland.
NORSEC lab report No. 44, CUNY NY

Harrison, Ramona, Howell M. Roberts, W. Paul Adderley.
2008 Gásir in Eyjafjörður: International Exchange and Local Economy in Medieval Iceland. Journal of the North Atlantic 1 (1):99-119. Publisher: Eagle Hill Foundation.

Harrison, Ramona
2008b Interim Field Report Gásir Hinterlands Project 2008 Midden Prospection.
FS402-06383 Reykjavík (FSÍ) and New York (NORSEC), November 2008.

Harrison, Ramona
2008a Status Report on the faunal analysis from the 2007 Midden excavation at Möðruvellir, Eyjafjörður, N Iceland. NORSEC Lab/Status Report, CUNY, NY

Harrison, Ramona & Howell M. Roberts
2007 The Midden at Möðruvellir 2007: Preliminary excavation report of the Möðruvellir Midden, 2007. FS365-006382 Fornleifastofnun Íslands, *Reykjavík*.

Harrison, Ramona
2007 Interim Report of faunal analysis from the 2006 Midden excavation at Möðruvellir, Eyjafjörður, N Iceland. NORSEC lab report No. 37, CUNY NY

Harrison, Ramona & Howell M. Roberts
2006 The Midden at Möðruvellir 2006. Preliminary Excavation Report, FS338-06381 Fornleifastofnun Íslands, Reykjavík 2006

Harrison, Ramona
2006 Interim Report of Animal Bones from the 2005 Excavations at Gásir, Eyjafjörður, N Iceland, *NORSEC Zooarchaeology Laboratory Reports no 28.*

Harrison, Ramona
2006 The Church at Gásir, Eyjafjörður, N. Iceland Interim Report of faunal analysis from the 2006 Excavations. NORSEC lab report No. 38

Hreiðarsdóttir, Elín Ósk (ed.)
2008 Fornleifaskráning í Öxnadals- og Skriðuhreppi. Fornleifastofnun Íslands. Report FS370-04071. Reykjavík. Volumes 1-3. [5]

Hreiðarsdóttir, Elín Ósk
2001 Fornleifaskráning í Eyjafirðir XV: Aðalskráning í Glæsibæjarhreppi III, FS101-98042, Reykjavík.

Hreiðarsdóttir, Elín Ó. & Orri Vésteinsson
1999 Fornleifaskráning í Glæsibæjarhreppi II., FS101-98042, Reykjavík.

Jónsson, Brynjúlfur: 'Rannsókn í Norðurlandi sumarið 1905.' Árbók hins íslenzka
1906 fornleifafélags 1906, 1-27, Reykjavík.

Magnússon Á. & P. Vídalín (1943 edition)
1712 Jarðabók Árna Magnussonar og Páls Vídalíns, Vol. 10,1943. Íslenska fræðafelag í Kaupmannahöfn, Copenhagen.

Mainland, Ingrid, L.
2001 The potential of dental microwear for exploring seasonal aspects of sheep husbandry and management in Norse Greenland. *Archaeozoolgia* 11: 79-100.

Mainland, Ingrid, L.
2005 Pastures lost? A dental microwear study of ovicaprine diet and management in Norse Greenland. In *Journal of Archaeological Science 33, pp. 238-252.* Elsevier Ltd.

McGovern, T.H., S. Perdikaris, Á. Einarsson, and J. Sidell. 2006. Coastal connections, local fishing, and sustainable egg harvesting: Patterns of Viking Age inland wild resource use in Myvatn district, Northern Iceland. Environmental Archaeology 11 (2): 187–205.

McGovern, T. H., O. Vésteinsson, A. Fridriksson, M. Church, I. Lawson, I. Simpson, Á. Einarsson, et al. 2007. Landscapes of settlement in northern Iceland: Historical ecology of human impact and climate fluctuation on the millennial scale. American Anthropologist 109(1):27–51.

Roberts, Howell M.
2004 Garðlag á Möðruvöllum í Eyjafirði. Fornleifarannsókn. FS254-04251, Reykjavík.

Roberts, H. M. et al.
2002a Fornleifarannsókn á Gásum / Archaeological Research at Gásir, 2001. An Interim Report/Framvinduskýrsla. Fornleifastofnun Íslands FS163-01071, Reykjavík.

Roberts, H. M. et al.
2002b Archaeological Investigations at Gásir 2002, a preliminary report. Fornleifastofnun Íslands FS180-01072, Reykjavík.

[5] for additional sources used in Hreiðarsdóttir´s 2008 Eyjafjörður survey report, see: Hreiðarsdóttir 2008 Vol.2:247-250

Roberts H. M. et al.
2005 *Gásir 2004, an Interim Report,* Fornleifastofnun Íslands FS194-01073. Reykjavík.

Roberts, H. M. et al.
2006 Excavations at Gásir 2001-2006, A Preliminary Report, Fornleifastofnun Íslands FS335-01079. Reykjavík.

Roberts, H. M. & Pálsdóttir, L.B. et al.
2006 Excavations at Gásir 2005 – An Interim Report/Framvinduskýrsla. Fornleifastofnun Íslands FS312-01078. Reykjavík.

Roberts, H. M. et al.
2009 Gásir Post Excavation Reports – Volume 1. 2009, FS423-010712, Fornleifastofnun Íslands, Reykjavík.

Vésteinsson, Orri
2001 Möðruvellir í Hörgárdalur: Fornleifakönnun. Fornleifastofnun Íslands FS153-89071, Reykjavík.

Vésteinsson, Orri & S. G.
1998 Fornleifaskráning í Glæsibæjarhreppi I. FS070-98041, Reykjavík.

The beads from Skuggi, Oddstaðir and Myrkárdalur 2009

Elín Ósk Hreiðarsdóttir

In the summer of 2009 trial trenching was conducted into middens at three abandoned farms in Hörgárbyggð, Eyjafjörður. During the excavation eight beads were recovered.

The northernmost midden is the site of Oddstaðir which is located within the property of modern farm of Öxnhól. According to written sources the farm was habited on and off through centuries but finally abandoned in 1762. Very little is known about the site called Skuggi which is located within the propperty of present day farm of Staðartunga. No written sources mention the farm directly but a road to the farm is mentioned *Diplomatica Islandica* in the 14th century. The third location is Myrkárdalur. There the trench there was taken into a midden by a ruin which is believed to be the remains of a the eariler farm on the propperty, which was relocated after a mudslide fell on it in 1337.

Four of the beads came from a midden at Skuggi, three from a midden at Oddstaðir and one from Myrkárdalur. These were examined both macroscopically and with the aid of a Leica MZ 6 microscope at 40X magnification.

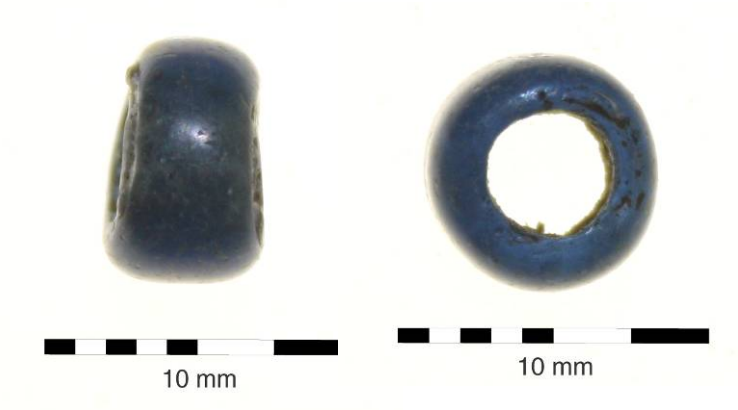
Oddstaðir had two glass beads and one made out of Icelandic sandstone, Skuggi three glass beads and one out of Icelandic sandstone and during the trenching in Myrkárdalur one sandstone bead was recovered. In five of the cases only a part of the bead was recovered but most of the beads were in fairly good condition. The glass beads were classified according to Johan Callmers system of Scandinavian beads with reference to Icelandic parallels (Callmer 1977; Hreiðarsdóttir 2005).

The glass beads are all Viking age, but mostly types that were common throughout the whole period and therefore cannot be dated more closely within the period save for one, a decorated glass bead from Oddstaðir (ODÖ2009-026). This bead is most likely from the turn of the tenth century or later. Most of the glass beads were made in Scandinavia or W-Europe although one bead (SKÖ2009_62) was most likely produced in the eastern Mediterranean. The two sandstone beads are simple and without strong characteristics that can clearly date them. Such beads have been found a few times in Iceland, most commonly in Viking age contexts. The material and the craftsmanship indicates that they were of local production, adding them to a

small but ever growing group of beads made in Iceland. Detailed descriptions of each bead are given below.

Beads from Skuggi

SKÖ-2009-036
Material: Glass.
Condition: The bead is whole and the glass is in good condition
Shape: Rounded.
Size: Length 0,4 -0,5cm, diam. 0,71-0,74 cm, diam. of hole: 0,39-0,41 cm.
Method of manufacture:
Wounded glass.
Colour: Dark blue.
Found in context: 2009-038



Bead SKÖ09-036

Bead SKÖ-2009-036 is a simple, wounded, dark blue glass bead. The bead is complete and in good condition. It is of type A171 which is one of the most common bead types found in Viking age Iceland and over 100 such beads have been recovered from excavations and burials across the country. This type of bead was found throughout the Viking Age and is most likely made in Scandinavia or Western Europe.

Under a microscope slight bubbles can be detected in the glass and they show the direction of the glass (around the hole). The surface of the bead is marked with lots of scratches and in the glass itself a lot of impurities can be seen and there two big white blobs that can be detected with the bare eye. One end of the bead is flat and even but the other is slightly uneven and there the direction of the glass can clearly been seen around the hole. Some tool marks can be seen around the hole at the ends.

SKÖ-2009-054
Material: Icelandic sandstone.
Condition: About half of the bead was recovered but the stone itself is in good condition.
Shape: Irregular.
Size: Length 0,82-0,85 cm, diam. 1,21 cm[6], diam. of hole: 0,01-0,39 cm.
Method of manufacture: Carved/cut and polished.
Colour: Reddish brown.

[6]Only half the bead was recovered and the remaining diameter is 1,21 cm. It does however look like the bead was very uneven and that the the other diameter might have been up to 1,6 cm. It is impossible to know the precise size of the fragment broken off.

Found in context: 2009-025 – Trench 1, extension.

Bead SKÖ-2009-054 is a reddish-brown bead of sandstone. About half of the bead was recovered. The bead is very irregular but its shape is roughly oval. One end is very uneven and does not seem to have any polishing or fine work done on it but the other end is rather flat and has been polished. The hole in the bead is well made, starts off very narrow (0,01 cm) at the rough end and then widens out (to about 0,39 cm) in the flat end of the bead. It is possible that the bead broke in two when the hole was made and that is the reason why it was never worked further. The bead is made out of a reddish sandstone and is presumably of Icelandic local production. Just over 20 beads have been found in Iceland that are likely of local production. It is difficult to prove that they were made in Iceland but they were all made out of stones that are found in Iceland and have in common that nothing in their make or craft indicates developed production and none of them seems of the sort that would be transported a long way for trade. Most of these beads are of simple style and rather roughly made. Out of these beads, sandstone-beads are the most common and have been found in burials, excavation and as a stray find. The bead does not have any clear characteristics of Viking age and beads as simple as this one are impossible to date chronologically.

Bead SKÖ2009_054

SKÖ-2009-060

Material: Glass.
Condition: A part of the bead has broken off but it is impossible to say how much. The glass heavily eroded by glass disease.
Shape: Cylinder.
Size: Length 1,02 cm[7], diam. 0,7-0,75 cm, diam. of hole: 0,32-0,35 cm.
Method of manufacture: Wounded glass (was most likely decorated)
Colour: The original colour has disappeared but the bead is now bluish gray.
Found in context: 2009-038 – Trench 1.

[7] Although a full thickness can not be determined since the bead is broken

Bead SKÖ-2009-060

Bead SKÖ-2009-060 is a grayish glass bead, heavily damaged by glass disease. At first glance the bead might appear from stone but examination in a microscope clearly shows that it is made out of glass. On the surface a small dot of dark green glass can be seen in one place but it is not possible to determine whether that is the original colour of the bead or just another face of the glass disease. Part of the bead has broken off, one end is quite straight (although at an angle) but the other (where a part has broken off) is uneven. It is not possible to determine how big the bead was originally. The bead is wounded and it is not unlikely that the bead body was originally decorated, either with line décor or mosaic glass pieces. Because of its poor condition it is however impossible to determine its original features or classification. For the same reasons a chronological date will not be established although the shape resembles Viking age glass beads quite well.

SKÖ-2009-062

Material: Glass.
Condition: Just under half of the bead body has been preserved but all of the foil has now disappeared at least to the naked eye.
Shape: Rounded.
Size: Length 0,63, diam. 0,66 cm, diam. of hole: around 0,1 mm.
Method of manufacture: Blown glass.
Colour: Unknown
Found in context: 2009-051, Trench 1.

Bead SKÖ2009-062

Bead 2009-62 is a blown bead of clear Viking age type. The remains of the bead are just under a half of a colourless glass bead body. The bead is however very similar to blown beads of type E130 and E110 that have gold or silver foil on top of a colourless bead body. In this case it is most likely that the foil has simply rubbed off. It is therefore impossible to determine the precise type of the bead but it

can be said that it is of E-type (blown bead) and most likely belongs to type E-110 or E-130 which are both a common bead types in Iceland.

Both ends of the beads are very slightly raised. The glass is in good condition although the glass surface is a bit rough and is covered with little holes that are now full of earth. Foil beads like this could be manufactured in many ways but most commonly the golden/silver colour was achieved by applying a foil on a top of a body of a colourless glass. To seal the foil a thin layer of colourless glass was then added on top.

According to Callmer's chronology it is likely beads like this were in circulation throughout the whole of Viking age. Callmer suggests the eastern Mediterranean as a likely production area.

Beads from Oddstaðir

ODÖ-2009-031

Material: Glass.
Condition: The bead is whole and the glass is in good condition
Shape: Rounded.
Size: Length 0,3-0,4 cm, diam. 0,75-0,77 cm, diam. of hole: 0,38-0,4 cm.
Method of manufacture: Wounded glass.
Colour: Blue.
Found in context: 2009-161- Trench 1.

Bead ODÖ-2009-31 is a complete, blue bead of simple type. It is wounded, undecorated and in good condition. The bead is of slightly lighter blue colour than SKÖ-2009-36 which is due to quality of the glass. The glass of this bead appears lighter in colour because it has more air-bubbles within it. The bubbles clearly show the direction of the glass (around the hole). The bead is of type A171 which was found throughout the Viking Age and probably made in Scandinavia or Western Europe. The bead is a little uneven in length but the diameter is rather even and the bead well made from good quality glass (seems to be very transparent all the way to the hole where there is lots of dirt and unevenness). Very fine tool marks can be seen at both ends of the bead.

Bead ODÖ2009-031

ODÖ-2009-024

Material: Icelandic sandstone.
Condition: The bead is complete and in good condition.
Shape: Rounded.
Size: Length 0,72-0,78 cm, diam. 1,45-1,5 cm, diam. of hole: 0,5 cm.
Method of manufacture: Carved/cut and polished.
Colour: Reddish brown.

Found in context: 2009-134 – Trench 1.

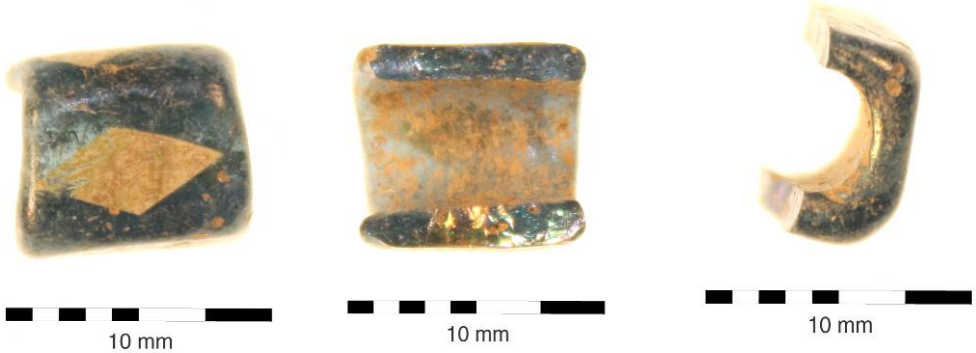
Bead ODÖ2009-024

Bead SKÖ-2009-54 is a reddish-brown sandstone bead. The bead is fairly well made and polished, with flat ends, even surface and well made hole. The hole of the bead is even and straight through. Like the similar but more poorly made sandstone bead from Skuggi, this bead is presumably also of Icelandic local production. The same applies for this bead as the other, it does not have any clear characteristics that could tie it to an era (such as Viking age) and therefore it is impossible to date the bead chronologically.

ODÖ-2009-026

Material: Glass.
Condition: Half of the bead was recovered but the glass is in good condition.
Shape: Rectangular prismatic.
Size: Length 0,8-0,88 cm, diam. 0,73 cm, diam. of hole: 0,4 cm.
Method of manufacture: Wounded, decorative glass.
Colour: Dark blue with white inlay of glass
Found in context: 2009-140 – Trench 1.

Bead ODÖ-2009-26 is a wounded, decorated bead of a very unusual sort. Such a bead has not been found in Iceland before. The bead is rectangular with a wide hole. On each of the four sides was a cold cut white/light coloured inlay of glass, shaped as a diamond. One of the bead sides is complete and there the whole diamond can be seen but also halves of two diamonds on the sides that are have broken away. A part of the diamond that is on the whole side has broken off and from the break it is clear that the diamond decoration is very thin and fragile (which can also been seen from the section break). The diamond decoration is only a fragment of a millimeter in width.



Bead ODÖ2009-026

One of the diamonds that is on the broken side is almost whole and reaches into the corner of the bead. The other diamond has a slight damage in it. The hole of the bead is very wide

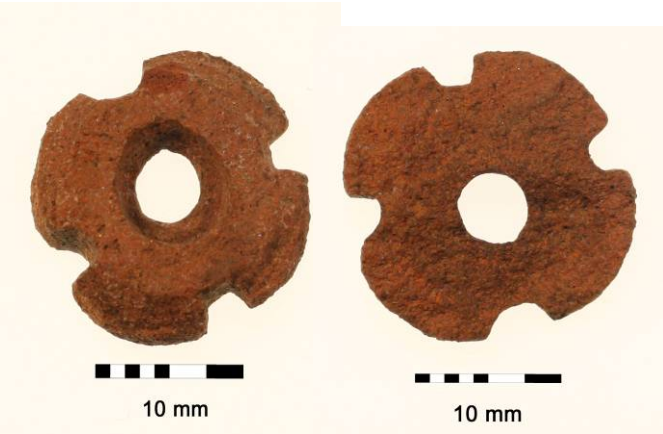
and the glass walls thin. The quality of the glass is good, it has a few holes in the surface and in the break an oily reflection can be seen which might be the very first indication of glass disease. This bead is of type AD B429 and according to Callmer, beads of this type are hardly found in contexts earlier than the turn of the tenth century.[8] It is considered most likely that these beads were made in Scandinavia or Western Europe.

Bead from Myrkárdalur

MYÖ2-2009-031

Material: Icelandic sandstone.
Condition: About half of the bead was recovered but the stone itself is in good condition.
Shape: Rounded, with a primitive melon carving.
Size: Length 0,45-0,53 cm[9], diam. 1,93-1,96 cm, diam. of hole: 0,45-0,6 cm.
Method of manufacture: Carved/cut and polished.
Colour: Reddish brown.
Found in context: 2009-200.

Bead MYÖ-2009-31 is a reddish-brown sandstone bead. The bead most likely an Icelandic production but is unusually well made and polished. Only a part of the bead was recovered, perhaps about 50%. It is a rounded bead with a melon shape. Four grooves have been carved out in the bead body stretching between the ends. The end that is whole is well made and polished. The hole is wide at that end but gets narrower towards the other end. The same applies for this bead as the other sandstone beads discussed earlier, that is it does not have any clear characteristics that could tie it to an era and therefore it is impossible to date the bead chronologically.



Bead MYÖ-2009-031

Reference

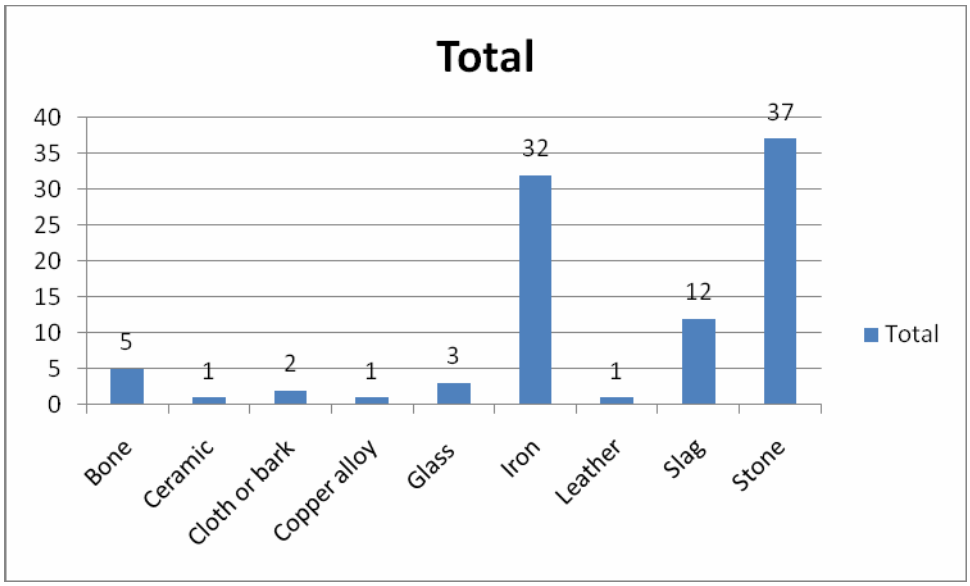
Callmer, Johan. 1977. *Trade beads and bead trade in Scandinavia, ca. 800-1000 A.D.* R. Habelt: Lund.

Elín Ósk Hreiðarsdóttir. 2005. *Íslenskar perlur frá víkingaöld: með viðauka um perlur frá síðari öldum.* Ritgerð til M.A. prófs í fornleifafræði. Hugvísindadeild Háskóla Íslands.

[8] Callmer mentions that Fechner, M. 1959, pp. 170-171 (K voprosu ob ekonomiceskich sv´az´ ach drevnerusskoj derevni. In Ocerki po istorii russkoj derevni. Trudy Gosudarstvennogo Istoriceskogo Muzeja, vyp. 33.) dates a bead of this type to the 10th century from the basis of a coin find.
[9] Although a full thickness can not be determined since the bead is broken

Gásir Hinterlands Finds report
Skuggi
Guðrún Alda Gísladóttir
Sigrid Juel Hansen, whetstones
Sólveig Guðmundsdóttir Beck, stone analysis

The finds database from the midden excavations at Skuggi includes a total count of 94 finds, grouped into 70 finds numbers. Two finds numbers, 70 and 31, were discarded in the post excavation process as they were natural formations. Included in the database are 284 g of slag, the most numerous finds material in the database. The preservation is poor to good, e.g. bones are in good-excellent condition, metal corroded, and the presence of organic material other than bone is minimal. The material includes metalworking waste, ceramics (possible crucible fragment), iron (mostly distorted nails/rivets and indeterminate iron fragments, also knives, possible fittings and horse crampon (fragment), one copper alloy piece, stones (manuports, whetstones and gaming pieces), bone (two pins, one comb fragment, an unworked piece and one piece still awaiting analysis), glass (beads), leather and possibly textile (await analysis).
The numbers of excavated contexts were 45 and of them 29 produced finds. The most finds were retrieved from context [21] with 9 finds, then [36] with 8 finds, [38], other contexts have less, 1-7 finds. Most of the finds come from midden deposits that infill what is possibly a Viking age building.



Bone

There are five finds in this category: One complete pin 56 [35], one bone pin shank 74 [36], comb tooth plate fragment 34 [on top of wall in se corner of deposit (E)], one unworked decayed, sooted bone 76 [17] and bone that awaits further analysis 9 [3]. The complete bone pin 56 is simple, headless, with only a slightly expanded oval shaped flat top, 128 mm in length. Across the top part, bone has been cut away and this left a little pedestal. The shank is rather even but tapers gently to a point ca. 2/3 from the shank. Little above the point there are four decorative dots evenly in a row and the surface is polished smooth. The head and the point of bone pin shank 74 have roughly been broken off. There is an unusual expansion on the shank fragment (roughly in the middle), giving the shank an almost a lozenge shaped appearance. Most of those pins are considered dressing pins, though alternative function as hair pins must also be considered.[10]The swelling in the shank fragment 74 probably had the function of keeping the pin in place.[11] The single comb tooth plate 34 has one long edge roughly broken and oxidise from an iron rivet can be seen on the bone. Other sides are cut square; six teeth are intact, at least two broken off.

Fig. 1. Bone pin no. 56.

The bone material mainly comes from registered ash deposits, probably dumps, correlating to the broken state of the finds except pin no. 56 which is complete.

Leather

The small leather piece 25 from context [24] awaits analysis.

Textile

Only one find, no. 29 from context [33] possibly contains textile shred. That find awaits further analysis.

Copper alloy

One find of copper alloy was retrieved, no. 8, from a bone and charcoal rich deposit [3]. It is a heavy fragment of copper. It is burnt/melted, mainly on one side which is rough and uneven, but the other side is plain and smooth. This is

[10] MacGregor, Arthur. *Bone, Antler, Ivory and Horn*, 113.
[11] MacGregor, Arthur. *Bone, Antler, Ivory and Horn*, 116.

possibly metalworking debris or a vessel fragment in reuse process. It was found with bone no. 9 and stone manuport 48 that awaits further analysis.

Iron

Fig. 2. Knife no. 20.

This material category constitutes the largest number of objects: 32 finds (grouped into 22 finds numbers). By far, the nails/rivet and roves category is the biggest with 18 finds registered under 14 finds numbers: 11 [13], 49 [16], 28 [32], 55 and 57 from [35], 33 [36], 35 [38], 38, 39, 40 and 61 from [39], 43 [43], 71 [44], 46 [46]. All of the above mentioned finds are incomplete except rivet 33. The condition of the finds and the context in which they are found (mostly burnt deposit with peat - or wood ash and charcoal) suggest they have been discarded. However, some are also found in connection with metalworking waste that could indicate reuse process.

Find no. 20 is a complete knife. The rear of the back slopes slightly downwards and then changes the plane more downwards towards the point. The shoulder turns upwards but the choil turns gently downwards. This knife is similar to Ottaway type A3.[12] It is found with stone manuport no. 21 in context [23] which is a mixed deposit. Find no. 30 is possibly a horse crampon fragment, one arm of it. It is an oblong, flat piece of iron that has one narrow end which is slightly bent and tapers to a point. It was retrieved from the find rich peat ash deposit [36] which contained various finds i.e. whetstone 32, complete stone tool 31, complete rivet 33, incomplete bone pin 74, manuport stone 58 and fire cracked stone 72. In the iron assemblage are two possible fittings: 44 [43] and 47 [8], both flat iron pieces, one with perforation. Four iron lumps 42 [40], 52 [21], 63 [51] and 75 [43] are of indeterminate use, all from burnt ash deposits except 63 which is found in turf collapse.

The iron artefacts were retrieved from 14 deposits, four of the finds are from mottled peat ash and wood ash dump deposit [39]. The iron artefacts mostly come from burnt ash deposits and are broken and misshaped, some in connection with metalworking waste that could indicate reuse of the material at site.

[12] Ottaway, Patrick (1992) *Anglo-Scandinavian Ironwork from Coppergate*, 565-566.

Metalworking waste

Fig. 3. Stone artefact no, 31.

A total of 284 g of slag was retrieved during the research. Slags no. 12, 13, 15, 19 and 26 from contexts [13, 15, 17, 19 and 24] are all found within ´unburnt´ deposits as turf collapses and mixed deposits, though one is found with burnt bone (no. 76, dep. [17]). The slag from those contexts weights 71,81 g. The rest of the slag, no. 50, 66, 67, 68, 69, 77, 78 and 79 from burnt deposits, peat and wood ash deposits [16, 22, 38, 40, 43 and 44], weigh a total of 212,18 g. It is not possible to draw a conclusion about the scale of the metalworking from this small assemblage of smelting debris retrieved from the trial trench 1 but it does suggest presence of a nearby smithy.

Stone

In all 37 stone finds are grouped into 23 finds numbers. Of those, two finds are Norwegian Eidsborg whetstones; see Sigrid Juel Hansen report below (finds no. 32 [36], 73 [33] and 45 [48]). Whetstones 73 and 45 are both found in peat ash deposits, find no. 73 with possible textile fragment no. 29. Find no. 45 was the only artefact in deposit [48], a nice and small pendant whetstone. Number 32 is from the find rich deposit [36], which has been discussed above in connection with the possible horse crampon. Present in the assemblage are 3 complete gaming pieces of stone; they are all of well known Viking age and early medieval form, dome shaped and with pointy head. Gaming piece 24 is from midden deposit [24]. It is dome headed and made of red sandstone. Number 64 was found in turf collapse on the inside of the Northern wall, deposit [53]. It is dome shaped with a low knob on top and a basal hole. The piece is made of grey soft sandstone, cut and carving marks are visible as burn marks. Basal holes are well known both in bone and stone gaming pieces in Iceland, though they are not as common in stone pieces.[13] The role of the basal hole gaming pieces is somewhat unclear[14], but possibly a peg in the game of *hnefatafl*.[15] Gaming piece 65 from deposit [D] is crudely worked with a pointed head, made of red sandstone. Artefact 31 from the find rich peat ash deposit [36] is very interesting. It is a mostly naturally dome shaped stone though one

[13] Kristján Eldjárn (2000) Kuml og haugfé úr heiðnum sið á Íslandi, 417-418.
[14] Kristján Eldjárn (2000) Kuml og haugfé úr heiðnum sið á Íslandi, 417-418.
[15] MacGregor, Arthur (1985) Bone, Antler, Ivory and Horn, 135.

side is slightly formed – it has a naturally good grip that has been modified little – and is smoothened by repeated handling. The base of the stone has a convex shape and is highly polished and smooth. The role of the object is unclear but it probably is a smoothing tool of some sort.
Most of the stone finds are manuports; 27 stones registered under 14 finds numbers. The types are diverse, mostly amygdales: onyx (quartz) and opal. The rest of the manuports are jasper, spherolite and siltstone.

Ceramics
One curved fragment, no. 18 is from mixed wood and peat ash deposit [18]. It is a possible crucible fragment, glazed/melted on the outside; no metal residue can be seen on the inside of the fragment. Crucibles indicate fine metals working on the site, and few of them have been found on Viking age sites in Iceland i.e. Suðurgata in Reykjavík, Kárahnjúkar in East Iceland, Hofstaðir in Mývatnssveit and Naust in Akureyri.[16]

Glass
Three Viking age glass beads were retrieved. Two are from peat ash dump [38], bead no. 36, a simple blue glass bead, and the heavily damaged bead no. 60. The third bead is the broken clear segmented glass bead no. 62 from turf collapse [51]. No. 36 and 62 are both of common Viking age types and no. 60 resembles types from that period but is heavily damaged. (For further discussion see Elín Ósk Hreiðarsdóttir, this volume).

Summary
All the finds come from Trial trench 1 which consisted mainly of midden deposits that infilled an abandoned ruin. The assemblage is very interesting and diverse, though many of the finds are broken and distorted, a fact correlating to the find circumstances. The beads are probably of Viking age origin and as a whole the finds assemblage from Skuggi is very comparable to other Icelandic Viking age and early medieval finds assemblages.

[16] Nordahl, Else (1988) Reykjavík from the archaeological point of view, 59, 113-114; Lucas, Gavin (ed.) (2007) Fornleifauppgröftur á Pálstóftum við Kárahnjúka, 3; Batey, Colleen (2007) ´3. Finds.´; Lucas, Gavin (ed.) (2009) Hofstaðir. A Viking Age Feasting Hall in North-eastern Iceland. Reykjavik, Fornleifastofnun Íslands; Guðrún Alda Gísladóttir. Viðauki II: Gripaskýrsla, 36.

Reference

Kristján Eldjárn (2000) *Kuml og haugfé úr heiðnum sið a Íslandi*. 2. útgáfa. Adolf Friðriksson(ritstj.) Reykjavík, Mál og menning.

MacGregor, Arthur (1985) *Bone, Antler, Ivory and Horn. The Technology of Skeletal Materials Since the Roman Period*. New Jersey, Barnes and Noble.
Batey, Colleen (2007) ´3. Finds´ *Fornleifauppgröftur á Pálstóftum við Kárahnjúka*. Gavin Lucas (ritstj) Reykjavík, Fornleifastofnun Íslands.

Nordahl, Else (1988) *Reykjavík from the archaeological point of view*. Uppsala, Societas Archaeologica Upsaliensis.

Lucas, Gavin (ed.) (2009) *Hofstaðir. A Viking Age Feasting Hall in North-eastern Iceland*. Reykjavik, Fornleifastofnun Íslands.

Ottaway, Patrick (1992) *Anglo-Scandinavian Ironwork from Coppergate, York. Fasicule 17/6.* York Archaeological Trust/Council for British Archaeology.

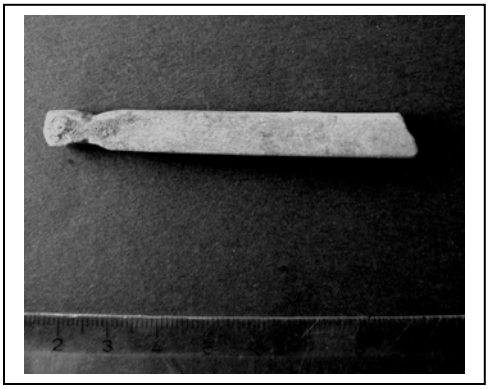
Guðrún Alda Gísladóttir (2009) ´Viðauki I: Gripaskýrsla´. *Björgunaruppgröftur í landi Nausta á Akureyri (Skýrsla II).* Oddgeir Hansson (ritstj.). Reykjavík, Fornleifastofun Íslands.

Appendix 1

Whetstones from Skuggi

Sigrid C. J. Hansen

Area/trench 1:



Find no. 32, Context 036:

This is a well preserved whetstone fragment of the light grey Eidsborg schist type from the Telemark region in Norway. No deterioration of the stone visible and sharp edges, possibly of the "hardsteinn" type[17].

This is a rather large fragment, probably originally belonging to a larger whetstone or a production fragment from cutting off whetstones from a block of raw material. Two sides are rather smooth and would be usable for grinding, though the surfaces are quite small but there are no grinding marks they do not seem to have been put to use or at least only very limited.

Dimensions: weight 31g, Length 4,7cm, width 2cm, thickness 2cm

Find no. 45, Context 048:

This is a well preserved whetstone of the light grey Eidsborg schist type from the Telemark region in Norway. Limited deterioration of the stone visible around the edges and upper end piece and only slightly rounded edges of the long sides. Small flecks of sooth smear visible.

It is preserved as a whole but slightly chipped small pendant whetstone with an almost rectangular cross section. All four grinding surfaces are smooth, only moderately used and well preserved. Both end pieces are probably original though roughly shaped. Slight grinding marks across the lower end piece. The strap attachment on the upper end piece consists of rather irregular cuts into the two broad sides. One side has a 0.7 cm broad and very shallow cut, the

[17] Sigrid Cecilie Juel Hansen, 2009: Whetstones from Viking Age Iceland - *As part of the Trans-Atlantic trade in basic commodities,* MA thesis University of Iceland, Reykjavík, Ch. 3

opposite side one rather deep v-shaped cut and two more shallow cuts into the surface. The purpose of this particular pattern is unknown but could be for either a metal or strap fitting to keep the pendant whetstone attached to the clothing. Holes are mostly used as means of suspension in pendant whetstones and the strapping type used in this whetstone is not commonly found in Iceland, but is known from the excavation at Hrísbrú in Mosfellsdalur[18], Skutustaðir [19] and in several examples from the Viking age trading site of Haithabu in Germany[20].

Dimensions: weight 10.5g, Length 10cm, width 0.6-0.9cm, thickness 0.6-0.7cm

Find no. 73, Context 033

This is a well preserved whetstone fragment of the light grey Eidsborg schist type from the Telemark region in Norway. No natural deterioration of the stone visible but some wear marks or wounds on the edges, most likely post-depositional.

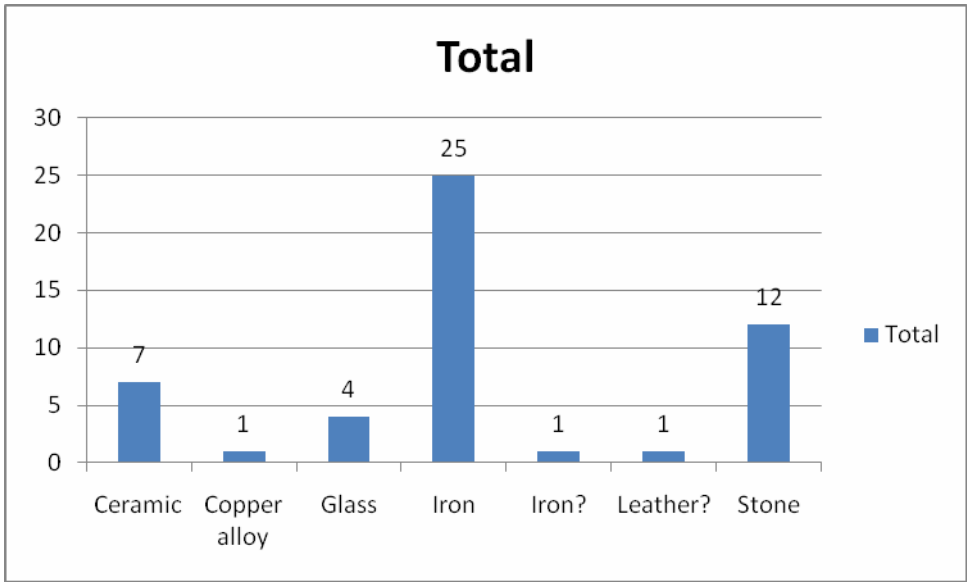
This is an end and middle piece of a medium sized whetstone. The sides of the whetstone are tapering in towards the middle piece due to more intensively grinding in this area. The whetstone consists of four usable smooth grinding surfaces, one with several vague grinding groves along it. The preserved end piece is roughly shaped and shows marks of production technique, where it has been carved in from both sides and broken off when only the centre remained attached. This fragment would have been functional even after breakage but is commonly found discarded at this size[21] indicating that there must not have been an immediate lack of whetstone raw material at the site.

Dimensions: weight 29,7g, Length 6.2cm, width 1.7-1.1cm, thickness 1.4-1cm

[18] Hansen, 2009, Ch. 4
[19] Whetstones from Skutustaðir 2008 - Preliminary assesment by Sigrid C. J. Hansen April 2009, In: Öskuhaugsrannsóknir á Skútustöðum í Mývatnssveit 2008, Fornleifastofnun Íslands, Reykjavík 2009 (FS419-08271)
[20] Resi, Heid Gjöstein 1990, *Die Wetz- und Schleifsteine aus Haithabu. Bereich über die ausgrabungenn in Haithabu 28,* See pages 78-81, Plates 11-13.
[21] Hansen 2009, Ch. 6

Gásir Hinterlands Finds report
Myrkárdalur
Guðrún Alda Gísladóttir
Sigrid Juel Hansen, whetstones
Sólveig Guðmundsdóttir Beck, stone analysis

The finds database from the midden excavations at Myrkárdalur includes a total count of 51 finds, grouped into 41 finds numbers. The preservation is poor to average, iron very corroded and presence of organic material is minimal. The material includes iron, glass, ceramics and stones and possibly one leather fragment. (For **glass** and **ceramic** discussion see Gavin Lucas, this volume).
Sixteen out of the 23 excavated contexts contained finds. The context richest in finds was the top soil [200] with 14 finds, then mixed soil deposit [201] with 6 finds, other contexts have less, 1-5 finds. All the finds are from midden deposits.



Leather?
Find no. 4 from peat ash deposit [206] awaits analysis.

Copper alloy
One find, 22, is a small tack made of rolled sheets, with flat circular head.

Iron
The preservation of iron finds is poor; all objects are very corroded and distorted. The iron material group is the largest of the finds assemblage, with 26

finds (grouped into 19 finds numbers). Nails and possible nails are the largest category by far; 14 finds registered under 11 finds numbers. Another object is a narrow, oblong piece, no. 2 from wood ash deposit [204] bent on both ends. One end has a relatively fine point, this is possibly a broken staple; Further finds are a complete needle, no. 25 from ash deposit [221]; one definite incomplete knife no. 12 from mixed soil deposit [201] and a possible knife fragment no. 20 from mixed peat-and wood ash deposit [212]. Others are indeterminate lumps.

Stone

In all 12 stone finds are registered (grouped into 10 finds numbers). Of those, one find is a Norwegian Eidsborg whetstone; see Sigrid Juel Hansen discussion below (find no. 27 [201]). One bead of red sandstone (no. 31. from the top soil deposit [200]) is among the stone assemblage; split in half longways, (see Elín Ósk Hreiðarsdóttir discussion, this volume). The rest of the stone finds are all manuports of diverse types and materials; Jasper, onyx, opal, red sandstone and quartz.

Summary

All the finds are from Trench 2 which consisted of midden deposits at the farm Myrkárdalur. The assemblage is sparse and preservation poor/average. None of the above mentioned finds can date the assemblage, but the ceramics suggest a 16th/17th century date (see Gavin Lucas discussion. this volume).

Whetstones from Myrkárdalur 2009

Sigrid C. J. Hansen

Find no. 27, Context 201:

An end and middle piece of a medium sized whetstone of the light grey Eidsborg schist type from the Telemark region in Norway. No natural deterioration of the stone is visible but some wear marks or wounds on one of the broad sides, most likely post depositional. The stone appears very dark grey but the light to mid grey colour is visible in the wounds.

The whetstone has four grinding surfaces of which probably the two broad sides were mostly used. But the entire stone shows wear after grinding, even the strongly tapering end piece and the broken middle piece indicating it was used after breakage. One broad side is flat and smooth the opposite side is rounded and more irregular with grinding wear and marks across the surface.

The stone is preserved at a well usable size for continuous grinding purposes but whetstones are commonly found discarded at this size[22] indicating that there was possibly no immediate lack of whetstone raw material at the site.

Dimensions: weight 33.5g, Length 8cm, width 0.5-2.2cm, thickness 0.2-0.6cm

[22] Sigrid Cecilie Juel Hansen, 2009: Whetstones from Viking Age Iceland - *As part of the Trans-Atlantic trade in basic commodities,* MA thesis University of Iceland, Reykjavík, Ch. 3, Ch. 6

Gásir Hinterlands Finds report

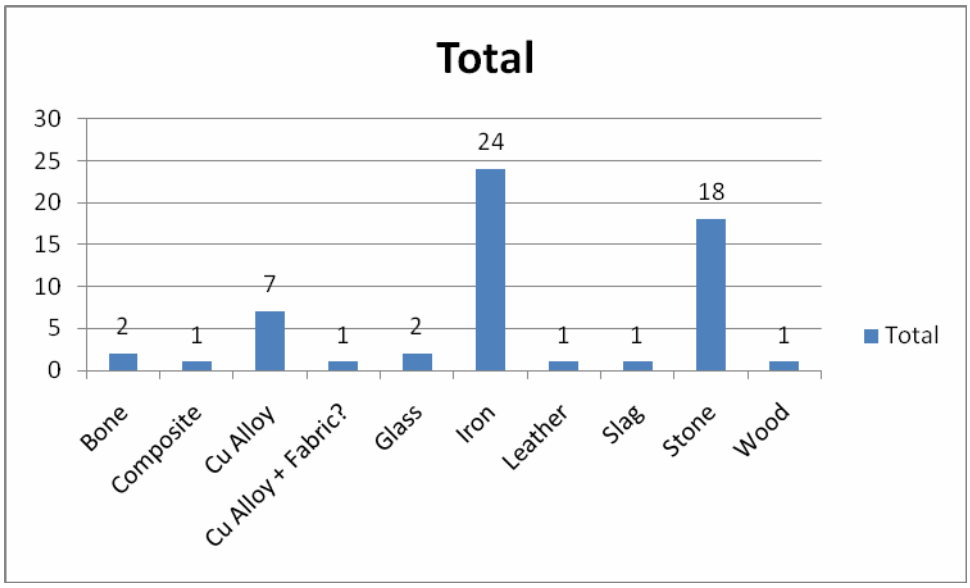
Oddstaðir

Guðrún Alda Gísladóttir

Sólveig Guðmundsdóttir Beck, stone analysis.

From the midden in Oddstaðir in Hörgárbyggð, 58 finds were registered (grouped into 50 finds numbers). The material includes small amounts of metalworking waste, iron (mostly distorted nails, roves, a hook, one complete awl and indeterminates), copper alloy (all sheets, some fastened together with a rivet), stones (one spindle whorl fragment and manuports), bone (one perforated rib and small decayed bone fragment), glass (beads), leather and wood (final two material gourps await analysis).

The number of excavated contexts were 66 and 26 of them produced finds. The finds richest context is [119] with 11 finds, described as mixed brown silty soil. From other contexts, 1-5 finds were retrieved.



Bone

Two bone finds are registered: one perforated rib, 009 from context [121], broken at both ends, function not known. The other find is a small and decayed bone piece, 016 [119], with green colour probably patina on one side.

Leather

One leather find 023 from context [131] awaits analysis.

Wood

Wood fragment, 032 from a post hole [122] awaits analysis.

Copper alloy

In total, nine artefacts of copper alloy are registered (grouped into seven finds numbers): 004 [117], 005 [119], 007 [119], 012 [119], 019 [124], 22 [131] and 50 [119]. Number 004 is a possible neeedle but the upper part is broken off. Of the rest, all, except 007 and 050 are indeterminate thin copper sheets, some riveted together, possibly vessel fragments. 007 is a sheet with textile attached that awaits analysis and 050 is a decorative dome headed mount with now broken iron fastening. Those kind of simple decorative mounts are well known through the centuries in Iceland, from Viking age and on.

Iron

Objects of this material form the largest finds category. In total 24 artefacts are registered (grouped into 20 finds units). The majority of the finds, 12 pieces, are nails and roves: 002 [103], 003 [106], 008 and 015 [119], 018 [124], 020 [122], 030 [156], 034 [122], 035 [131], 036 [132] and 037 [104]. Most of the nails are incomplete. Indeterminate iron lumps and fragments form the next largest group: 017 [123], 025 [142], 028 [152], 038 [151], 040 [153] and 041 [122]. An interesting find within the iron finds assemblage is a complete awl 014 [119] with lozenge shape cross section and both arms tapering. Awls were probably used for bone-, wood-, metal- and leatherworking but those with diamond

shaped cross section are rather considered for leatherworking than the rest.[23] There are also a possible broken buckle and a pin 039 [144]. The possible frame is partly broken but originally had an oval shape. The possible pin has a rectangular shaped cross section and tapers gently. Find no. 006 [119] is a hook, the hook end is complete but the top arm is broken, the pin or the hook is flat and has a sub-rectangular cross section. None of the artefacts can be dated by typology due to their timeless appareance.

Industrial debris

The only indication of metalworking is a slag piece 027 from context [152].

Stones

There are 19 stone finds registered (grouped into 16 finds numbers). Of those stone finds, 13 are manuports, of diverse types: 011 [122], 013 [119], 021 [130], 029 [156], 033 [141], 042 [144], 043 [151], 044 [131], 045 [137], 046 [136], 047 [120], 048 [117] and 049 [131]. Find 001 [113] is an unworked porous lava stone. One spindle whorl fragment of red sandstone 010 was present in context [122]. Parts of the base, body and one perforation wall are visible. The spindle whorl is too fragmented to be put into typological sequence, but stone whorls are mainly found in Viking age and medieval contexts in Iceland. Also one bead, 024 [134] was retrieved. it was made of red sandstone, (Elín Ósk Hreiðarsdóttir discussion, this volume).

Glass

Two glass beads were found, 026 [140] and 031 [161] (Elín Ósk Hreiðarsdóttir discussion, this volume).

Summary

All the finds come from Trial trench 1 in a midden in Oddstaðir. Written sources say that the farm was abandoned in the middle of the 18th century. The finds

[23] Ottaway, Patrick. Anglo-Scandinavian Ironwork from Coppergate, 553.

assemblage from the trial trench has no datable finds ecxept the glass beads from contexts [140 and 161], that are dated to the Viking period. The stone bead from context [134] and the spindle whorl from [122] do support Viking and early medieval periods. There are no ceramics are among the finds.

Reference

Ottaway, Patrick. Anglo-Scandinavian Ironwork from Coppergate. *The Archaeology of York. The small finds 17/6*. York Archaeological Trust for Excavation and Research, Dorset 1992.

Gásir Hinterlands 2006-2009: the pottery and glass artefacts

Gavin Lucas

The material was rapidly scanned to gain a basic understanding of its composition, nature and date and the remarks bellow should thus be treated as preliminary observations. Most of the material comes from the site of Möðruvellir (2006-2008), with two other sites (Bakki and Myrkárdalur) making up the rest (2008-2009). The material is discussed below by site and then year.

Möðruvellir (MÖÖ)

2006

The group comprises chiefly industrial whitewares, minimally or not decorated but includes some spongeware sherds (from [007]); other ceramics include a tin-glazed earthenware fragment ([007]) and some porcelain. Some clay pipe stems also occurred. The glass comprised chiefly window glass and kerosene lamp chimney fragments (especially from [008]), as well as a few fragments of vessel glass. As a whole, it is a small, and fragmented assemblage and dates broadly to the period c.1840-1920.

2007

Similar to the 2006 group, the ceramics are chiefly industrial whitewares, and include sherds from a near complete spongeware bowl ([001] and [037]), a blue shell-edged plate [042] and a larger group with a blue banded cup, green sponged bordered plate/dish, a tissue-printed vessel and one piece with a repair hole and lead rivet *in situ* [041]. Also present were clay pipe stems, a porcelain pipe mouthpiece [001] and a complete ovoid fishing weight made out of orange earthenware [041]. The glassware comprises window, lamp chimney and vessel glass. As a whole, the assemblage dates broadly to the period c.1840-1920.

2008[24]

This group is slightly different to those from the preceding years and includes more porcelain besides the more common whitewares, most of which are plain

[24] RH: The 2008 Möðrvuellir ceramics were not recovered from TR1. [500] numbers are associated with TR2a and [600] numbers with TR2b.

or minimally decorated (e.g. blue banded cup from [600], annular slipware frpm [603]). One plain soup plate was stamped with Villeroy & Bosch mark [603]. Other pottery includes a stoneware preserve jar [505] and a fragment of glazed red earthenware [500]. The glassware comprises window, lamp chimney and vessel glass. As a whole, the assemblage probably dates to the period c.1870-1920.

Bakki (BKÖ)[25]

Very little ceramics came from this site in 2008 – just a handle of a whiteware cup and blue tissue-printed whiteware plate (<003>); these can only be broadly dated to the 19th century.

Myrkárdalur (MYÖ)

The ceramics from Myrkárdalur are distinctly different to the other sites and from a much earlier period; on the other hand, the assemblages from both 2008 and 2009 are small, making it very hard to say much about their nature or date with any precision.

2008

The pottery from 2008 consists of several pieces of blue painted tin-glazed earthenware, from at least two different vessels, one a plate with spiral decoration ([198] and [105]) and a smaller, finer vessel [103]. In addition, there was a rim of a glazed red earthenware cooking pot from [114] and another brown-glazed earthenware sherd (unstrat. <39>). Glassware comprised green vessel glass and one possible mirror fragment. As a whole, the group might be tentatively dated to the 17th/18th century.

2009

Similar to 2008, this group includes a glazed red earthenware sherd and the handle from a Raeren stoneware jug, as well as clay pipe stems, and small fragments of green glass from a thin-walled vessel (cup or phial). The Raeren handle suggests an early post-medieval date – possibly late 16th/17th century.

[25] RH: Ceramics recovered from Bakki 2008 were found in the cores.

APPENDICES

Appendix I – Finds Registers (G. A. Gísladóttir)

Find register
Skuggi

Finds no.	Context No.	Material Type	Object Type	Description	Weight g	Count
8	003	Copper alloy	Indeterminate	Heavy fragment of copper. It is burnt/melted, mainly on one side which is rough and uneven, the other side is smooth. Debris of metalworking? Possibly reused vessel?	53,41	1
9	003	Bone		Whale?		1
10	012	Stone	Manuport	Spherolite	2,26	1
11	013	Iron	Nail	Broken nail shank	0,94	1
12	013	Slag	Slag	Metalworking waste	27,54	1
13	015	Slag	Slag	Metalworking waste	19	1
14	016	Stone	Manuport	1 opal and 1 quartz	8,01	2
15	017	Slag	Slag	Metalworking waste	7,81	1
16	020	Stone	Manuport	Quartz pebble	14,67	1
17	020	Stone	Manuport	Onyx	7,84	1
18	018	Ceramic	Crucible?	Curved fragment, possibly crucible fragment. Glazed/melted on the outside.	1,03	1
19	019	Slag	Slag	Metalworking waste	8,53	
20	023	Iron	Knife	Complete knife. The rear of the back slopes slightly downwards and then changes the plane more downwards towards the point. The shoulder turns upwards but the coil gently downwards . L: 123. Blade: 60 mm.	26,1	1
21	023	Stone	Manuport	Probably water worn onyx	2,82	1
22	024	Stone	Manuport	Fragment of onyx	1,05	1
23	024	Stone	Manuport	Onyx	12,22	1
24	024	Stone	Gaming piece	Complete gaming piece with domed head. Red sandstone.	5,98	1
25	024	Leather		Awaits analysis	0,5	1
26	024	Slag	Slag	Metalworking waste	8,93	1
27	026	Stone	Manuport	Coarse onyx	11,97	3
28	032	Iron	Rove	Rectangular rove	6,61	1

29	033	Cloth or bark		Awaits analysis	2,09	2
30	036	Iron	Crampon?	One arm of a crampon? Oblong, flat piece of iron that has one narrow end which is slightly bent and tapers to a point.	2,48	1
31	036	Stone	Tool	Polishing/smoothing stone? of red sandstone. Dome shaped stone with the ´base' side very smooth and convex shaped.	37,04	1
32	036	Stone	Whetstone	A well preserved whetstone fragment of the light grey Eidsborg schist type and a red sandstone pebble.	38,99	2
33	036	Iron	Rivet	Complete rivet, head is flat oval shaped, 21x25 mm in size. The rove is sub square, 15x18 mm in size. Length of shank is 10 mm.	10,43	1
34	on top of wall in se corner of trench (E)	Bone	Comb	Tooth plate, one long edge roughly broken but oxidize from iron rivet can be seen. Six teeth intact, at least two broken.	1,02	1
35	038	Iron	Nail?	Broken shanks	0,46	1
36	038	Glass	Bead	Simple, wounded, dark blue glass bead. The bead is complete and in good condition.	0,29	1
37	038	VOID	VOID	VOID	0,36	
38	039	Iron	Nail	Broken nail shank	0,54	1
39	039	Iron	Nail/rivet	Badly corroded nail head or a rove. Seem to have been square in shape.	3,68	1
40	039	Iron	Nail	Two nails, one shank with fine point but broken head. The other has flat probably oval shaped off centered head, bent and incomplete shank.	9,22	1
41	040	Stone	Manuport	Jasper	7,94	2
42	040	Iron	Indeterminate	Indeterminate iron fragments of diverse shapes	18,64	5
43	043	Iron	Nail	Nail with flat circular head and broken shank	3,13	1
44	043	Iron	Fitting?	Thin sub rectangular shaped iron plate.	4,76	1

45	048	Stone	Whetstone	A well preserved whetstone of the light grey Eidsborg schist type	10,53	1
46	046	Iron	Nail?	Nail shank in two conjoining pieces. The cross section is square and the point fine.	1,58	1
47	008	Iron	Fitting?	Irregularly shaped flat and bent iron piece. Broken through perforation at one edge.	10,45	1
48	003	Stone	Manuport	Green siltstone	2,5	2
49	016	Iron	Nail?	Nail shank?	0,52	1
50	016	Slag	Slag	Metalworking waste	66,43	1
51	021	Stone	Manuport	2 onyx and 4 quartz pebbles.	172,06	6
52	021	Iron	Indeterminate	Lumps, probably one rove and one shank of a nail	29,8	3
53	025	Stone	Manuport	3 stones, opal, quartz and onyx	11,64	4
54	025	Stone	Bead	Reddish-brown bead of sandstone. About half of the bead was recovered. The bead is very irregular but its shape is roughly oval.	0,98	1
55	035	Iron	Nail?	Shank fragment, sub-rectangular cross section.	0,89	1
56	035	Bone	Pin	Complete headless bone pin, polished smooth.	5,44	1
57	035	Iron	Rove?	Flat sub rectangular piece	4,72	1
58	036	Stone	Manuport	Quartz pebble	0,84	1
59	u/s	Stone	Manuport	Brown opal	1,49	1
60	038	Glass	Bead	Grayish glass bead, heavily damaged by glass disease	0,5	1
61	039	Iron	Nail	Nail shank broken in two conjoining pieces. Sub rectangular cross section and fine point.	1,87	1
62	051	Glass	Bead		0,15	1
63	051	Iron	Indeterminate	Oval or circular shaped flat iron piece.	14,65	1
64	053	Stone	Gaming piece	Domed shaped stone with knob on top and hole in the base. Made of soft grey sandstone.	7,65	1
65	D	Stone	Gaming piece	Complete gaming piece with pointed head. Roughly worked of red sandstone.	4,83	1
66	038	Slag	Slag	Metalworking waste	95,98	1
67	038	Slag	Slag	Metalworking waste	3,66	1

68	022	Slag	Slag	Metalworking waste	12,52	1
69	038	Slag	Slag	Metalworking waste	4,36	1
70	021	VOID	VOID	Porous lava stone		
71	044	Iron	Nail/rivet	Four broken nail shanks and one square rove.	30,86	5
72	036	Stone	Fire cracked basalt stone	Unworked fire cracked stone in 3 pieces	190,11	1
73	033	Stone	Whetstone	A well preserved whetstone fragment of the light grey Eidsborg schist type	29,72	1
74	036	Bone	Pin	Shank fragment of a bone pin, head an point roughly broken off. Unusual expansion on the shank (roughly in the middle), gives the shank almost a lozenge shaped appearance.	2,14	1
75	043	Iron	Indeterminate	Iron lump	2,61	1
76	017	Bone	Unworked bone	Small, burnt bone fraction.	1,05	1
77	044	Slag	Slag	Metalworking waste	20,25	1
78	040	Slag	Slag	Metalworking waste	7,54	1
79	043	Slag	Slag	Metalworking waste	1,44	1

Table 1 – SKÖ09 Artifact Register

Finds register

Myrkárdalur

Finds no.	Context No.	Material Type	Object Type	Description	Weight g	Count
1	200	Iron	Nail	Iron nail with large sub-rectangular head and square sectioned shank.	13,8	1
2	204	Iron	Staple?	Narrow, oblong piece of metal (iron), bent on both ends. One end has a relatively fine point, broken staple?	1,27	1
3	205	Iron?	Nail?	Missing		1
4	206	Leather?		Awaits analysis		1
5	206	Iron	Nail?	Missing		1
6	210	Iron	Nail	Nail shank, broken head and tip, oval cross section.	3,37	1
7	211	Iron	Nail	Nail with head and bent shank and broken tip. The head is flat, sub-rectangular, the shank is cross section is rectangular.	4,68	1
8	216	Iron	Nail	Headless nail with bent shank, square cross section.	2,19	1
9	216	Glass			0,19	1
10	221	Ceramic	Clay pipe		3,78	1
11	200	Iron	Object	A) Small chisel? Upper part flat, cross section round on top but sub-rectangular near the square cut point. B) Rove?	8,34	2
12	201	Iron	Knife	Knife with broken tang. The knife blade itself is complete, the shoulder turns littlebit upwards from the tang but the back is straight or very gently sloping toward the tip which is curved. The coil slopes downwards towards the cutting edge with abrupt change of plane.	12,18	1
13	202	Stone	Manuport	Onyx pebble and quartz pebble	15,2	2

14	203	Iron	Nail	Nail shank, broken at both ends.	2,59	1
15	203	Ceramic	Pottery		14,81	1
16	204	Stone	Manuport	Quartz, water worn.	1,09	1
17	206	Iron	Nail	L-headed one piece complete nail.	3,84	1
18	207	Iron	Nail	Three nails and nail shanks and one fragment, indet.	15,97	4
19	208	Iron	Nail	Nail with partly broken head and broken shank with sub-rectangular cross section. The head is flat sub-rectangular shaped.	8,8	1
20	212	Iron	Knife?	Possibly knife blade with broken tang, badly corroded.	5,58	1
21	212	Glass			0,43	1
22	212	Copper alloy	Nail	Tack made of rolled sheets, flat head partly broken.	0,71	1
23	217	Iron	Nail?	Shank of a nail? Cross section is sub-rectangular, broken at both ends.	4,37	1
24	219	Iron	Nail?	Very corroded iron object, possibly two nail shanks, bent, corroded together.	8	1
25	221	Iron	Needle	Complete needle, very corroded.	2,75	1
26	211	Iron	Miscellaneous	A) Probably nail shank bent by the point and headless. B) Three iron fragments, indet.	6,09	4
27	201	Stone	Whetstone	An end and middle piece of a medium sized whetstone of the light grey Eidsborg schist type	33,59	1
28	205	Iron	Indet	Unidentifiable piece of iron.	5,17	1
29	200	Ceramic	Clay pipe		1,71	1
30	200	Ceramic	Pottery		1,65	3
31	200	Stone	Bead?	Reddish-brown sandstone bead. The bead most likely an Icelandic production but is unusually well made and polished. Only a part of the bead was recovered. It is a rounded bead with a melon	1,56	1

				shape.		
32	200	Glass			0,13	1
33	200	Stone	Manuport	Quartz fragment probably opal	1,02	1
34	200	Stone	Manuport	Opal fragment.	0,8	1
35	200	Stone	Manuport	Red jasper	1,03	1
36	200	Glass			0,2	1
37	201	Ceramic	Claypipe		1,1	1
38	201	Stone	Manuport	Onyx pebble	4,83	2
39	201	Stone	Manuport	Brown jasper.	1,69	1
40	200	Stone	Manuport	Probably limonite fragment.	0,7	1

Table 2 – MYÖ09 Artifact Register

Oddstaðir
Find register

Finds no.	Context No.	Material Type	Object Type	Description	Weight g	Count
1	113	Stone	Unworked stone	Lava stone	38,99	1
2	103	Iron	Nail?	Distorted nail shank? Bent in half circle, tapers to one end.	1,73	1
3	106	Iron	Nail?	Iron nail, deformed by corrosion, head and broken shank.	4,31	1
4	117	Cu Alloy	Pin/needle?	Pin, rectangular in cross section tapering to a point. The top end broken off. Pin or a needle?	0,8	1
5	119	Cu Alloy	Indeterminate	Small sheet piece	0,11	1
6	119	Iron	Hook	Hook, the loop complete but the other arm broken. Sub-rectangular cross section.	3,24	1
7	119	Composite		Copper alloy and textile remains. Awaits further analysis.		1
8	119	Iron	Nail?	Broken nail shank? Irregularly rectangular cross section.	0,65	1
9	121	Bone	Worked bone	Rib broken at both ends, with off centre perforation near one end. Diameter of the perforation is 3 mm.	3,36	1
10	122	Stone	Spindle whorl	Fragment of red sandstone, worked sides surviving. Parts of base, edge and convex side and side of the centre perforation. Spindle whorl fragment.	5,03	1
11	122	Stone	Manuport	Quartz pebble	0,8	1
12	119	Cu Alloy	Indeterminate	Small riveted sheet, possibly one edge complete, other broken/cut.	0,88	1
13	119	Stone	Manuport	Pebble, needs Id	2,16	1
14	119	Iron	Awl	A) Complete awl with diamond shaped cross section. Two thin tapering arms roughly of same length. B) Flat iron piece with one broken end the other round.	5,85	2
15	119	Iron	Nail?	Nail shank? Broken at both ends, rectangular cross section, tapers near one end.	1,04	1

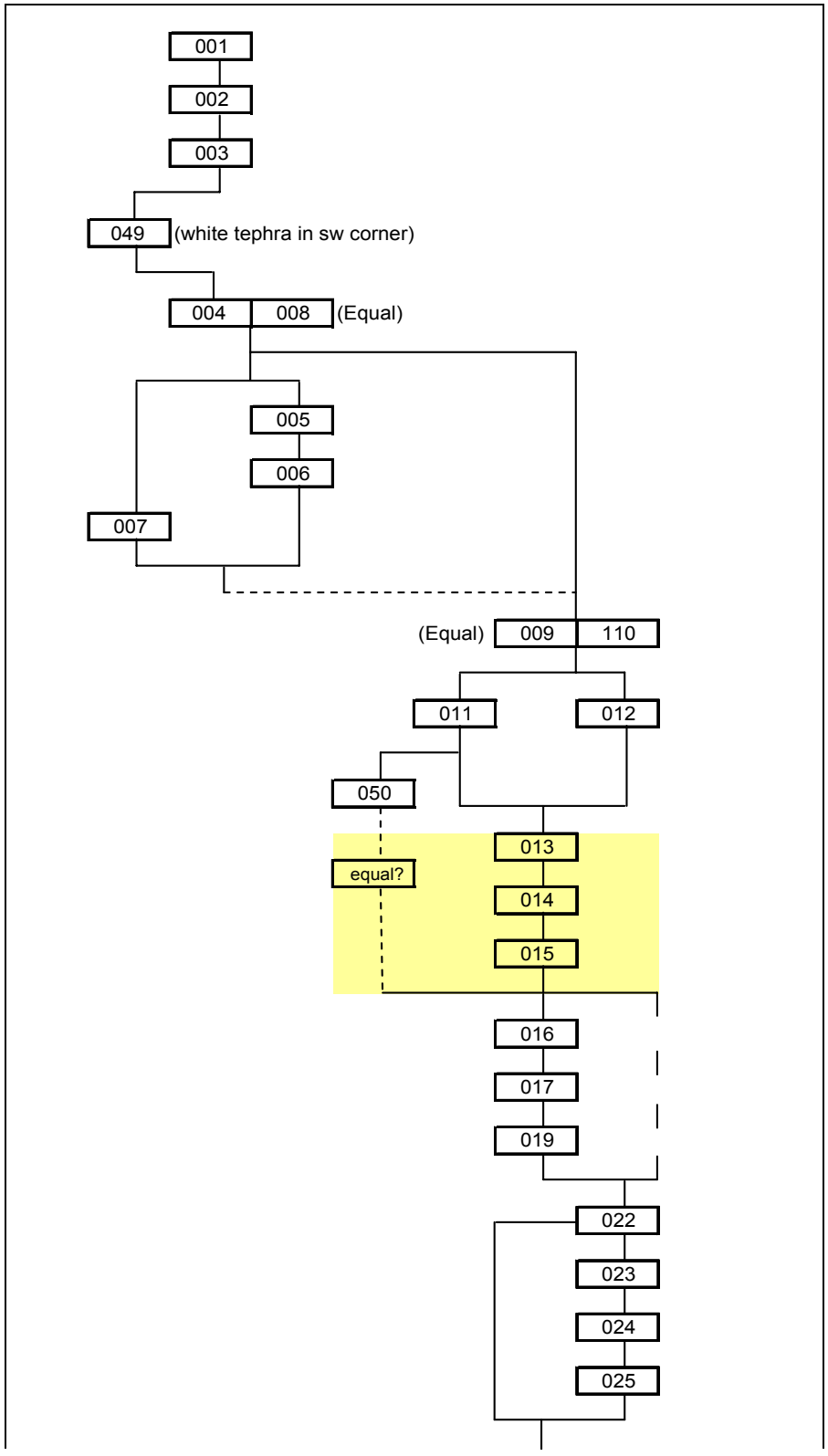
16	119	Bone	Indeterminate	Decayed bone fragment with green color on one side, patina. Indet.	0,49	1
17	123	Iron	Indeterminate	Iron bar bent in half circle, broken at both ends. One side flat the other convex, very corroded.	5,21	1
18	124	Iron	Nail?	Nail shank? Tapers to one end.	2,17	1
19	124	Cu Alloy	Indeterminate	Riveted sheet, small and broken, indet.	0,63	1
20	122	Iron	Rove	Square shaped complete rove with oxidized perforation in the middle.	0,71	1
21	130	Stone	Manuport	Quartz pebble	1,84	1
22	131	Composite	Mount	Decorative mount, plain dome headed with now broken iron fastening.	1,56	1
23	131	Leather		Awaits analysis		1
24	134	Stone	Bead	Reddish-brown sandstone bead. The bead is fairly well made and polished, with flat ends, even surface and well made hole. The hole of the bead is even and straight through	1,69	1
25	142	Iron	Indeterminate	Small corroded iron fragment, indet.	1,07	1
26	140	Glass	Bead	Wounded, decorated bead of a very unusual sort. The bead is rectangular with a wide hole. On each of the four sides was a cold cut white/light coloured inlay of glass, shaped as a diamond.	0,36	1
27	152	Slag	Slag	Industrial waste	42,58	1
28	152	Iron	Indeterminate	Two iron lumps, indet.	11,27	2
29	156	Stone	Manuport	Pebble, needs analysis	31,92	1
30	156	Iron	Nail	Nail shank with rectangular cross section.	3,44	1
31	161	Glass	Bead	Complete, blue bead of simple type. It is wounded, undecorated and in good condition.	0,24	1
32	122	Wood		Awaits analysis		1
33	141	Stone	Manuport	Green jasper stone.	3,07	1
34	122	Iron	Nail	Nail with flat oval, off centered head and broken shank.	2,51	1

35	131	Iron	Nail	A) Complete nail with flat circular head and evenly tapering shank. B) Nail head with square rounded corners. Shank broken off.	4,76	2
36	132	Iron	Rove?	Rectangular shaped rove?, broken in half.	1,35	1
37	104	Iron	Nail?	Possible nail shank, or pin? Tapers towards one end.	1,32	1
38	151	Iron	Indeterminate	Flat bended iron object, broader at one end, broken at both ends.	8,81	1
39	144	Iron	Buckle?	A) Flat oval-circular shaped frame, one side broken off. In two conjoining pieces. B) Pin from buckle? Rectangular too triangular shaped cross section.	10,06	2
40	153	Iron	Indeterminate	Rectangular shaped iron lump	6,66	1
41	122	Iron	Indeterminate	Iron lump, indet.	2,11	1
42	144	Stone	Manuport	Unworked basalt and zeolithe stones.	52,64	2
43	151	Stone	Manuport	Polished basalt stone.	6,39	1
44	131	Stone	Manuport	Pebble, awaits analysis	11,41	1
45	137	Stone	Manuport	Pebble, awaits analysis	7,4	1
46	136	Stone	Manuport	Pebble, awaits analysis	6,37	1
47	120	Stone	Manuport	Quartz pebble	0,47	1
48	117	Stone	Manuport	Quartz pebble	0,55	1
49	131	Stone	Manuport	Two soft green stones, needs id. +	2,61	2
50	119	Cu Alloy	Indeterminate	Three pieces of Cu alloy sheets. The biggest piece is a thin sheet that has one long side regularly cut, the opposite side is ragged. The others are small with cut sides.	2,03	3

Table 3 - ODÖ09 Artifact Register

Appendix II – Harris Matrices (H. M. Roberts & R.H.)

SKÖ 09 TR1 - Harris Matrix



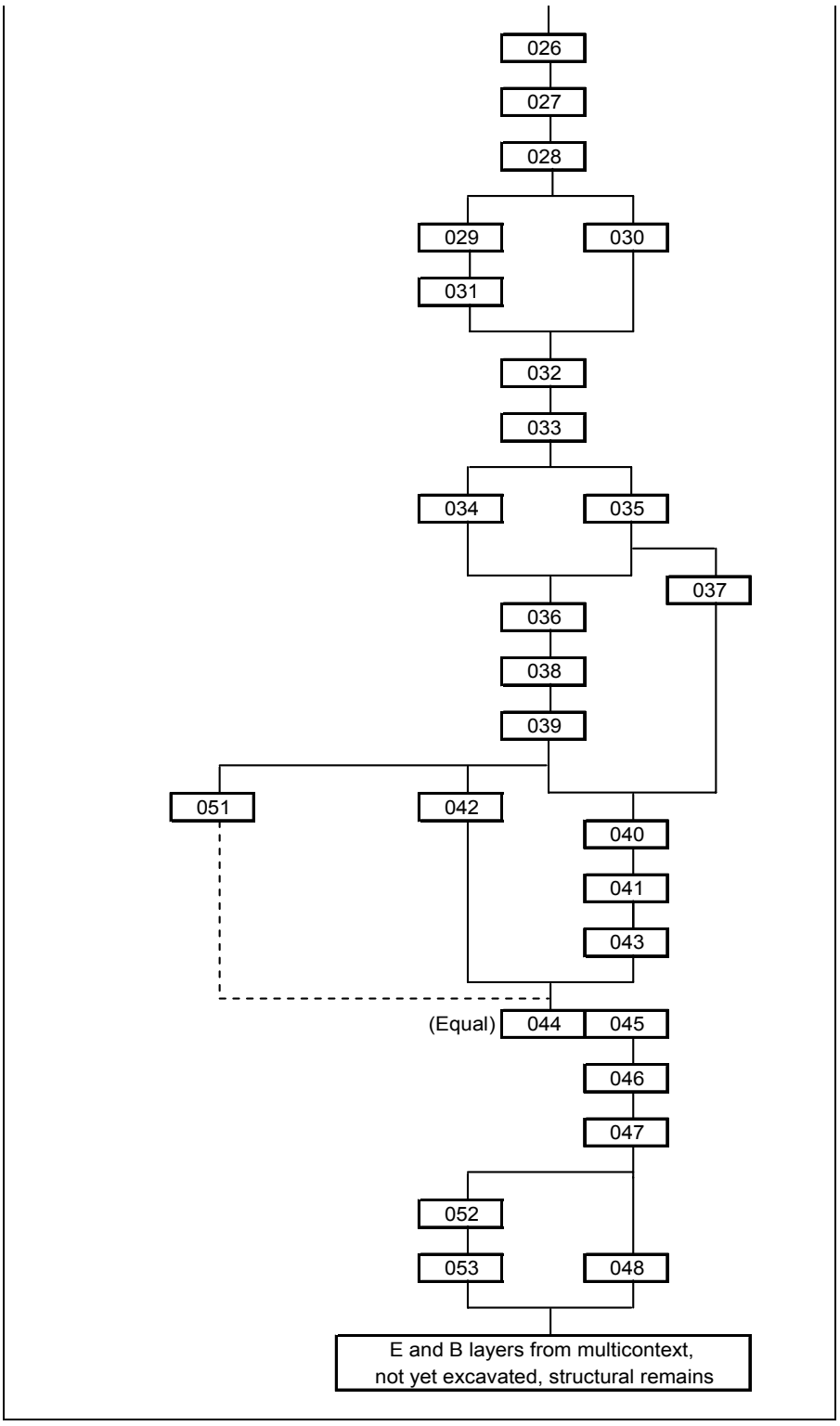


Figure 1 – Skuggi 09 TR1 - Harris Matrix

MYÖ 09 TR2 - Harris Matrix

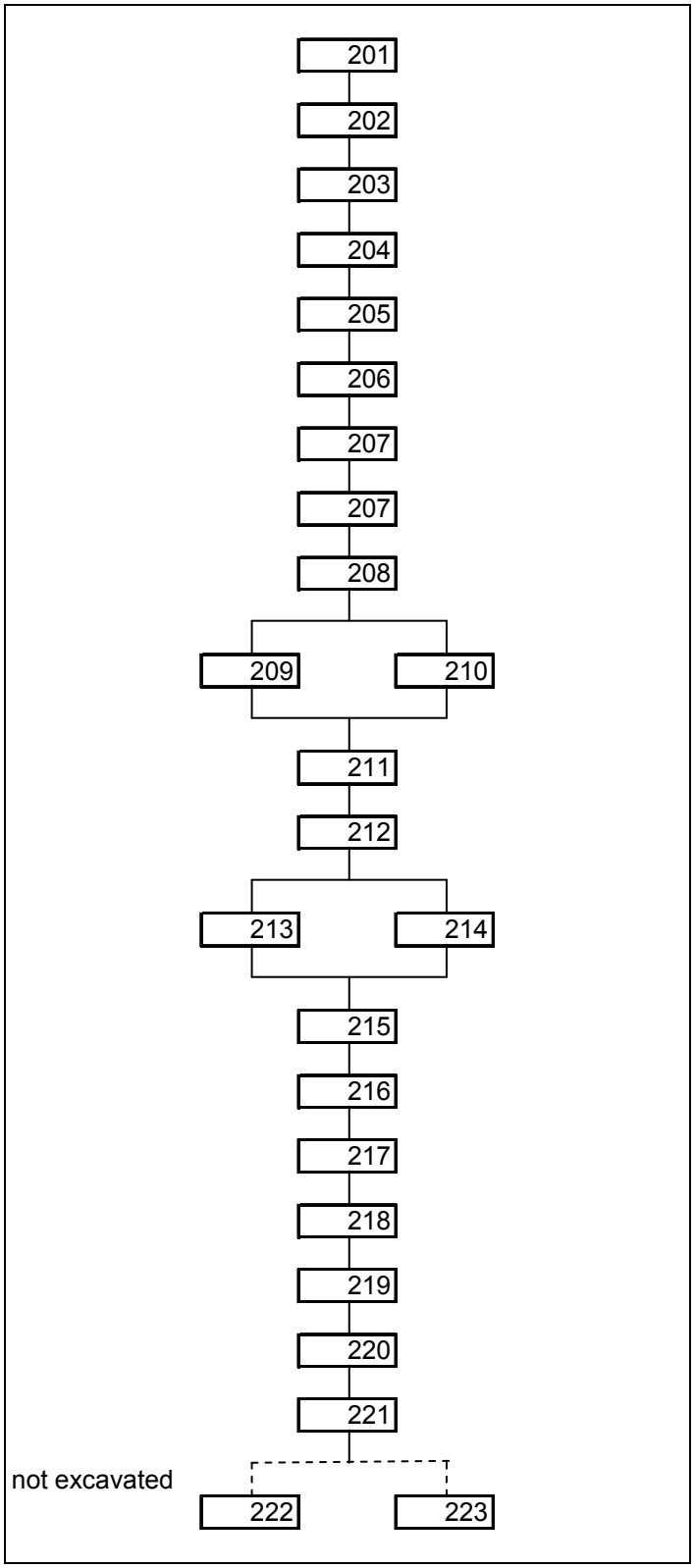
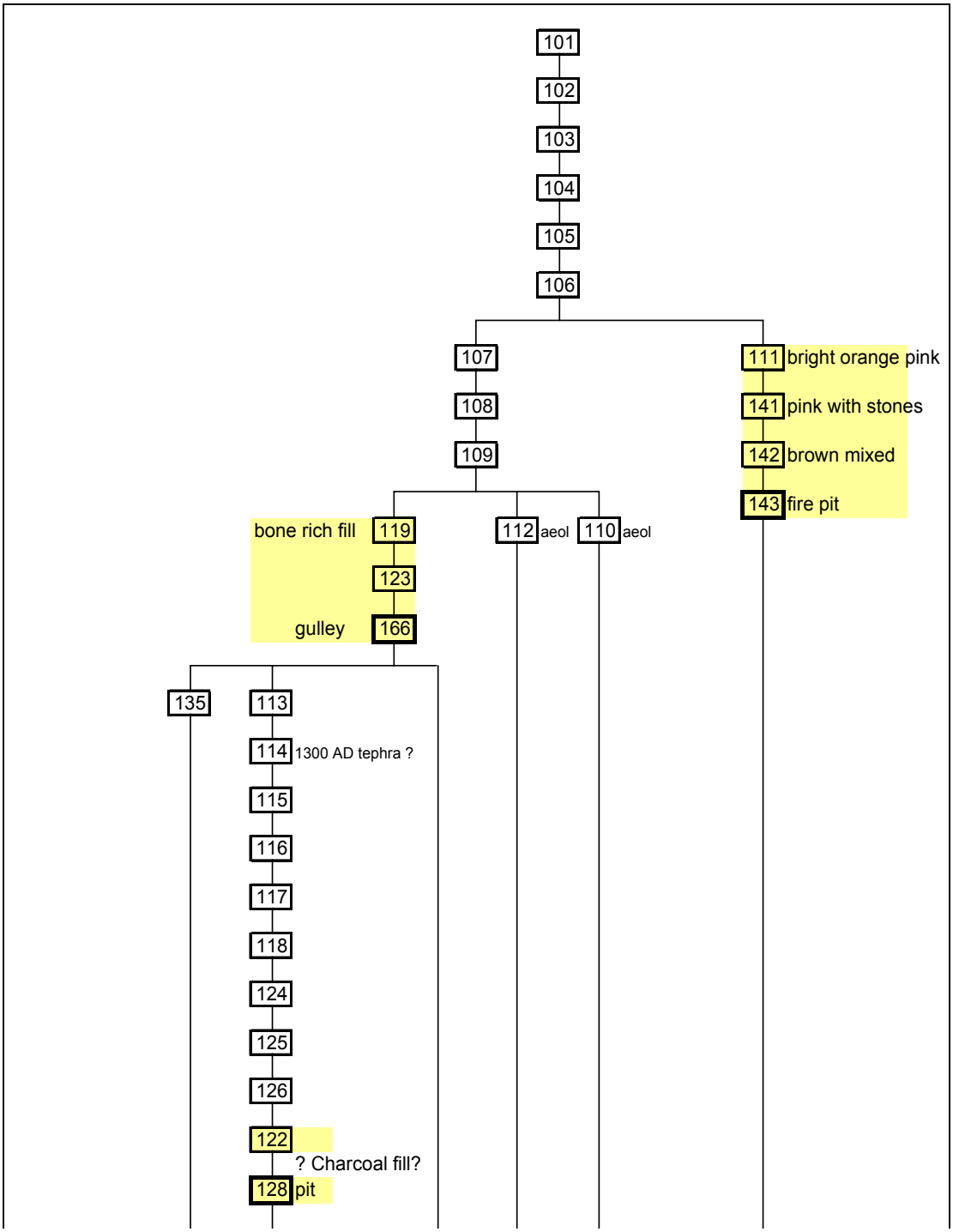


Figure 2 – Myrkárdalur TR2 Harris Matrix

ODÖ 09 TR1 - Harris Matrix



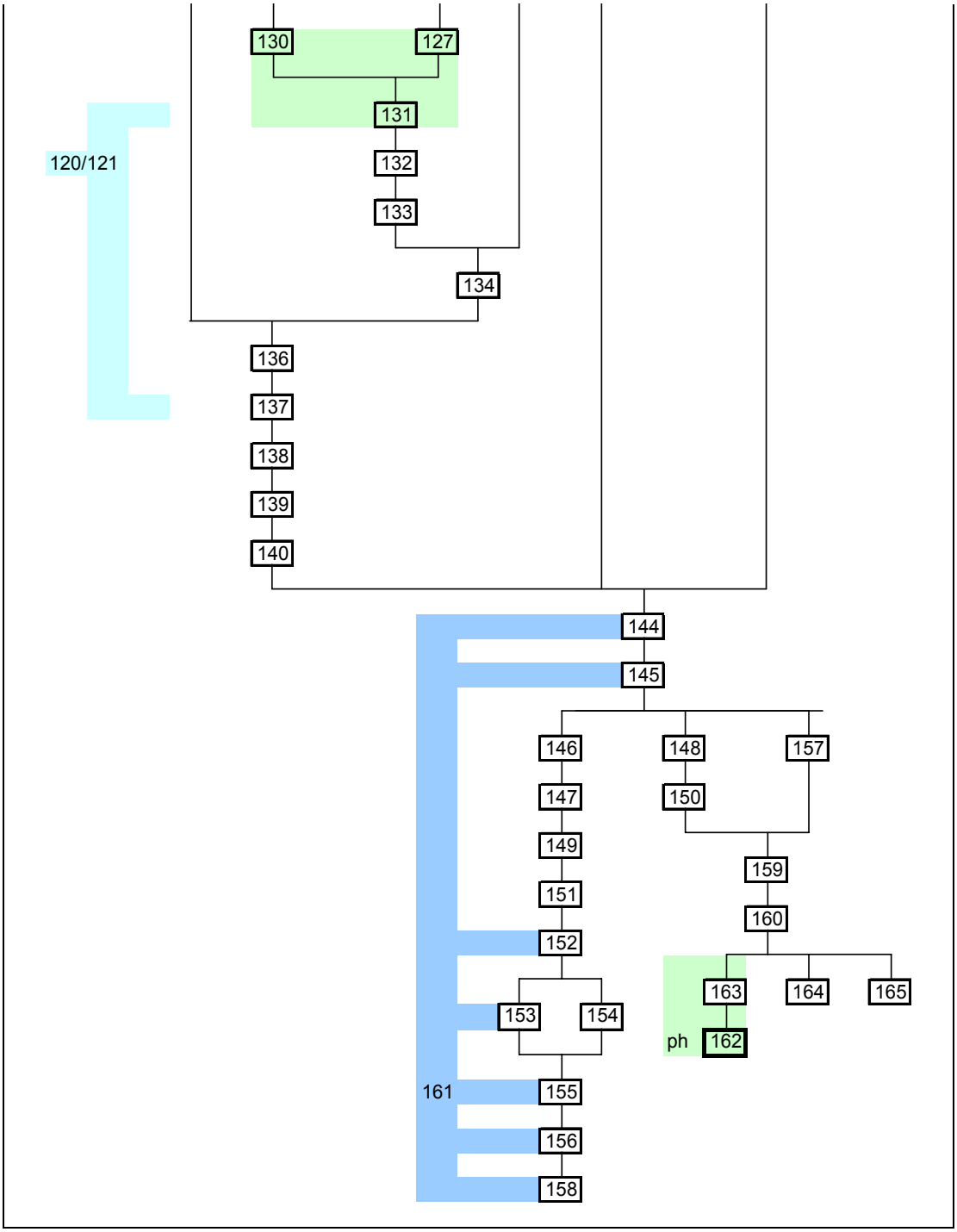


Figure 3 – Oddstaðir TR1 Harris Matrix

Appendix III – Excavation Data

2009 Skuggi Öskuhóll (SKÖ) data

SKÖ 09 Context Register					
Context Number	Area	Type	Description/Information	Date/Time dd.mm.yy.	ID
001	TR1	D	topsoil	21.8.2008	RH/ ÞP
002	TR1	D	grey-blue tephra - right under topsoil	21.8.2008	RH/ ÞP
003	TR1	D	bone & charcoal rich midden dump under 002	21.8.2008	RH/ ÞP
004	TR1	D	orange/black midden dump under 003	22.8.2008	RH/ ÞP
005	TR1	D	brown/pink deposit w. Little charcoal	22.8.2008	RH/ ÞP
006	TR1	D	mixed deposit, turf/debris and silt	22.8.2008	RH/ ÞP
007	TR1	D	dump , charcoal % bone rich	22.8.2008	RH/ ÞP
008	TR1	D	mixed light reddish brown dump w. Charcoal	9.6.2009	VF/ RH
009	TR1	D	pink peat ash w. Charcoal and bone	9.6.2009	AK
010	TR1	D	peat ash (orange/pink) w. Charcoal and bone	9.6.2009	AK
011	TR1	D	bone rich midden dep w. Occasional charcoal under (010)	10.6.2009	SD, RH
012	TR1	D	grey brown wood ash dump	10.6.2009	ÞP
013	TR1	D	mottled turf collapse deposit	10.6.2009	VF
014	TR1	D	mixed peat , turf, and charcoal deposit	10.6.2009	AK
015	TR1	D	blonde brown and dark brown turf collapse w. Charcoal	10.6.2009	VF
016	TR1	D	pink peat ash and black charcoal midden	11.6.2009	ÞP
017	TR1	D	turf deposit, mixed collapse (017 and 019 are probably same context)	11.6.2009	RH
018	TR1	D	mixed wood and peat ash deposit	11.6.2009	JP
019	TR1	D	black brown mixed deposit (017 and 019 are probably same context)	11.6.2009	SB
020	TR1	D	peat ash deposit	11.6.2009	JP
021	TR1	D	peat ash fill	11.6.2009	JP
022	TR1	D	wood ash charcoal mix (see 024)	11.6.2009	JP
023	TR1	D	mixed dark brown spread	11.6.2009	RH
024	TR1	D	grey pink midden layer	11.6.2009	AK
025	TR1	D	wood ash charcoal mix (see 022)	12.6.2009	AK
026	TR1	D	light brown deposit	12.6.2009	JP
027	TR1	D	mottled orange-brown mixed turf dep	12.6.2009	AK

028	TR1	D	grey pink ash deposit- mixed	12.6.2009	AK
029	TR1	D	lensed ash and charcoal deposit	12.6.2009	VF
030	TR1	D	mixed ash and charcoal deposit/w charcoal flecks incl.	12.6.2009	VF
031	TR1	D	wood ash deposit	15.6.2009	SB
032	TR1	D	mixed orange brown turf deposit	15.6.2009	VF
033	TR1	D	Peat ash deposit with charcoal inclusions	15.6.2009	VF
034	TR1	D	orange brown turfy deposit	15.6.2009	VF
035	TR1	D	medium brown mixed deposit w charcoal, bones	15.6.2009	SB
036	TR1	D	Peat ash deposit with charcoal inclusions	16.6.2009	VF
037	TR1	D	mottled dark orange brown turf deposit w. Charcoal inclusions	16.6.2009	VF
038	TR1	D	peat ash dump (fill?) - very mottled w charcoal, woodash, turf debris	16.6.2009	RH
039	TR1	D	mottled peat and wood ash dump /fill under (038)	16.6.2009	AK
040	TR1	D	mixed peat ash deposit w. Charcoal under (039)	16.6.2009	VF
041	TR1	D	grey brown mottled turf and ash mix under (040)	16.6.2009	RH
042	TR1	D	turf collapse	16.6.2009	RH
043	TR1	D	mottled peat ash and wood ash dump/fill	17.6.2009	RH
044	TR1	D	mixed ash dump	17.6.2009	HMR
045	TR1	D	midden/peat ash	18.6.2009	HMR
046	TR1	D	mixed woodash dump	18.6.2009	VF
047	TR1	D	turf collapse w peat ash	18.6.2009	VF
048	TR1	D	pale pink peat and wood ash	18.6.2009	NM
049	TR1	D	faint creamy tephra layer	24.6.2009	SIG
050	TR1	D	turf collapse spread w white tephra inclusion	25.6.2009	RH
051	TR1	D	turf collapse	2.7.2009	JP
052	TR1	D	very mixed fill (?) turf collapse and wood ash w bone rich under (047)	3.7.2009	RH
053	TR1	D	turf collapse on inside of Northern Wall	6.7.2009	JP

Table 1 – SKÖ09 Context Register

SKÖ 09 Sample Register						
Bag. No	Area	Context	sampled for	Description/ Information	Date/ dd.mm.yy	ID
8	TR1	009	flotation/archaeobotany	orange /pink peat ash layer	9.6.2009	ÞP
9	TR1	014	chemical analysis	mixed turf collapse	9.6.2009	RH
10	TR1	016	flotation/archaeobotany	pink/black midden dep	11.6.2009	ÞP
11	TR1	033	flotation/archaeobotany	peat ash w charcoal	15.6.2009	SB
12	TR1	036	flotation/archaeobotany	peat ash w charcoal	16.6.2009	AK
13	TR1	038	flotation/archaeobotany	peat ash dump	17.6.2009	NM
14	TR1	043	flotation/archaeobotany	mottled peat ash dump	17.6.2009	RH
15	TR1	044	flotation/archaeobotany	mottled mixed ash dump	17.6.2009	RH/ SIG
16	TR1	048 to 040	archaeoentomology		22.6.2009	VF
´17	TR1	035 to 014	archaeoentomology		22.6.2009	VF
18	TR1	012 to 003	archaeoentomology		22.6.2009	VF
19	TR1	017 extension	flotation/archaeobotany	turf deposit - mixed collapse	26.6.2009	JP
21	TR1	036 extension	chemical analysis		1.7.2009	JP
20	TR1	022	flotation/archaeobotany	wood ash and charcoal deposit	29.6.2009	RH
22	TR1	036 extension	flotation/archaeobotany	peat ash deposit	1.7.2009	JP
23	TR1	036 extension	analysis	birch (?) bark	1.7.2009	JP
24	TR1	036 extension	analysis	pieces of charcoal	1.7.2009	JP
26	TR1	046 extension	flotation/archaeobotany	mixed woodash dump	2.7.2009	RH
27	TR1		Micromorphology/chemical analysis	sample of floor layer	3.7.2009	RH
28	TR1		flotation/archaeobotany	sample of floor layer	7.7.2009	RH

Table 2 – SKÖ09 Sample Register

SKÖ 09 Bone Register					
Bag. No	Area	Context	Description Information	Date/ dd.mm.yy	ID
6	TR1	008	bones from mixed light brown dump	9.6.2009	VF
7	TR1	009	bones from pink peat ash dump	10.6.2009	VF
8	TR1	010	bones from peat ash & charcoal dump	10.6.2009	VF

9	TR1	011	bones from peat ash & charcoal dump	10.6.2009	VF
10	TR1	012	bone from woodash dump	10.6.2009	VF
11	TR1	013	bones from midden dump	10.6.2009	VF
12	TR1	014	bones from mixed peat ash & charcoal dump	10.6.2009	VF
13	TR1	015	light brown and dark brown dep w turf collapse	10.6.2009	RH
14	TR1	001	cleaning 2009 (001 used twice in 2009 - combine bags)	10.6.2009	RH
15	TR1	003	bone and charcoal rich midden	10.6.2009	RH
16	TR1	008	mixed light reddish dump	10.6.2009	RH
17	TR1	016	bones from pink peat ash midden	11.6.2009	JP
18	TR1	017	turf deposit - mixed collapse w. bones	11.6.2009	JP
19	TR1	018	bones from mixed wood and peat ash dep	11.6.2009	JP
20	TR1	019	bones from black brown mixed deposit	11.6.2009	JP
21	TR1	020	bones from peat ash deposit	11.6.2009	JP
22	TR1	001	bones from topsoil - extension (001 used twice in 2009 - combine bags)	11.6.2009	JP
23	TR1	022	bones from wood ash and charcoal mix	11.6.2009	JP
24	TR1	025	bones from peat and wood ash deposit	12.6.2009	NM
25	TR1	026	bones from light brown deposit	12.6.2009	JP
26	TR1	027	bones from mixed turf	12.6.2009	JP
27	TR1	028	bones from grey/pink ash deposit	12.6.2009	JP
28	TR1	029	bones from lensed ash and charcoal deposit	12.6.2009	JP
29	TR1	030	bones from wood ash deposit	15.6.2009	JP
30	TR1	031	Bones from mixed turf 0 orange brown deposit	15.6.2009	JP
31	TR1	032	bones from orange brown turf	15.6.2009	JP
32	TR1	033	bones - peat ash w. charcoal deposit	15.6.2009	NM
33	TR1	036	bones from peat ash deposit	16.6.2009	JP
34	TR1	037	bones from mottled turf dep	16.6.2009	JP
35	TR1	038	bones from peat ash dump	16.6.2009	JP
36	TR1	039	bones from 039	17.6.2009	VF
37	TR1	040	bones from mixed peat ash	17.6.2009	SIG
38	TR1	041	bones f. grey brown mottled turf	17.6.2009	SIG
39	TR1	042	bones from turf collapse	17.6.2009	SIG
40	TR1	043	bones from 043 peat ash dep	17.6.2009	SIG
41	TR1	044	mixed ash dump	17.6.2009	NM
42	TR1	045	bones from peat ash/midden	18.6.2009	VF
43	TR1	046	bones from mixed wood ash dump	18.6.2009	VF
44	TR1	047	bones from turf collapse	18.6.2009	VF
45	TR1	048	pale pink peat and wood ash	18.6.2009	NM
46	TR1	050	tuff collapse spread w. white tephra	26.6.2009	JP
47	TR1	021	peat ash fill/deposit	26.6.2009	JP
48	TR1	035	medium brown mixed deposit	30.6.2009	JP
49	TR1	051	turf collapse	2.7.2009	JP
50	TR1	052	very mixed deposit/fill	3.7.2009	JP

51	TR1	053	turf collapse from inside n. wall	6.7.2009	JP
52	TR1	023	mixed dark brown spread	9.7.2009	JP
53	TR1	024	grey pink midden layer	9.7.2009	JP
54	TR1	034	orange brown turf deposit	9.7.2009	JP
55	TR1	09/10	lumped the two layers together for this - can lump all the bags	9.7.2009	JP
56	TR1	u/s		9.7.2009	JP
57	TR1	u/s	collapsed roof deposit (turf collapse from roof that has not been excavated yet)	9.7.2009	JP

Table 3 – SKÖ09 Bone Register

2009 Myrkárdalur Öskuhóll (MYÖ) data

MYÖ 09					
Context Number	Area/ Trench	Type	Description/Information	Date/Time dd.mm.yy.	ID
200	2	D	cleaning of topsoil	15.6.2009	RH
201	2	D	gray brown wood ash - mixed soil deposit	15.6.2009	AK
202	2	D	grey-black ash (woodash) w reddish brown lense	15.6.2009	AK
203	2	D	light grey and brown mottled deposit (wood ash in it)	15.6.2009	RH
204	2	D	grey wood ash deposit w turf debris	15.6.2009	AK
205	2	D	brown grey mixed midden deposit	16.6.2009	ÞP
206	2	D	peat ash mixed midden deposit	16.6.2009	ÞP
207	2	D	mixed woodash midden dump	16.6.2009	ÞP
208	2	D	dark grey woodash midden dep	16.6.2009	ÞP
209	2	D	pink brown peat ash dep	16.6.2009	ÞP
210	2	D	grey wood ash deposit w turf debris	16.6.2009	HMR
211	2	D	light pink brown peat ash dep	16.6.2009	ÞP
212	2	D	mixed peat and woodash deposit	16.6.2009	ÞP
213	2	D	yellow brown mixed turf midden	17.6.2009	AK
214	2	D	mottled grey peat and wood ash mix	17.6.2009	JP
215	2	D	red turf and peat ash mix	17.6.2009	AK
216	2	D	reddish grey ash deposit	17.6.2009	AK
217	2	D	mottled grey ash deposit	18.6.2009	AK
218	2	D	red mottled ash deposit	18.6.2009	AK
219	2	D	red gray mottled ash deposit	19.6.2009	AK
220	2	D	gray and light brown mottled ash deposit	19.6.2009	AK
221	2	D	mixed grey ash deposit	19.6.2009	AK

Table 4 – MYÖ09 Context Register

MYÖ 09 Sample Register						
Bag. No	Area	Context	sampled for	Description/ Information	Date/ dd.mm.yy	ID
1	TR2	220	flotation/ archaeobotany	gray and light brown mottled ash deposit	19.6.2009	RH

Table 5 – MYÖ09 Sample Register

MYÖ 09 Bone Register						
Bag. No	Area	Context	Quant of Bags	Description Information	Date/ dd.mm.yy	ID
1	TR2	200	2	cleaning of topsoil	15.6.2009	JP
2	TR2	201	2	grey brown wood ash	15.6.2009	JP
3	TR2	202	1	grey black ash w reddish brown lense	15.6.2009	JP
4	TR2	203	1	light grey and brown mottled dep	15.6.2009	JP
5	TR2	204	1	grey wood ash deposit w turf debris	15.6.2009	JP
6	TR2	205	1	brown grey mixed midden deposit	15.6.2009	JP
7	TR2	206	1	peat ash mixed midden dep	15.6.2009	JP
8	TR2	207	1	mixed woodash midden dump	16.6.2009	JP
9	TR2	208	1	dark grey woodash midden dep	16.6.2009	JP
10	TR2	209	1	pink brown peat ash dep	16.6.2009	JP
11	TR2	210	1	grey wood ash	16.6.2009	JP
12	TR2	211	1	light pink brown peat ash dep	16.6.2009	JP
13	TR2	212	1	mixed peat ash and wood ash dep	16.6.2009	JP
14	TR2	213	1	yellow brown mixed turf midden	17.6.2009	JP
15	TR2	214	1	mottled grey peat and wood ash mix	17.6.2009	JP
16	TR2	215	1	red turf and peat ash mix	17.6.2009	JP
17	TR2	216	1	reddish grey ash deposit	17.6.2009	JP
18	TR2	217	1	mottled grey ash deposit	17.6.2009	JP
19	TR2	218	1	red mottled ash deposit	18.6.2009	JP
20	TR2	219	1	red grey mottled ash deposit	18.6.2009	JP
21	TR2	220	1	grey and light brown mottled ash layer	19.6.2009	JP
22	TR2	221	1	mixed grey ash deposit	19.6.2009	JP

Table 6 – MYÖ09 Bone Register

2009 Oddstaðir (ODÖ) data

ODÖ 09 Context Register					
Context Number	**Area**	**Type**	**Description/Information**	**Date/Time dd.mm.yy.**	**ID**
101	TR1	D	Topsoil	19.06.09	RH
102	TR1	D	White Tephra	19.06.09	RH
103	TR1	D	Aeolian Mix- Spread across trench	19.06.09	RH
104	TR1	D	Peat Ash Mix with Woodash Lense and Silt	19.06.09	RH
105	TR1	D	Mixed Aeolian Deposit	22.06.09	SB
106	TR1	D	Pale-Pink Ash Deposit	22.06.09	SB
107	TR1	D	Mixed Ash Dump	22.06.09	SB
108	TR1	D	Mixed Medium Yellowish-Brown Soil Deposit	22.06.09	SB
109	TR1	D	Pink Mixed Peat Ash	23.06.09	AK
110	TR1	D	Aeolian Mixed with Turf Debris and Charcoal	23.06.09	JP
111	TR1	D	Orange Peat Ash Deposit	23.06.09	VF
112	TR1	D	Aeolian Turf Collapse	23.06.09	AK
113	TR1	D	Mixed Aeolian Deposit	23.06.09	AK
114	TR1	D	Blue-grey Tephra (1300?)	23.06.09	VF
115	TR1	D	Mixed Aeolian Deposit with Tephra and Charcoal	23.06.09	AK
116	TR1	D	Reddish Brown Silt Deposit	24.06.09	VF
117	TR1	D	Turf Collapse	24.06.09	NM
118	TR1	D	Mixed Grey-Brown Deposit	24.06.09	NM
119	TR1	D	Mixed Brown Silty Soil	24.06.09	VF
120	TR1	D	Mixed Ash Dump	24.06.09	NM
121	TR1	D	Mixed Peat Ash Deposit	24.06.09	VF
122	TR1	D	Fill Inside of Cut Feature (Rectangular)	24.06.09	AK
123	TR1	D	Peat Ash with Charcoal	26.06.09	NM
124	TR1	D	Mixed Turf and Aeolian Silt	26.06.09	VF
125	TR1	D	Pinkish Brown Peat Ash Deposit with Charcoal	26.06.09	VF
126	TR1	D	Mixed Midden Deposit Tipping into Cut Feature	26.06.09	VF
127	TR1	D	Mixed Gray-brown Aeolian Deposit	26.06.09	AK
128	TR1	C	Large Square Pit	29.06.09	NM
129	TR1	D	Black Organic Deposit at Base of Pit	30.06.09	AK
130	TR1	D	Peat Ash Dump	29.06.09	NM
131	TR1	D	Grey Ash Dump with Turf Fragment	29.06.09	NM
132	TR1	D	Pink Brown Charcoal Rich Deposit	29.06.09	AK
133	TR1	D	Grey Ash with Charcoal	29.06.09	AK
134	TR1	D	Mixed Pink Peat Ash	29.06.09	AK
135	TR1	D	Mixed Soil Ash Patch	30.06.09	NM
136	TR1	D	Grey Ash	30.06.09	NM

137	TR1	D	Mixed Pink Ash Deposit	30.06.09	AK
138	TR1	D	Mottled Soil, Ash, and Turf Debris	01.07.09	AK
139	TR1	D	Mixed Orangey-Brown Soil with Peat Ash Lenses	01.07.09	SB
140	TR1	D	Mixed Brown Soil with Turf Debris	01.07.09	AK
141	TR1	D	Peat Ash with Large Stones	01.07.09	AK
142	TR1	D	Soil and Turf with Large Stones-Fill In Cut Feature	01.07.09	AK
143	TR1	C	Fire Pit	01.07.09	AK
144	TR1	D	Mixed Ash Dump	01.07.09	NM
145	TR1	D	Mixed Turf Collapse	02.07.09	NM
146	TR1	D	Mixed Turf Collapse	02.07.09	AK
147	TR1	D	Turf Collapse- Green, Orange, Brown	02.07.09	AK
148	TR1	D	Turf Debris/Collapsed	02.07.09	NM
149	TR1	D	Turf Debris- Yellow, Orange, Light Brown	02.07.09	AK
150	TR1	D	Soft Red Aeolian, Etc.	02.07.09	HMR
151	TR1	D	Mixed Turf and Midden Mottled with Charcoal	02.07.09	AK
152	TR1	D	Black Charcoal Deposit	02.07.09	NM
153	TR1	D	Light Grey Ash Deposit	03.07.09	AK
154	TR1	D	Turf Debris	03.07.09	AK
155	TR1	D	Charcoal Ash with Turf Fragment	03.07.09	NM
156	TR1	D	Highly Mixed Dark Brown Debris Collapse	03.07.09	NM
157	TR1	D	Charcoal Ash with Bone Deposit	03.07.09	NM
158	TR1	D	Mixed Charcoal Deposit with Turf and Soil	03.07.09	AK
159	TR1	D	Turf Collapse	06.07.09	AK
160	TR1	D	Mixed Turf Collapse	06.07.09	AK
161	TR1	G	Cleaning of Western Profile	06.07.09	HMR
162	TR1	C	Cut of Posthole	06.07.09	NM
163	TR1	D	Fill of Posthole	06.07.09	NM
164	TR1	D	Yellow Silt	06.07.09	NM
165	TR1	D	Mixed Turf Collapse	06.07.09	AK
166	TR1	C	Gulley Feature	07.07.09	HMR
167	TR1	C	Cut for 120/121	01.25.10	RH

Table 7 – ODÖ09 Context Register

ODÖ 09 Sample Register							
Bag. No	**Area**	**Context**	**Vol.**	**sample for**	**Description/ Information**	**Date/ dd.mm.yy**	**ID**
1	TR1	129	4 L	archaeoentomology	Charcoal Rich Deposit at base of [128]	29.06.09	NM
2	TR1	129	4 L	flotation/ archaeobotany	Charcoal Rich Deposit at base of [128]	29.06.09	NM
3	TR1	141	4 L		Pink Ash- Fire Waste	01.07.09	HMR
4	TR1	164	4 L	archaeoentomology	Yellow Silt	06.07.09	AK
5	TR1	155	4 L	flotation/ archaeobotany	Charcoal Ash with Turf Fragment	08.07.09	NM
6	TR1	155	4 L	archaeoentomology	Charcoal Ash with Turf Fragment	08.07.09	NM
7	TR1	104	4 L	flotation/ archaeobotany	Peat Ash Mix with Wood Ash Lense and Silt	08.07.09	HMR
8	TR1	104	4 L	archaeoentomology	Peat Ash Mix with Wood Ash Lense and Silt	08.07.09	HMR
9	TR1	122-Upper	4 L	archaeoentomology	Fill inside of Cut Feature	08.07.09	ÞP
10	TR1	122-Lower	4 L	archaeoentomology	Fill inside of Cut Feature	08.07.09	ÞP
11	TR1	108/113	4 L	archaeoentomology	Mixed Deposit	08.07.09	ÞP
12	TR1	115	4 L	archaeoentomology	Mixed Aeolian Deposit with Tephra and Charcoal	08.07.09	ÞP

Table 8 - ODÖ09 Sample Register

ODÖ 09 Bone Register					
Bag. No	**Area**	**Context**	**Description Information**	**Date/ dd.mm.yy**	**ID**
56	TR1	102	White Tephra	09.07.09	JP
1	TR1	103	Bone from Aeolian Mix	19.06.09	RH
2	TR1	104	Peat Ash Mix with Woodash Lense and Silt	19.06.09	RH
3	TR1	105	Mixed Aeolian Deposit	23.06.09	NM
4	TR1	106	Pale-Pink Ash Deposit	23.06.09	NM
5	TR1	107	Mixed Ash Dump	23.06.09	NM
6	TR1	108	Mixed Medium Yellowish-Brown Soil Deposit	23.06.09	NM
7	TR1	109	Pink Mixed Peat Ash	23.06.09	NM
8	TR1	110	Aeolian Mixed with Turf Debris and Charcoal	23.06.09	NM
9	TR1	111	Orange Peat Ash Deposit	23.06.09	NM
10	TR1	112	Aeolian Turf Collapse	23.06.09	NM
11	TR1	113	Mixed Aeolian Deposit	23.06.09	NM
12	TR1	115	Mixed Aeolian Deposit with Tephra	23.06.09	NM
13	TR1	116	Reddish Brown Aeolian	24.06.09	NM
14	TR1	117	Turf Collapse	24.06.09	NM
15	TR1	118	Mixed Grey Brown Silt	24.06.09	VF
16	TR1	119	Brown Midden Soil	24.06.09	VF
17	TR1	120	Mixed Ash Dump	24.06.09	VF
18	TR1	121	Mixed Peat Ash Deposit	24.06.09	VF
19	TR1	122	Upper Fill of a Cut Feature	24.06.09	VF
20	TR1	123	Peat Ash Dump with Charcoal	26.06.09	VF
22	TR1	124	Mixed Turf and Aeolian Silt	26.06.09	VF
21	TR1	125	Pinkish Brown Peat Ash	26.06.09	VF
23	TR1	126	Mixed Midden Tipping into Cut	26.06.09	NM
55	TR1	127	Mixed Grey Brown Aeolian Deposit	09.07.09	JP
24	TR1	130	Peat Ash Dump	29.06.09	NM
25	TR1	131	Grey Ash Dump	29.06.09	NM
26	TR1	132	Pink-Brown Charcoal Rich Deposit	29.06.09	NM
27	TR1	133	Grey Ash with Charcoal	29.06.09	NM
28	TR1	134	Mixed Pink Peat Ash	29.06.09	NM
29	TR1	135	Mixed Soil Ash Patch	30.06.09	NM
30	TR1	136	Grey Ash	30.06.09	HMR
59	TR1	137	Mixed Pink Ash Deposit	09.07.09	JP
58	TR1	138	Mottled Soil, Ash, and Turf Debris	09.07.09	JP
31	TR1	139	Brown Soil	01.07.09	HMR
32	TR1	140	Mixed Brown Soil with Turf	01.07.09	NM
33	TR1	141	Peat Ash with Large Stones	01.07.09	NM
34	TR1	142	Soil and Turf with Large Stone Fill in Cut Feature	01.07.09	NM
35	TR1	144	Mixed Ash Dump	01.07.09	NM
36	TR1	145	Mixed Turf Collapse	01.07.09	NM
37	TR1	146	Mixed Turf Collapse	01.07.09	NM
38	TR1	147	Turf Collapse	01.07.09	NM
39	TR1	148	Turf Debris/Collapse	01.07.09	NM

40	TR1	150	Soft Red Aeolian Deposit	01.07.09	NM
41	TR1	151	Mixed Turf and Midden	01.07.09	NM
54	TR1	152	Black Charcoal Deposit	09.07.09	JP
42	TR1	153	Light Gray Ash Deposit	01.07.09	NM
43	TR1	154	Turf Debris	01.07.09	NM
44	TR1	155	Charcoal Ash with Turf Debris	03.07.09	NM
45	TR1	156	Highly Dark Brown Debris Collapse	03.07.09	NM
46	TR1	157	Charcoal Ash with Bone Deposit	03.07.09	NM
47	TR1	158	Charcoal Ash- Finer	03.07.09	HMR
48	TR1	159	Turf Collapse	09.07.09	JP
49	TR1	160	Mixed Turf Collapse	09.07.09	JP
50	TR1	161	Cleaning of Western Profile	09.07.09	JP
53	TR1	164	Yellow Silt	09.07.09	JP
57	TR1	165	Mixed Turf Collapse	09.07.09	JP

Table 9- ODÖ09 Bone Register