Draft NABO IPY 2008 Project Field Report

Skútustaðir Midden Investigations
Mývatn Northern Iceland 2008

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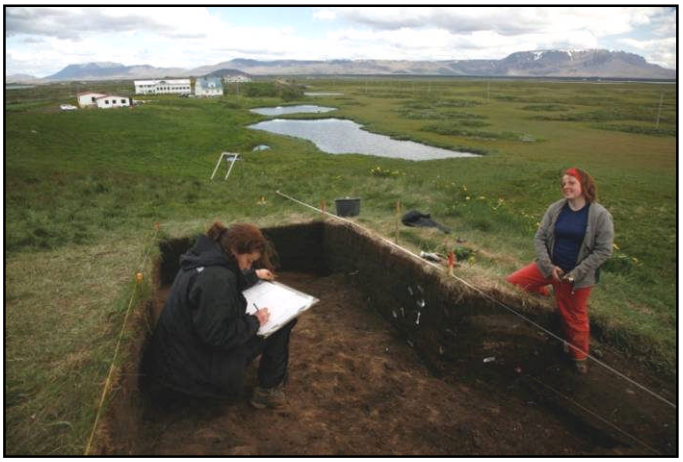

Figure 1 Area D from the West with Mývatn Science Station in background

Summary: In June-July 2008 an international team (led by Ágústa Edwald FSÍ and Tom McGovern CUNY) conducted initial investigations of stratified midden deposits associated with the historic site of Skútustaðir in Mývatn in NE Iceland. The project is part of a larger NABO (North Atlantic Biocultural Organization) and IPY (International Polar Year) program *Human Ecodynamics in the North Atlantic*, which works to coordinate international interdisciplinary projects in the Shetlands, Faroes, Iceland, and Greenland (see www.nabohome.org). In 2007 a joint FSÍ/CUNY NABO team visited Skútustaðir following the discovery of a patch of eroding midden by Arni Einarsson (Mývatn Science Station). Soil coring indicated up to 2.5 meters of cultural deposit in the grass covered slope extending southwards from the modern farm and church buildings. The 2008 investigations followed up on the 2007 results with a set of test trenches intended to test organic preservation, locate possible volcanic tephra horizons and datable patches of cultural deposit, and to recover an initial sample of artifacts and ecofacts. The 2008 season successfully located multiple tephra horizons (from V 1717 to the Landnám sequence of 871 +/-2), several of which can be followed over large areas. The three test units (D, E1&2, F) produced midden deposits with excellent organic preservation. Artifacts recovered and observed tephra indicate that the deposits sampled in **D** extend from ca. 1717-1477, **E1 & 2** have an early Viking Age deposit directly upon the Landnám surface, and **F** revealed a very rich 18th-19th c midden deposit and an unexpected structural wall. Ninety finds were registered, ranging from 19th c cream ware to a Viking Age glass bead; 74 bags of well preserved animal bone and bird egg shell were recovered, and 54 samples for archaeobotany, insects, and radiocarbon were collected. A large scale systematic coring program allowed rough mapping of midden deposits and planning for placement of 2009 units. A very successful collaboration was continued for a second season with the Hið Þingeyska fornleifafelag; local Archaeological Association and the Litlulaugaskóli *Fornleifaskóli barnanna/ Kids' Archaeology* program. There is great potential at Skútustaðir for further archaeological investigation, education, and outreach.

Research Background: Landscapes of Settlement

The current IPY-sponsored NABO / FSI project at Skútustaðir is a continuation of the long-running international cooperative project titled *Landscapes of Settlement: Historical Ecology of the Colonization of Northern Iceland*[1]. The Landscapes of Settlement project (LoS) has been directed by Orri Vésteinsson and Adolf Friðriksson of the *Archaeological Institute of Iceland* (FSÍ) since 1992 (continuously since 1996), beginning as a site-focused investigation of the Viking age ruins at Hofstaðir[2] and progressively expanding into a multi-year, multi-investigator, landscape scaled program researching the whole period of human settlement in the Mývatn basin and nearby districts from historical, archaeological, and environmental perspectives[3] . A recent overview of LoS research is provided by an appropriately multi-authored paper in *American Anthropologist.*[4]

The 2008 season at Skútustaðir thus continues the work of the LoS program, building upon past work in the Mývatn region and adding to a substantial body of prior research. Investigations in Mývatnssveit for the past fourteen years have resulted in major excavation programs of both structures and midden deposits at Hofstaðir, Sveigakot, and Hrísheimar, with smaller scale midden excavations and test trenching at Steinbogi, Selhagi, Oddastaðir, Brenna, and

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1 Funding has been generously provided by grants from RANNÍS, National Geographic Society, the Leverhulme Trust, CUNY Northern Science & Education Center, and the US National Science Foundation (Grants OPP 402900001, OPP ARC 0352596, BCS 0001026, BCS 0527732).

2 Friðriksson Adolf, Orri Vésteinsson, T.H. McGovern
(2004) Recent investigations at Hofstaðir, northern Iceland, In: R. A Housely & G Coles (eds) *Atlantic Connections and Adaptations; economies, environments and subsistence in lands bordering the North Atlantic,* AEA/NABO Environmental Archaeology Monographs 21, Oxbow Books. Pp 191-202.

3 Ascough, P.L.; Cook, G.T.; Church, M.J.; Dugmore, A.J.; Arge, S.V.; McGovern, T.H. (2006). Variability in North Atlantic marine radiocarbon reservoir effects at c. AD 1000. *The Holocene* 16(1): 131-136.

Ascough, P. L., Gordon Cook, Mike Church, Andrew Dugmore, Thomas H McGovern, Elaine Dunbar, Arni Einarsson, Adolf Friðriksson, Hildur Gestdottir
(2007) Reservoirs and Radiocarbon; 14 C dating problems in Mývatnssveit Northern Iceland *Radiocarbon* 49(2): 1-15.

Lawson Ian T., F.J. Gathorne-Hardy, Mike J. Church, Arni Einarsson, Kevin Edwards, Sophia Perdikaris, Tom McGovern, Colin Amundsen & Gudrun Sveinbjarnardottir; (2005) Human Impact on Freshwater Environments in Norse and Early Medieval Mývatnssveit. Iceland, in: Jette Arneborg & B. Grønnow (eds) *Dynamics of Northern Societies*, Proceedings of the SILA/NABO conference on Arctic & North Atlantic Archaeology 2004, National Museum of Denmark Copenhagen, pp 375-383.

McGovern, T.H., Sophia Perdikaris, Arni Einarsson, Jane Sidell (2006). Coastal Connections, Local Fishing, and Sustainable egg harvesting, patterns of Viking age inland wild resource use in Mývatn District, Northern Iceland, *Environmental Archaeology* 11.1 : 102-128.

Ogilvie, Astrid & T.H. McGovern (2000) Sagas & Science: Climate and Human Impacts in the North Atlantic, in W.W. Fitzhugh & E. Ward (eds.*). Viking Voyagers*, Smithsonian Inst Press, pp 385-394.

4 Thomas H. McGovern , Orri Vésteinsson , Adolf Fridriksson, Mike Church , Ian Lawson, Ian A. Simpson, Arni Einarsson , Andy Dugmore , Gordon Cook , Sophia Perdikaris , Kevin Edwards , Amanda M. Thomson, W. Paul Adderley ,Anthony Newton , Gavin Lucas , Oscar Aldred (2007) Landscapes of Settlement in Northern Iceland: Historical Ecology of Human Impact & Climate Fluctuation on the Millennial Scale, invited paper in special issue on the archaeology of global change, *American Anthropologist*,109(1):27-51

Thorleifstaðir combined with a comprehensive foot survey of the district (continued in 2008 by Oscar Aldred and Christian K. Madsen, see their separate report). The LoS program has greatly improved our understanding of the timing and processes of the Viking age Landnám in Iceland, and the value of multiple sites of different social status and local environment tied together by the isochrones provided by the critical V871 and V940 tephra has been clearly demonstrated. The strategy of a long term commitment to research in a single district and the "longitudinal" perspective provided has become a key element in the research agenda of *Historical Ecology* and *Human Ecodynamics*[5], and the LoS is now one of several similar landscape-scaled investigations in the region. In many respects, Mývatnssveit is now one of the most intensively researched and best documented portions of the Norse North Atlantic, and one of a very few Viking Age multi-site cultural landscapes now known anywhere.

Human & Social Dimensions of Global Change Investigations in 2006-07

However, the LoS has been far more successful in documenting the earlier phases of settlement in Mývatn than the later periods (somewhat reversing the normal situation in Iceland and elsewhere). We actually have far less evidence in Mývatnssveit for the later Middle Ages and early modern periods (ca. 1100-1850), and nowhere had we found a continuous archaeological record covering the whole period of human settlement in the region. In 2006 we began a cooperative project under the **Human and Social Dynamics of Global Change** program of US NSF led by Astrid Ogilvie (*HSD: Human and Social Dynamics in Mývatnssveit, Iceland, from the Settlement to the Present)* aimed at connecting the archaeological record with the historical documents for land use and landscape change with interviews with senior farmers in the district. The archaeology team has been tasked with locating midden deposits contemporary with the historical data sets, and to support the overall objectives of connecting more distant past with the present. In 2006 we did locate early modern deposits at Hofstaðir and Narfastaðir, but failed to locate the large and continuous midden deposits needed to link to the large Viking Age collections. In 2007, a larger scale survey project aimed at locating and testing

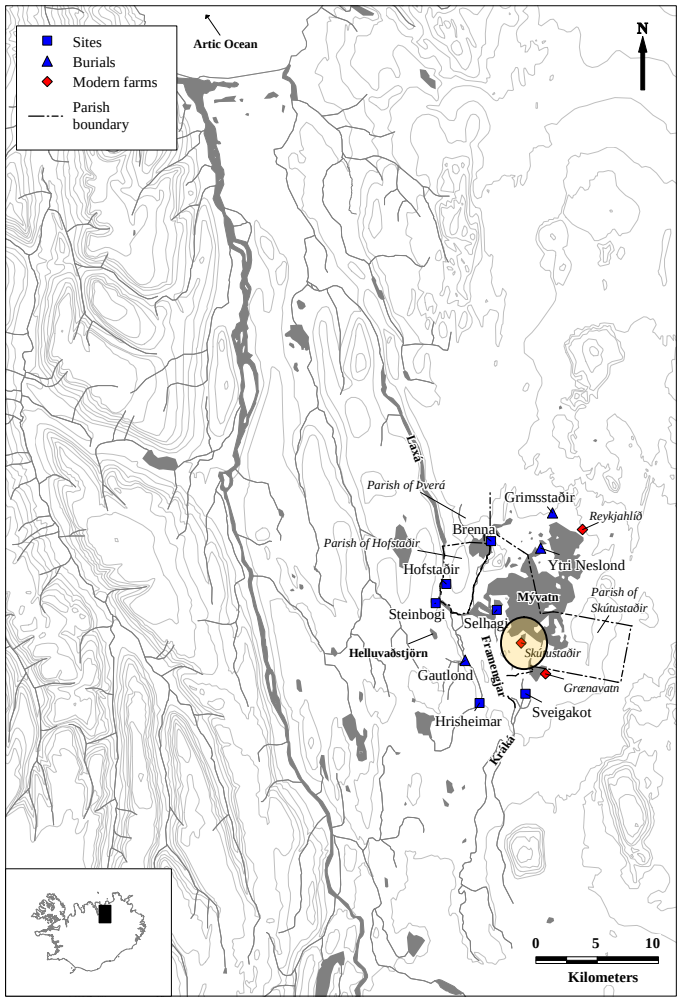

Figure 2 Location Map for Mývatnssveit

[5] Crumley, Carole (ed.) (1994) *Historical Ecology*, SAR Press, Santa Fe NM

middens (using soil corers and small test trenches) was carried out under the leadership of Orri Vésteinsson with the aim of locating deeper midden deposits extending from recent times to the medieval period. The 2007 survey located and tested middens at multiple sites (Beinistaðir, Hofstaðir, Graenavatn, Geirastaðir, Litla Gotland, Thorleifstaðir, Baldursheimar, Grímstaðir) but the key discovery of the 2007 season was made by Arni Einarsson, who observed a patch of erosion at the southern edge of the green field behind the modern farm and church area at Skútustaðir had exposed a patch of well preserved mammal and fish bones (the site is clearly visible from the Mývatn Science Station). It appeared that one or more pseudo -crater depressions had been filled with cultural deposits, a pattern reminiscent of the use of midden debris to fill natural or cultural holes and depressions seen on other sits. These discoveries led to an initial limited number of cores which indicated the presence of up to 2.5 meters of cultural deposits on the sloping surface of the Skútustaðir mound. While the LNS were not clearly seen in any core, we did encounter several apparently in situ tephra (possibly V1717 and V 1477) in several cores, and bone was recovered from cores in excellent condition. The modern family at Skútustaðir was strongly supportive of an excavation project, and a larger investigation of these promising deposits seemed clearly indicated. In 2007, the HSD grant was supplemented by the first field season of the new NABO IPY effort, and plans were made with FSÍ for an expanded cooperative excavation of the Skútustaðir midden beginning in summer 2008.

The 2008 Skútustaðir Project: Staff, Objectives, & Methods

The 2008 Skútustaðir project season began June 23rd and closed July 11th 2008. It was led for the FSI by Ágústa Edwald with help from Oscar Aldred, Jennifer Brown, Val DeFeu, Frank Feeley, Véronique Forbes, George Hambrecht, Aaron Kendall, Christian Koch Madsen, Tom McGovern, Ian Simpson, and the 2008 *Kid's Archaeology /Fornleifaskóli barnanna* project. Gerdur Benediktsdóttir was our hostess at Skútustaðir and provided warm hospitality and a great deal of practical help and information about the site and its history. The 2008 season was in many respects still exploratory, as we had not test-trenched the site in 2007 and we needed a better understanding of the nature of the apparently deep and rich cultural deposits before committing fully to a large scale multi-season effort at Skútustaðir.

The **objectives of the 2008 season** were:

Test deposits at Skútustaðir for organic preservation and the presence of stratified undisturbed midden, preferably extending into early modern times.

Locate and (if possible) trace tephra horizons horizontally and vertically.

Recover datable artifacts to confirm period of deposition.

Recover C14 samples (preferentially domestic animal bone) for AMS C14.

Recover animal bone collections (archaeofauna) large enough for preliminary quantification.

Recover samples for archaeobotanical (Mike Church) and palaeoentomological (Véronique Forbes) analysis

Provide stratified profiles for geoarchaeological sampling (Ian Simpson, Jennifer Brown, Val Defeu)

Provide logistic support for 2008 Mývatn survey project focused upon *rett* and other herding structures (Oscar Aldred and Christian Koch Madsen).

Provide an accurate site area map (using high resolution GPS).

Provide a preliminary map of deeper cultural deposits to allow effective location of a larger open area excavation unit in 2009-10.

Mapping of the site area was carried out by sub-cm scale mapping GPS (kindly carried out by Oscar), providing a secure base map. Coring transects were carried out using Oakfield tube soil corers (as in prior seasons) with visible stratigraphy logged by depth from surface. Excavation and recovery methods followed FSI standards, using single context planning and 100% sieving (4mm dry sieve) of all deposits with standard 10 litre bulk samples also taken for flotation (using the tank provided by Mike Church) from every context as specified in the archaeobotanical sampling protocol- all archaeobotanical samples were floated by the end of the season. Bulk samples were also taken for insect analysis (Veronique). Kubiena tins for soil micromorphology (Val and Ian) and for tephra (Jennifer) were also collected from profiles, and animal bone for AMS C14 was also pulled from selected strata. Photos were digital, using 9.1 megapixel (Fjui FinePix 6200) for record photos and 7.1 megapixel (Canon) for working shots. A digital copy (in MS Excel 07) of the written registers was kept and is curated on DVD and data stick with the full set of photos, journals, logs, and photos of the profiles and overall site plan. All finds and data are now curated at FSÍ in Reykjavik.

Site Overview

Just before we arrived on site, a narrow builder's trench had been opened along the West and part of the South wall of the modern house in order to work on siding and insulation. This builder's trench struck cultural deposits all around the house, with the deepest deposits close to the SW corner of the modern concrete house. The E-W trench extended roughly 8 m from the middle of the S wall of the house to the SW corner, and the N-S trench also ran about 8 m north of the SW corner of the house. The trench clearly intersected significant cultural deposits, as large pieces of bone (cattle, sheep, fish, bird (both swan and sea eagle) were protruding from what appeared to be rich midden deposits (ash, charcoal, turf ash) running all around the exposed "L" shaped unit, mainly concentrating at the base of the exposure. [6]This builder's trench has proved very useful, providing deep profiles revealing multiple tephra layers (more than any previously recorded from archaeological deposits in Mývatnssveit. The N-S builder's trench was designated area "**E 1**" and the E-W trench was designated "**E 2**". This area is cut by both the original construction trench of the modern house (about 50-75 cm from the wall line) and by a narrow trench cut for a water pipe connecting to the sheep house to the south. A second modern utility trench runs just east of the E2 unit. The E 2 area was extended with an approximate 2 x 2 m unit in its east end (stopping short of the second utility cut) to follow the lowermost midden deposits and to begin to bring the E2 profile into alignment with the project

[6] Gerdur informed us that animal bone had appeared in her garden on the N side of the house, and that more bone but no structural deposits had been encountered when the house was originally constructed.

grid system (approximately N-S, beginning at 500 W / 100 N). The excavation area in E 2 is thus somewhat irregular, as it was constrained by the pre-existing builder's trench.

The erosion patch observed by Arni in 2007 lay approximately 20 meters to the South of the SW corner of the modern house, at the current edge of the steep slope dropping down to the modern sheep house south of the modern dwelling houses (see site location map next page). This area was designated area **"D"** and a 2 X 5 m excavation unit (with a 2 x 40 cm extension to the S to follow the erosion cut) was opened and carried to the original lava rock surface. In unit D it was possible to identify and follow horizontally a dark black tephra (probably V 1717) across the whole unit.

Further to the East (downslope) we placed another test unit "**F**", near the edge of the rim of the lowest crater, where some of the deepest cores had been recovered in 2007. This 2 x 3 m unit could not be fit to the site grid because of the orientation of the crater rim, so its precise location is probably best read from the GPS map (also see site sketch plan figure 3 below). Unit F proved to be extremely rich in 19th c deposits, and somewhat surprisingly turned up a clear structure wall near the edge of the crater rim.

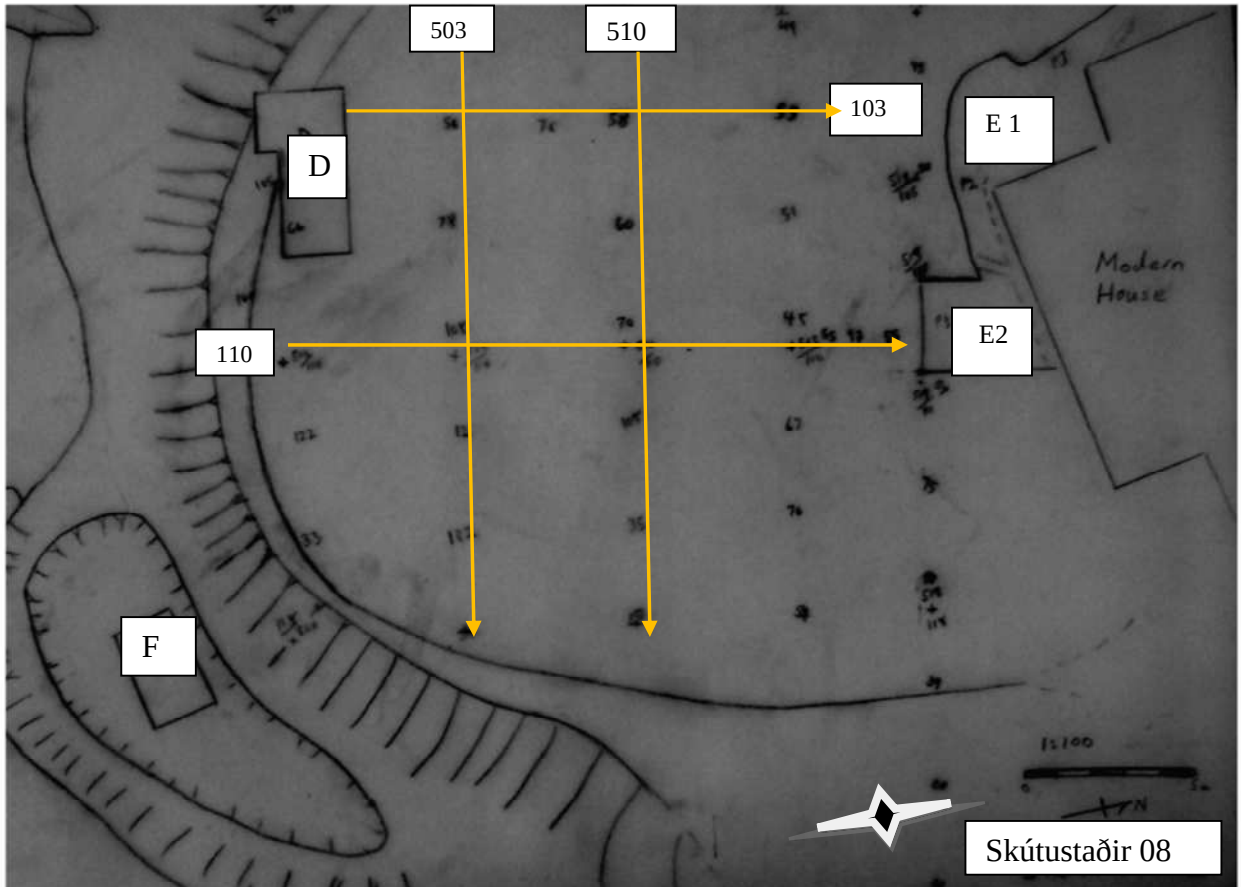

Figure 3 Skútustaðir site grid and sketch plan with maximum core depths & the graphed N-S and E-W transects

Coring Results

A major objective of the 2008 season was an intensive soil coring program aimed at determining maximum depth of cultural deposits (depth to sterile sub soil) and where possible some idea of stratigraphy and possible tephra deposits. While there are significant limits imposed by the field of view of a 3 cm-wide core, and detailed stratigraphic interpretation based entirely upon cores is unwise, the tube corer does provide a rapid and relatively non-destructive way of learning about deposits prior to (or in place of) excavation. The 2007 season coring runs (both scattered judgemental cores and four transects running roughly N-S and E-W) indicated that there was considerable variation in the maximum depth reached and that the natural surface appeared to be rocky volcanic lava throughout. After a few additional judgemental cores, in 2008 we set up a series of transects following the project grid (100 grid series is ~ N-S, 500 series is ~ E-W). Note that since we hit rock at base in every case, it may not always be possible to differentiate cores stopped by rocks above the maximum depth of cultural deposit, but the patterning of the results presents some clear patterns overall. Raw data is in the coring log in the Excel file in the data archive.

Figure 4 presents a graph of the maximum depths achieved by the highest resolution (1 m interval) coring transect along the S-N 110 grid line which passes through the approximate center of the deposits between the E 2 and D units (see figure 3). There is a clear pattern of increasing depth to the south (away from the modern house).

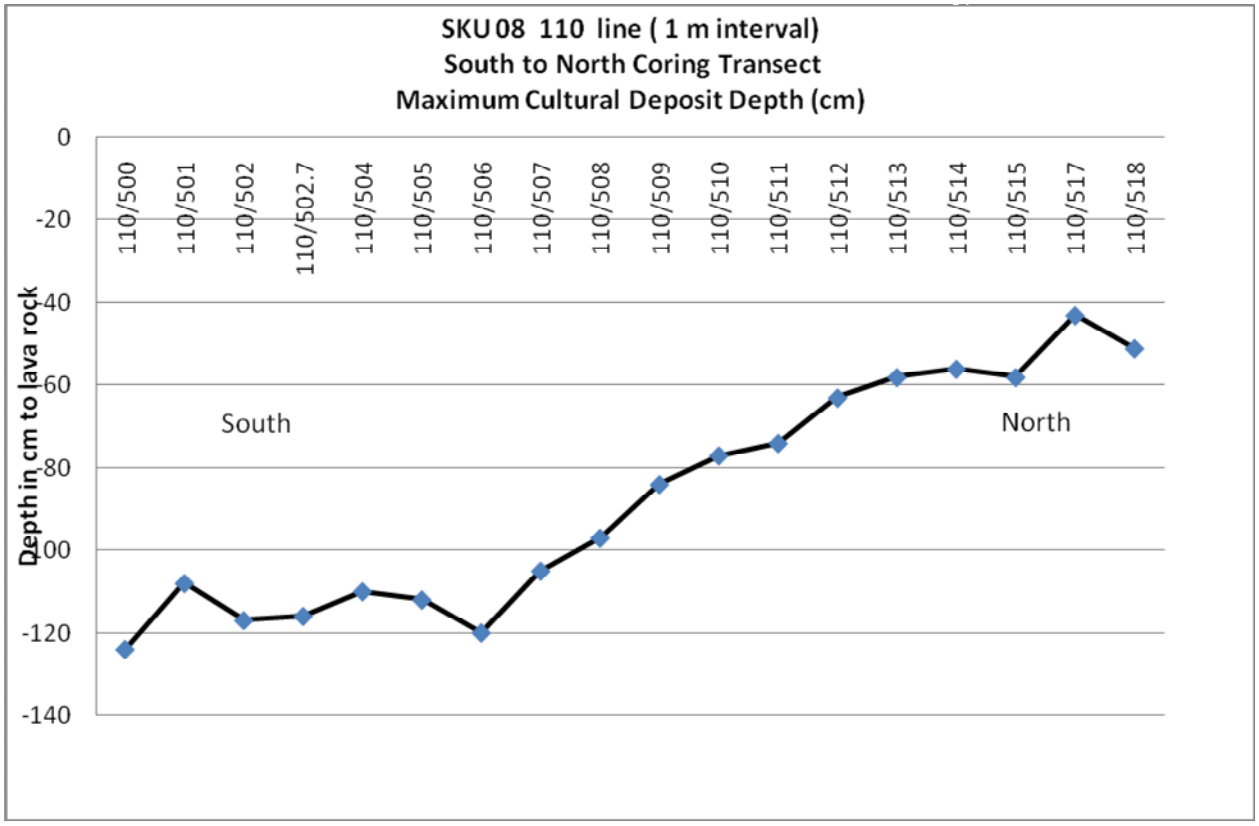

Figure 4 Maximum Depth of Cultural Deposit S- N 110 Line

Figure 5 below presents similar data (cores taken at 3 meter intervals) from the 103 line (further uphill towards the crest of the rise). Here overall depths are lower and the difference between N and S ends of the transect are less pronounced, but the deeper end is still clearly on the south side of the coring transect.

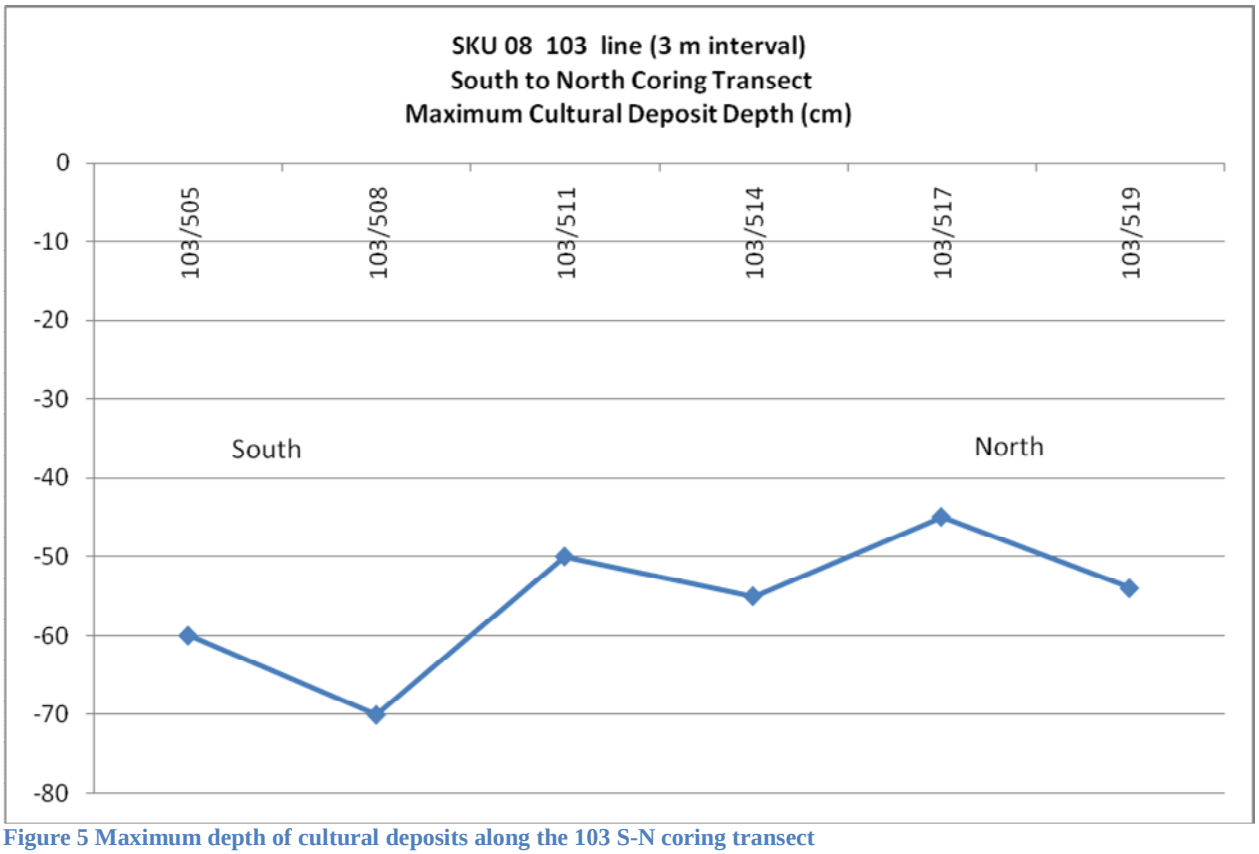

Figure 5 Maximum depth of cultural deposits along the 103 S-N coring transect

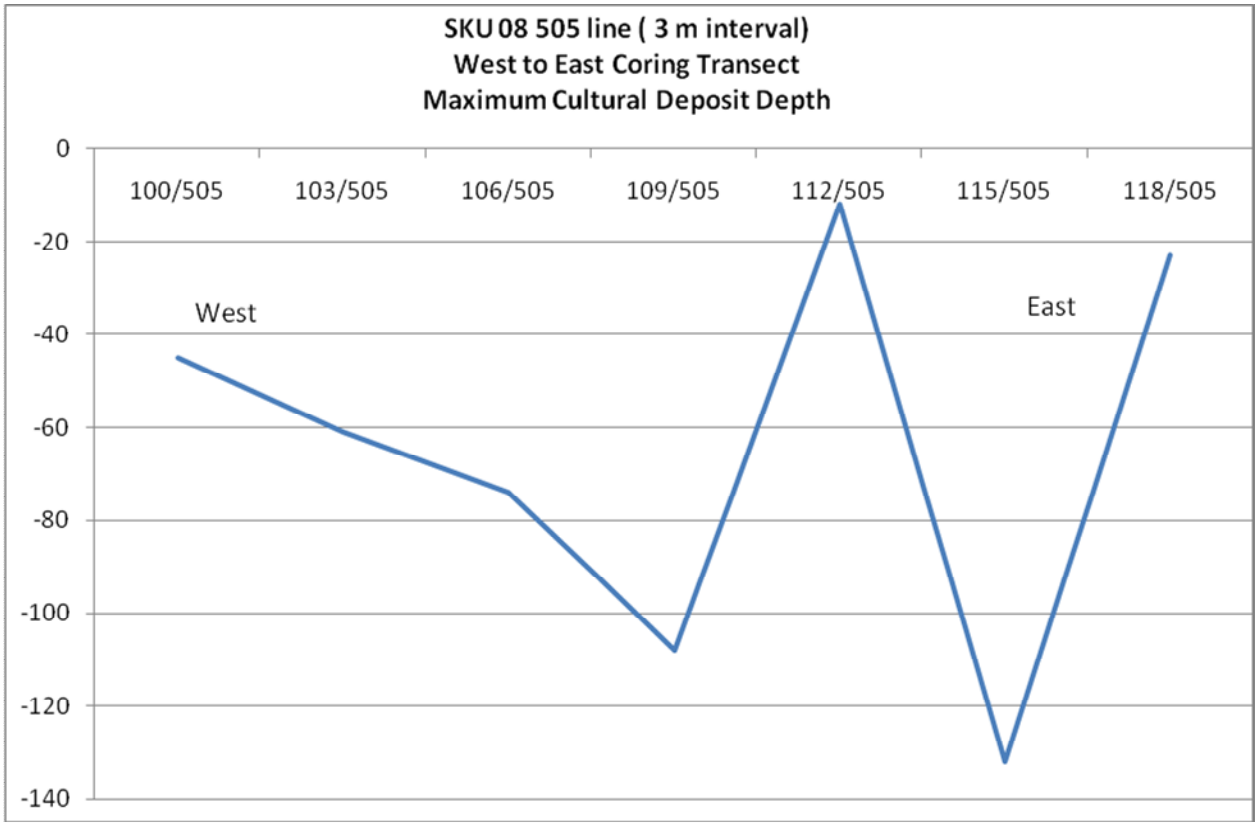

Figure 6 W- E coring transect on the 505 line

Figure 6 presents the coring data for a third transect (also at 3 m interval) of the maximum depth of cultural deposits. This transect runs downslope from west to east (see figure 3) and appears to reflect an increasing depth downslope (to the east), but with a marked shallow point around 112/505. This may be measurement error (hitting a rock), but note that Figure 7 (presenting a parallel transect 5 m to the North) shows a similar shallow point before recording > 150 cm depths. It is possible that these cores may be picking up some complex natural topography, such as the rims of multiple pseudo craters. The surrounding terrain provides several examples of multiple craters, and of craters combined with a wide range of irregular lava shapes.

Figure 6 and 7 coring depth results *may* indicate the presence of a double-ringed crater edge, but excavation will be required to confirm or refute this hypothesis.

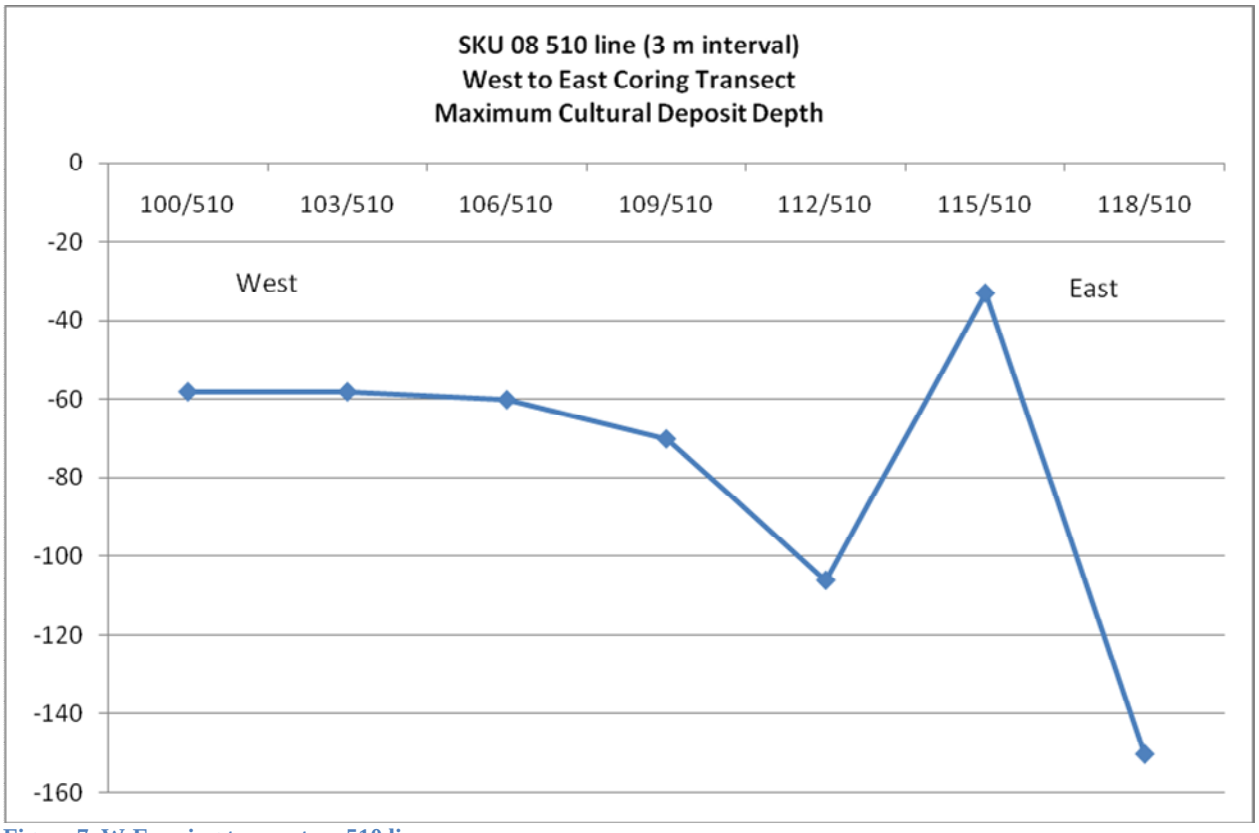

Figure 7 W-E coring transect on 510 line

While it is very unwise to over-interpret stratigraphy seen only in cores, it may be useful to present a preliminary view of tephra seen in cores along the 1 m interval. While any correlations between cores must be highly hypothetical, the placement of a dark tephra near the top of many core sequences does roughly correspond to the placement of the tephra tentatively identified as V 1717 in the area D unit. It does appear that (as one might expect) the clearest and most abundant tephra horizons are appearing in the deepest deposits towards the south-central portion of the apparent midden area. It would appear that this area would be a good place for a large unit allowing for better horizontal as well as vertical observation, and for the connection of plan with profile view over a large area.

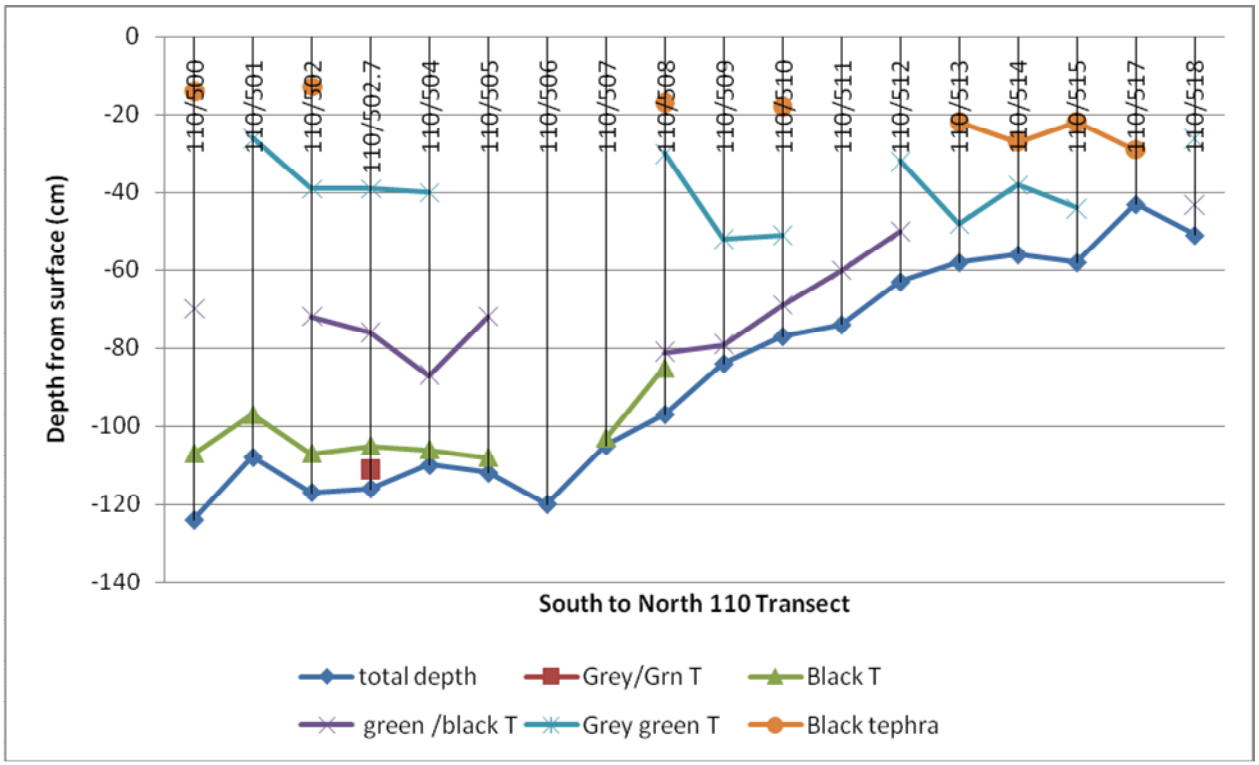

Figure 8 Preliminary view of tephra seen in cores along the 110 transect. NB: it is *not at all certain* that tephra linked by lines in this graph are in fact the same!

Figure 9 Area producing deep cores- NE of unit D, running E (downslope) to the apparent first crater rim (near Jennifer walking up slope in photo right)

Area D

Area D proved to lie at the southern edge of the probable pseudo crater, with a substantial set of midden layers running downhill to the S and other layers with an opposite bedding angle apparently accumulating against the lava rim on the inside (N). Both the probable V 1717 and the V 1477 were visible in this unit, with 1717 forming a surface that could be followed across the whole unit. The 1477 tephra surface covered only the lower (inner face?) portion of the unit, and it seems that all of the midden material covering lava rock edges and spilling down the slope to the south is post-medieval. The artifacts recovered (see Finds) support the view that the majority of this deposit dates between the early 18th century and late medieval period. Excellent bone preservation and clear stratigraphy make this a particularly valuable unit, one which has already answered several critical questions:

1) Can tephra surfaces be followed across archaeologically meaningful distances at the Skútustaðir midden? *Yes- this was possible across unit D.*
2) Is there "lateral accumulation": progressive horizontal dumping through time as well as vertical accumulation of midden layers directly upon each other*? Apparently so: the area D midden was largely between the V 1717 and V 1477 tephra, and the 15th c cultural deposits stop short of the crater rim. In area E2 nearly all the productive midden material is concentrated near the bottom of the profile on or near the Landnám tephra.*

Figure 10 Area D at base, lava substrate, V 1477 at lower (E) side

In area D, we can clearly follow tephra surfaces and use these to establish that (at least in this area) it was only in post-medieval times that refuse dumping (presumably from the N) topped the southern rim of the crater. Combined with the evidence for very early midden dumps in area E2 (approximately 20 m to the N), it seems plausible that there are in fact a series of only partially superposed "midden blobs" which have been used (probably intentionally) to progressively infill and smooth the rough and unattractive surface of the lava outcrop, moving more or less from N to S, uphill to downhill. Figure 10 shows the exposed lava rock of the apparent crater rim, with early modern (post 15th c) deposits topping the rock rim and running down the far side (S).

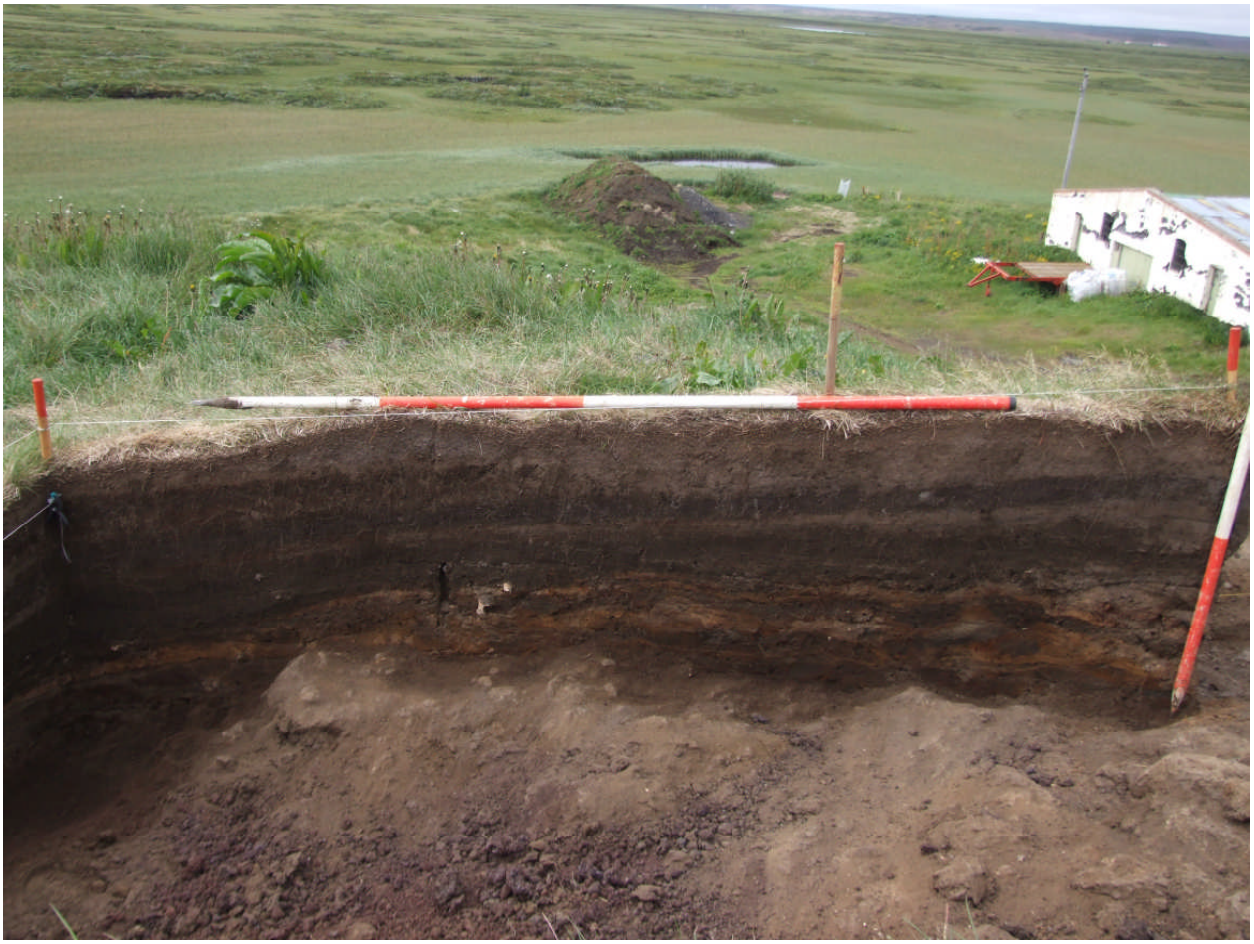

Figure 11 Area D south profile showing probable V 1717 and V 1477 tephra, midden deposits, and the lava substrate

Area E 1

E 1 (the N-S segment of the builder's trench along the west side of the modern house) is very narrow, with little or no surviving in situ materials extending out from the profile. However, the exposed profile is very deep and it was immediately recognized that multiple tephras are visible in the section- many not commonly seen on archaeological sites in Mývatnssveit. These appear to have built up in a natural hollow, perhaps on the outer (N) edge of the crater rim. There are many more tephra apparently present on N side of this rock outcrop (Profile 1 and 4) than on the south side (profile 2).

Figure 12 Part of profile 4, E1 with possible tephra indicated with pins

A full analysis and description will follow from Magnus and Edinburgh, and we hope that this unusually detailed sequence may be of wide utility as well as providing an excellent framework for building the chronology of the Skútustaðir midden deposits.

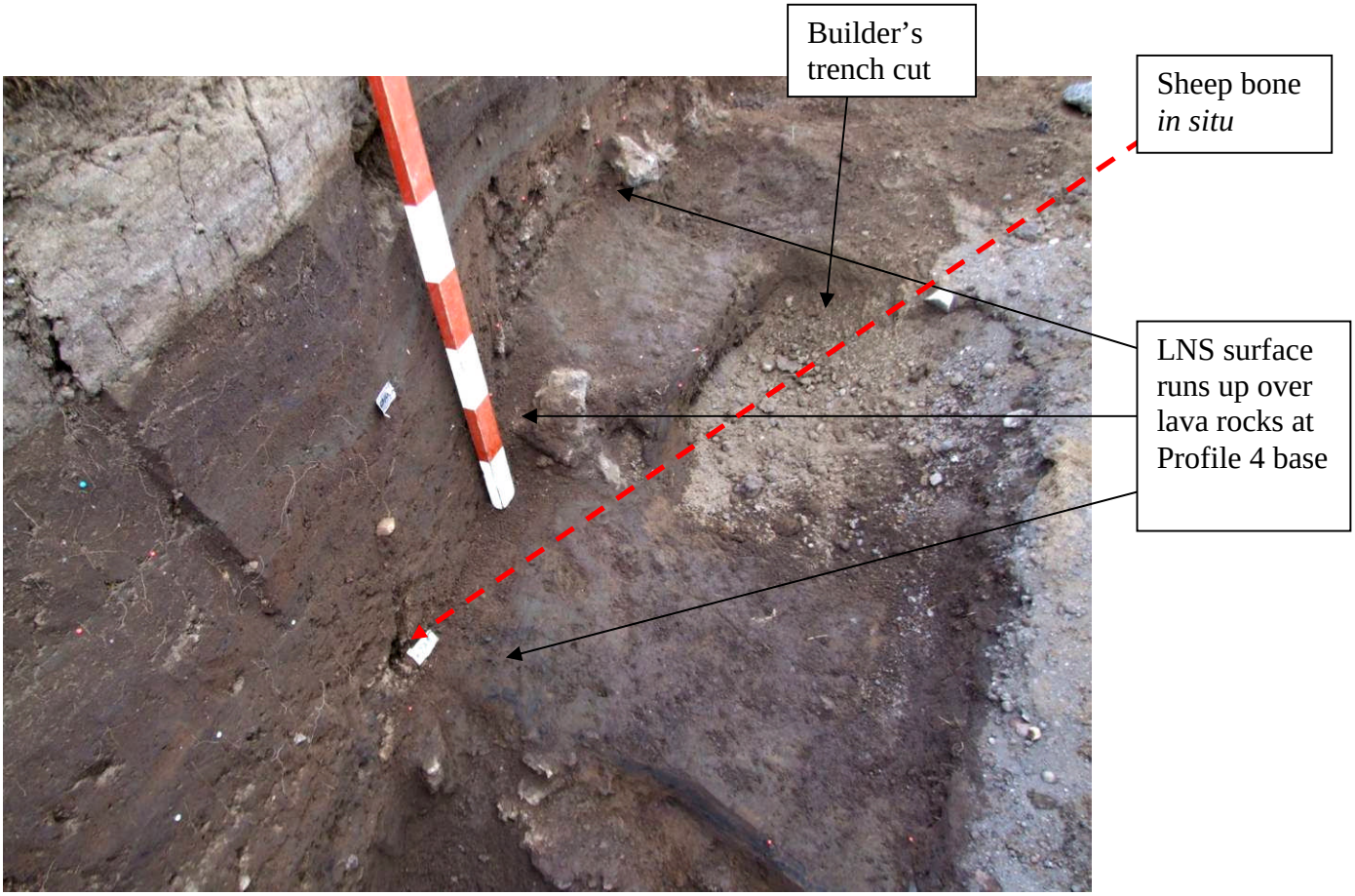

Figure 13 E 1 Showing intact segment of LNS running across builder's trench with animal bone in profile just above

While the many tephra exposed in the E 1 unit are still under study, it is clear that the LNS was present at the base of the cultural deposits, although in many places the contact zone (with the locally characteristic multi-banded profile) with the rocky lava substrate had made the interface difficult to follow for more than a few centimetres at a time. In the N end of E 1, the builder's trench had fortunately left a strip of intact LNS tephra which could be followed over an area ca 50 x 75 cm (figure 12 above). Its juncture with the profile and bedding angle changes (following the dip of the natural depression to the left of the photo) could be clearly traced. A concentration of domestic mammal bone (cattle and sheep) lay directly upon the LNS, suggesting human settlement very soon after the AD 871 +/-2 ash fall.

Area E 2

Area E 2 was designated to clearly separate deposits on the S side of the apparent crest of lava rock substrate at the southern end of profile 1 in the N-S leg of the builder's trench, as it became apparent that there were some significant depositional differences between the two areas (probably associated with the deep pit in the S end of profile 1). E 2 takes in the E-W running builders' trench, a water pipe cut, and seemed to contain a substantial scatter of animal bones. On cleaning, it appeared that intact deposits did survive over much of the E end of this trench, all lying below an extensive grey green tephra (probably V 1477 but possibly the V 940). On excavation, these deposits proved to contain rich organic deposits (including pig, goat, cattle, sheep, bird bone, marine and freshwater fish bone, & bird egg shell,). These deposits contained several non-diagnostic iron objects, a small steatite vessel sherd, and the Viking age glass double bead (see Finds below). At base, we were able to trace in a few areas patches of grey green tephra resting directly upon the rocky lava substrate (none larger than 20 sq cm).

Figure 14 Context [063] in the E side of area E2, the fill of a shallow pit in the natural lava substrate

This seems very similar to the definite LNS patches exposed in the N end of E 1, though it is not possible to establish a direct physical connection between the two layers. In any case, the basal

midden layers in E2 infilled several natural pits, some up to 50 cm deep. Some of the basal deposits (as in Profile 1 in E1) were full of pea-sized lava gravel as well as worn animal bone fragments. We speculated that this material could possibly be spoil from a nearby excavation into the lava surface, which was then deliberately spread about to level the rough natural surface. Context [063] is one such well defined fill of an apparently natural pit feature.

Area F

The area F unit lies at the base of a steep slope, in a small basin with the rocky lava edge of an apparent crater rim forming the S border of what the cores indicate as a very deep midden concentration. This area had somewhat worse drainage than the midden deposits upslope (W), and we removed several small thufur in the course of opening the unit. Area F quickly began to produce rich bone and artefact finds, many immediately identifiable as later 19th c. This would appear to be one of the major dumping areas associated with the late historic turf farm building documented by Bruun only 15-20 m to the N. While the apparent 1717 tephra is visible in profile, there seems to be a major midden deposit above. Below the 1717 tephra a small turf and stone wall appeared in the N side of the unit. This may be a retaining wall of some sort, or possibly part of a pen once built into the side of the crater. We clarify and plan this wall and then temporarily finish work in F (Figure 15).

Figure 15 Structure wall in area F

The F unit clearly provides rich resources for the later 18th-19th century portion of the settlement at Skútustaðir, neatly closing the gap left by the deposits in D, which appear to end in the early 18th century.

Kids' Archaeology/ Fornleifaskóli barnanna

For the second season, we were happy to cooperate with the school at Laugar to provide a special "kids' archaeology" program which combined class room and hands on experience in archaeology and environmental science to the local middle school/high school. A combination of power-point assisted classroom sessions, supervised hands on practice in coring, digging, recording, and flotation gave students a chance to participate directly in recovering their own history and expanding their personal horizons ("I want to do paleoentomology" was an actual quote at the end of a long day). We also did a special guided excursion to the inland site of Sveigakot, one of the best excavated smaller sties anywhere in Iceland, and directly contemporary with the Skútustaðir midden. The kids (of course) made most of the "good" finds, once more demonstrating the effectiveness of beginners' luck and providing some solid encouragement to young excavators. We look forward to working with the kids and their enthusiastic instructors next summer, and over the winter Dr. Sophia Perdikaris (the NABO IPY education coordinator) will make a special trip to the area to work on the Kids Archaeology program and developing curricular tools.

Preliminary Results and Assessment

The 2008 field season at Skútustaðir managed to accomplish all its goals, once more demonstrating the richness of the archaeological record of Mývatnssveit. The midden deposits surviving at Skútustaðir definitely represent a major resource for just the sort of long term comparative synthesis that we have been seeking under the HSD grant for the past two seasons. There is clear evidence for occupation from first settlement in the late 9th c down to the late 19th c, with what appears to be an outstandingly complete suite of tephra. Conditions of preservation combined with the opportunity for a temporally controlled excavation of a laterally-distributed midden deposit appear to provide an extremely favourable opportunity for a larger scale excavation.

Finds

A detailed description of the finds will follow further analysis, but a few summary observations can be made. Table 1 summarizes the finds by material and major type. A wide time range extending into the early modern period is suggested.

Table 1 Preliminary Finds Summary SKU 08

	Area			
	E1	**E2**	**D**	**F**
Cu alloy		1	2	4
bead (Viking Age)		1		
Worked bone				1
Iron	2	9	14	20
Steatite		1		
Whetstone		1	1	2
Spindle whorl			1	
Polished stone		1	2	1
Strike a light				1
Wool	1			
Window Glass			5	4
Vessel Glass			4	3
Ceramic sherds			3	9
Clay pipe fragment			3	4
total finds	2	14	20	27

As table 1 indicates, some artefact types (iron objects) are found in all units, but ceramics and window and vessel glass have been recovered only from areas D and F. Figure 15 graphs this distribution, underlining the overall differences between the E1 &2 and D and F areas.

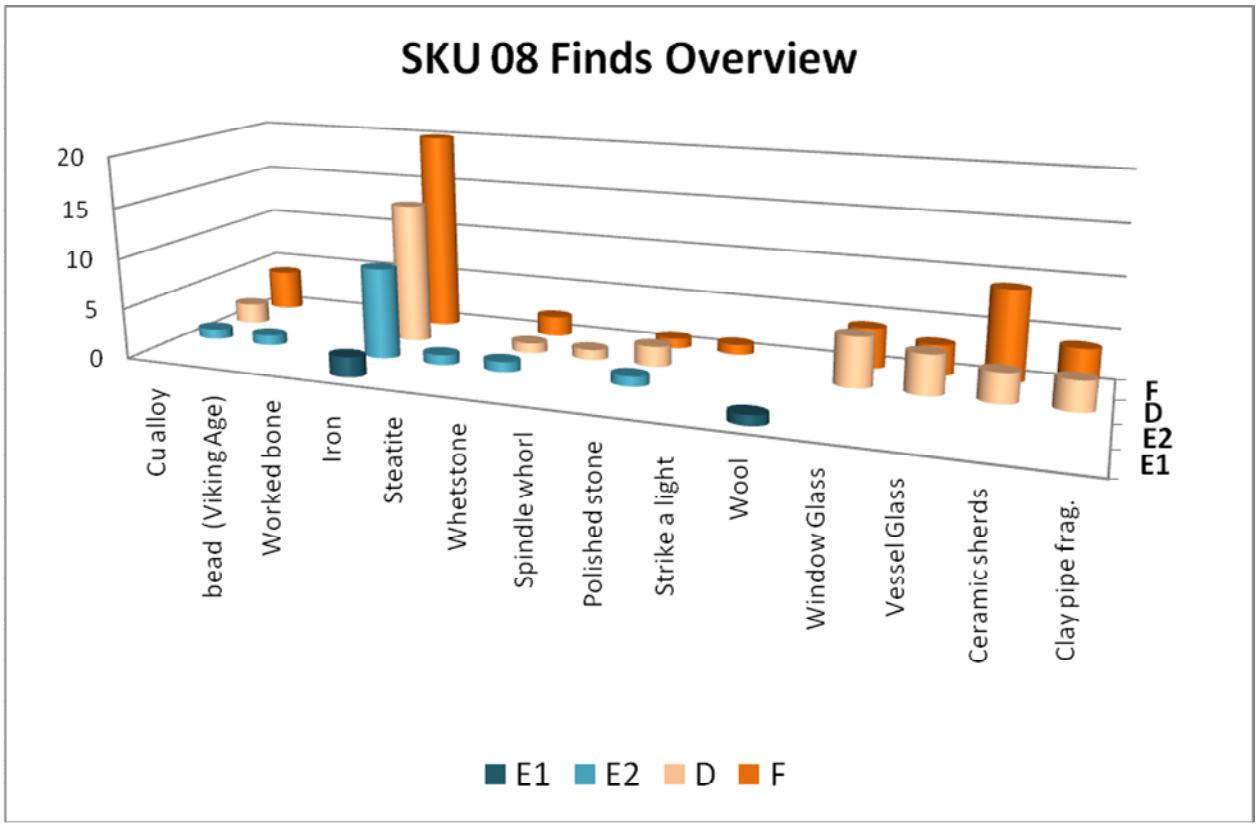

Figure 16 Distribution of Artefact types by area

Some individual finds also suggest the time range reflected in the excavated 2008 deposits.

Figure 17 Metal Button (back) [047] Area D

Figure 15 illustrates a metal button recovered from above the possible V 1477 tephra but below the possible V 1717 tephra.

Figure 16 Illustrates a glass bead from context [063], just above probable LNS. One of over 60 similar beads recovered from Viking Age contexts in Iceland (information from Elin).

Figure 18 Glass bead with gold flake fill E2 [063]

Skútustaðir Finds List 2008

Finds no.	[context]	Area	type	type	discussion
1	033	F	bone	worked bone	
2	033	F	glass	window glass	
3	033	F	glass	vessel glass	
4	033	F	metal	nails	
5	033	F	ceramic	potsherds	
6	033	F	stone	whetstone	
7	035	F	ceramic	sherd	
8	035	F	glass	vessel glass	
9	035	F	metal	fe obj	
10	032	D	metal	fe obj	
11	047	F	ceramic	sherd	
12	047	F	metal	fe obj	
13	032	D	glass	window glass	
14	032	D	ceramic	pipe stem	
15	002	D	glass	vessel glass	
16	002	D	glass	window glass	
17	002	D	metal	fe obj	

18	002	D	ceramic	sherd	
19	001	D	glass	vessel glass	
20	001	D	glass	window glass	
21	001	D	metal	nail	
22	001	D	ceramic	sherd	
23	007	E 1	metal	nail	
24	019	E 1	wool	cloth frag	
25	013	E 1	metal	nail	
26	046	D	cu alloy	button	
27	046	D	cu alloy	button	
28	046	D	metal	pin	
29	055	D	stone	spindle whorl	very large- horse hair rope making???
30	052	D	ceramic	sherd	2
31	055	D	metal	clothing fastener	
32	055	D	ceramic	pipe stem	
33	052	D	metal	fe obj	
34	046	D	glass	window glass	
35	046	D	metal	fe obj	
36	046	D	glass	vessel glass	
37	052	D	stone	polished	
38	046	D	ceramic	pipe stem	
39	052	D	glass	vessel glass	
40	047	F	ceramic	sherd	
41	047	f	metal	nail	
42	058	E2	stone	whetstone	
43	036	F	ceramic	pipe stem	
44	059	E2	metal	fe obj	ice creeper fragment?
45	036	F	glass	window glass	
46	036	f	glass	vessel glass	
47	050	F	metal	nails	
48	050	F	glass	window glass	
49	050	F	ceramic	sherd	
50	048	F	stone	polished	
51	045	F	glass	window glass	
52	045	F	metal	fe obj	
53	045	F	ceramic	pipe stem, pipe bowl	
54	059	E2	metal	nail	
55	059	E2	stone	polished	
56	057	D	metal	hook, nails, fe obj	
57	057	D	glass	window glass	
58	057	D	stone	whetstone	
59	071	D	stone	?	polished stone
60	060	E2	steatite	potsherd	small fragment
61	060	E2	cu alloy	sheet metal w/rivet	cooking pot fragment???
62	060	E2	metal	slag	
63	060	E2	metal	fe obj	

64	060	E2	metal	iron ring	needs x-ray investigation
65	061	D	metal	fe obj	
66	061	D	metal	fe obj	
67	061	D	metal	clothing fastener	
68	062	F	metal	fe obj	several frags
69	069	F	ceramic	sherds	
70	069	F	cu alloy	hinge?	
71	069	F	metal	nail	
72	063	E2	metal	fe obj	
73	063	E2	metal	fe obj	
74	063	E2	metal	nail	small forged nail
75	063	E2	glass	bead	double bead w/ gold foil fill: Viking Age
76	063	E2	metal	nail	
77	075	F	metal	nails (3)	
78	075	F	metal	ring	part of a tool haft???
79	073	F	metal	nails (3)	
80	075	F	stone	obsidian	strike a light?
81	074	F	metal	fe obj	
82	077	F	stone	whetstone	small
83	077	F	stone	manuport	
84	075	F	metal	fe obj	
85	077	F	metal	fe obj	
86	075	F	cu alloy	rivet?	possible decorative mount?
87	077	F	cu alloy	sheet metal	rolled ball of sheet metal
88	077	F	ceramic	sherds (2)	red glazed red ware w/ridges
89	077	F	stone	manuport	two pretty stones
90	077	F	cu alloy	loop	clothing loop?

Animal Bones

In areas D and F most contexts produced substantial amounts of well preserved mammal, fish, and bird bone, and egg shell concentrations were encountered regularly. In areas E 1 and E2 most bone was concentrated at the base of the profile (especially in E2). A total of 74 bags of bone were recovered, a very substantial start towards a fully quantifiable multi-period archaeofauna.

While even a preliminary zooarchaeological assessment is best left until laboratory support is available, some field observations can be made. In area E2, both marine and freshwater fish bones were recovered (freshwater fish in some quantity) along with cattle (adult and neonatal) sheep, goat, pig (including some neonatal suckling pig bones), and birds (including at least one swan) as well as concentrations of bird egg shell. This archaeofauna certainly resembles the early materials from SVK and HRH, and the association with the Viking age bead adds to the impression of an early archaeofauna. Both the F and D units have produced substantial amounts of bone, again including both marine and freshwater fish and bird egg shell. Area F also contained several seal bones, at least two of which are definitely harp seal (*Phoca*

groenlandica) usually associated with drift ice. Harp seal bone was also recovered from early modern contexts at Hofstaðir. It will be interesting to see if there are any documentary references to a trade in seal meat or participation by Mývatn people in the coastal seal hunt. Mandibles with intact tooth rows are being recovered from all units, suggesting that herding pattern reconstructions will be possible as sample sizes increase. Conditions of preservation (even for bird egg shell and fish bone) are excellent, with pH consistently in the 6.5 range.

Bone sample list SKU 08

No.	Area	Context	# of bags
1	D	002	2
2	D	001	2
3	D	003	1
4	D	005	1
5	D	032	1
6	D	019	1
7	D	033	2
8	D	013	1
9	E	006	1
10	E	006	1
11	E	007	1
12	D	032	2
13	E	035	2
14	D	044	1
15	F	036	1
16	D	046	2
17	D	052	3
18	D	056	1
19	F	047	1
20	F	045	1
21	D	055	2
22	F	051	1
23	F	050	1
24	F	036	1
25	E2	014	1
26	D	059	3
27	D	057	1
28	E2	059	3
29	E2	006	7
30	F	009	2
31	D	072	1
32	E2	060	2
33	D	061	1
34	D	062	2
35	F	068	1
36	D	071	1
37	F	054	1
38	D	067	1
39	D	070	1

40	D	065	1
41	E2	063	1
42	D	066	1
43	F	077	1
44	VOID		
45	F	077	2
46	F	076	1
47	F	075	2
48	E2	063	1
49	F	074	1
50	F	073	1
51	E2	006	1

Samples

Following the project protocols, we took systematic samples from all contexts for flotation for macrofloral (all floats completed, left drying at Mývatn Science Station). Bulk samples were also taken for insects, spot samples were also taken when preservation was apparently good.

S KU 08 Samples List

number	Area	Context	Vol.	Description
1	d	002	10 L	macrofloral
2	off site	sheep house	2 L	insects
3	e	006	10 L	macrofloral
4	d	005	10 L	macrofloral
5	D	005	10 L	macrofloral
6	D	032	10 L	macrofloral
7	F	035	10 L	ash deposit
8	F	045	10 L	turf deposit
9	F	047	10 L	macrofloral
10	E2	006	small bag	birch bark
11	E2	007	small bag	charcoal large frags
12	D	046	10 L	macrofloral
13	D	052	10 L	macrofloral
14	F	054	10L	macrofloral
15	D	055	10L	macrofloral
16	E2	058	10 L	macrofloral
17	D	057	10 L	macrofloral
18	E2	059	small bag	neonatal cow (c14)
19	D	057	small bag	burnt wood
20	D	062	10 L	macrofloral
21	E2	063	10 L	macrofloral

22	e2	060	10 L	macrofloral
23	D	067	10 L	macrofloral
24	D	071	10 L	macrofloral
25	E2	063	10 L	macrofloral
26	F	069	10 L	macrofloral
27	F	073	10 L	macrofloral
28	F	074	10 L	macrofloral
29	F	075	10 L	macrofloral
30	F	077	10 L	macrofloral
31	E	betw 010 & 008	3 L	insects
32	E	Betw 012 & 010	1 L	insects
33	E	betw 014 & 012	3 L	insects
34	E	betw 026 & 014	3 L	insects
35	E	betw 026 % 024	3 L	insects
36	e	betw 024 & 022	3 L	insects
37	e	betw 022 & 020	3 L	insects
38	E	betw 020 & 014	3 L	insects
39	E	betw 014 & 012	3 L	insects
40	E	Betw 012 & 010	3 L	insects
41	E	betw 010 & 008	3 L	insects
42	D	below 064	3 L	insects
43	D	betw 031 & 064	3 L	insects
44	D	above 031	3 L	insects
45-51 are VOID				
52	F	077		insects
53	F	075		insects
54	F	073		insects
55	F	069		insects
56	F	045		insects
57	F	036		insects

58	F	035		insects
59	E1	just above 020		C14
60	E1	basal midden		C14
61	E2	006		C14

Photo Gallery

Figure 19 Successful Backfilling.....

Figure 20 Skútustaðir from the S E prior to excavation

Figure 21 View towards the S from SKU, looking over Framengjar wet meadows and Graenavatn in distance

Figure 22 Skútustaðir midden area from the N

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