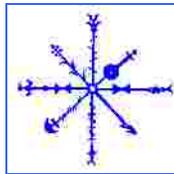


Midden Investigations at Hrísheimar, N Iceland 2003

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NORSEC

Field Report 2003/6

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February 19, 2008

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***A product of the Leverhulme Trust Project “Landscapes Circum Landnám” and North
Atlantic Biocultural Organization (NABO) Research Cooperative.***

Summary

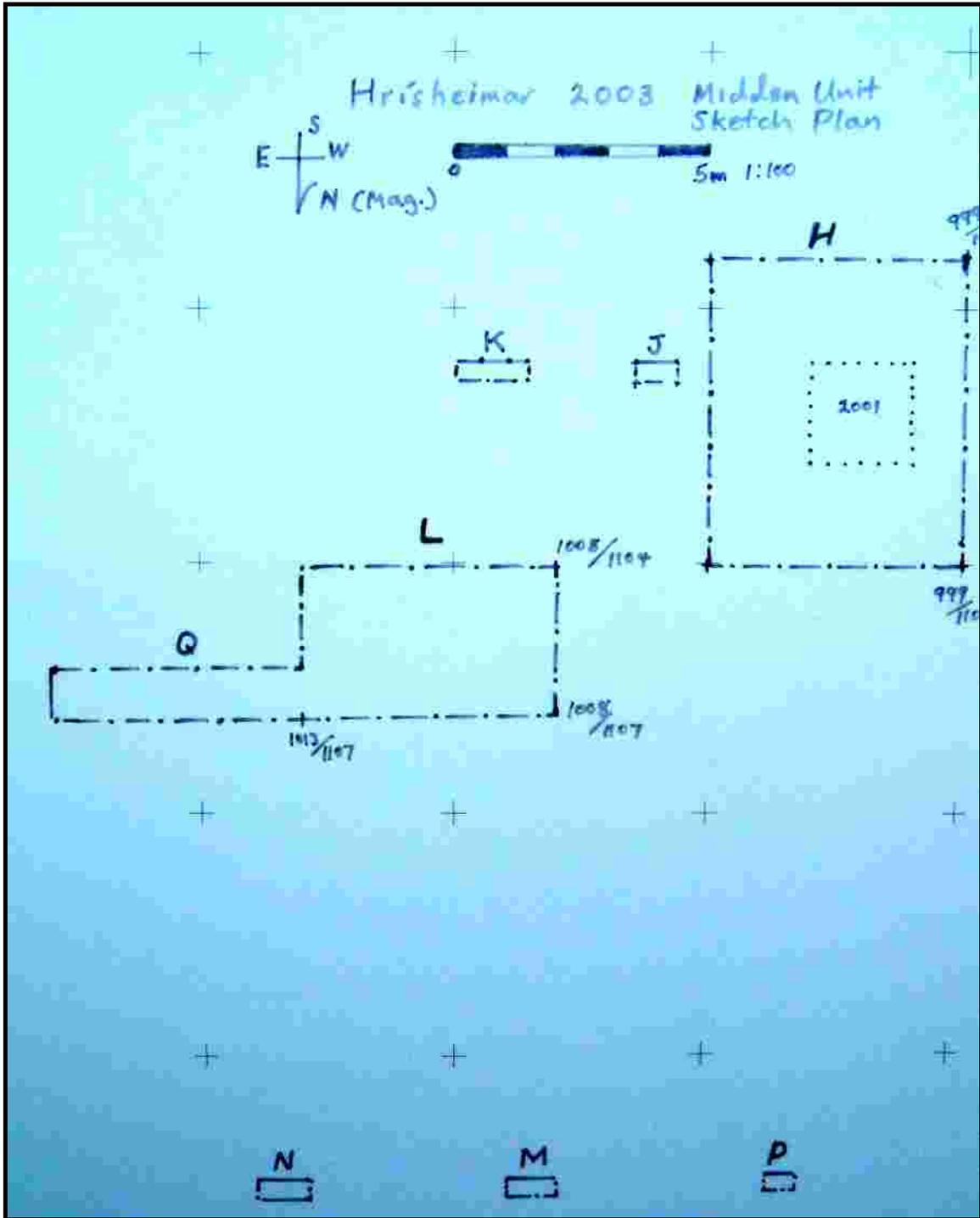
During the 2001 season, the *Landscapes of Settlement* project began excavations at Hrísheimar near the modern farm of Baldursheimar in Mývatnssveit N Iceland. This long-abandoned site has been heavily eroded for some time, and visitors have found Viking age artifacts and bone fragments eroding out on the surface for many years. The 2001 season excavated a 2 x 2 m unit (H) placed over an eroding concentration of animal bones just to the SE of the visible farm mound, on the edge of the only turf-covered portion of the site. The H unit proved to be extremely rich in well preserved bone (see McGovern et al 2002 report) and appeared to be contained within a small sunken feature structure. Three mutually consistent AMS radiocarbon dates on context 003 (upper midden fill of unit H) place this refuse deposit in the late 9th- mid 10th c AD (GU9729 cal 1 sigma AD 860-980, GU9730 AD 880-990, GU9731 AD 880-990). The site was visited in 2002 (McGovern, Perdikaris et al 2002) and found to be still gradually eroding. Soil cores in the still turf covered portion of the site to the E of the farm mound suggested some additional cultural deposits might be preserved in this area. The remains of the midden deposit and the possible pit house in area H were primary objectives for the 2003 season. Secondary objective was a more complete testing of the turf covered area just to the E of the H unit. The middens team was able to clear the pit house fill and expand the original 2 x 2 m unit to a full 5 x 6 m open area, allowing better definition of wall tops and effective removal of the small amount of remaining midden deposit. The structures team was then able to take over and conduct a highly successful excavation of the pit house. A series of small test trenches to the E of the M unit in the vegetated area rapidly turned up a series of cultural deposits, including what appeared to be both structural turf and sheet midden deposit. Two test units were combined and expanded into what became the 3 x 5 m unit L, which proved to hold both intact turf walled structures and a large and very rich midden deposit. The rest of the season was spent in stratigraphic excavation of the midden fill from around the exposed walls and attempt to connect the cultural deposits to intact tephra sequences. Major bone collections and some significant artifacts were recovered, and more excavation in the 2004 season is clearly indicated. As in the 2001 season, all cultural material was dry sieved through 4 mm mesh and major whole soil samples were retained for flotation from all units.

Description: Unit Location

The midden team set out its grid and units following the orientation of the original 2001 unit (magnetic N-S), subsequently discovering that the structures team had established their own grid using geographic N as grid north (when it was too late to alter the orientation of excavation units). This is not a major problem, but users should be aware that the midden units are all aligned with a magnetic NS orientation while the structures plans will follow geographic N. Figure 1 presents the approximate location of the 2001 and 2003 midden units, which were laid out by tape triangulation rather than surveying instrument and have the associated levels of accuracy. All features will be fine scale mapped by Total

Station and Trimble GPS. Tom McGovern and Sophia Perdikaris supervised the first weeks of excavation, with Jim Woollett taking over from Sophia and taking on most of the excavation of the L unit personally.

Figure 1 presents a sketch map of the main midden areas as they existed at the end of the 2003 excavation season.



Clearing Area H

The first task for the 2003 middens team was to better define the features associated with the area H midden and pit house. Making use of the willing labor of the REU team, we unturfed a 4 x 5 m unit, soon expanded to 5 x 6 m to take in the whole structure as it emerged (view from NW). Beneath the turf (context 001)



a series of micro layers of interbedded thin organic horizons and sterile tan windblown silt were encountered (collectively context 001). These appear to reflect successive stages of dune stabilization by groundcover plants followed by renewed deposition of wind blown silt (probably from the rest of the site deflating to the S and W). These could not be stratigraphically separated and seemed to be functionally equivalent natural events, so we removed most of

this deposit by spading. Near the base of the 001 deposit (up to 65 cm thick in some parts of the unit H area) we did encounter some concentrations of well preserved animal bone, including caprines and cattle bone (context 002). This material definitely overlay both the emerging pit house wall top and the remains of the midden fill. Similar small concentrations of bone were encountered in similar stratigraphically equivalent Aeolian deposits in test units K, L, and Q. This material may be related to a later occupation (perhaps following abandonment of the permanent farm) or it may be still later but vertically displaced by continued erosion and re-deposition of sediments and in fact relate to still later phases in the 001 sequence. In several places we believed we had the 1477 tephra (assigned context 030) *in situ* well above the first culture layers, but a visit from Anthony Newton indicates that 1477 has probably been taken up and redeposited several times within the 001 aeolian deposit, and we are probably not looking at an *in situ* tephra. All bone bearing portions of 002 were hand excavated and sieved (4 mm mesh).



Beneath the 002 context we rapidly encountered the 004 upper midden deposit identified in 2001 as well as the distinctive upcast wall top of the pit house (context 010, tan subsoil mixed with large blotches of white H3 tephra). The profile (still tagged) of the 2001 unit was very helpful in clearing the remaining midden fill from the edge of the pit house (view from S). We also became aware of our good luck in the placement of the original 2x2 m unit, which

fit more or less squarely within the pit house area without severely clipping into

the walls on either side. We were able to peel back the upper midden fill



(contexts 004 and 003) and the uppermost wall collapse (mainly randomly oriented structural turves with a great deal of grey-green tephra embedded within), cleaning down to the lower midden deposit 006 and the top of the lower wall fall. At this point (July 30th) we ended excavations and turned the area H excavation over to the structures team (view from NW)

View from S looking towards the N E corner of the expanded 2003 unit H area. Note how the medieval ground surface dips away to the right (E) and the multiple layers of silty organic windblown deposit become thicker to the E as well.



layers of silty organic windblown deposit become thicker to the E as well.
 001 sterile
 upcast 010 wall top
 embedded bits of H3 tephra.
 area of bone concentration within 002

Test Pits

As the work in area H continued, test units 50 cm x 1 m were dug along the turf covered slope to the north and east of the H unit. This area had shown some concentrations of ash and charcoal in corings during the 2002 visit, but results had been uneven, with many cores in the area showing only sterile silts. Our objective in 2003 was to confirm whether or not any appreciable amount of intact cultural layers existed beneath the turf or if in fact this part of the site had been largely eroded away prior to the later deposition of the windblown silt and successive groundcover communities. See the sketch location plan (figure 1 above) for layout of the test pits.

The first test pit (J) was a 50 cm x 1 m shovel test 50 cm to the E of 1004/1100. This **unit J** revealed a largely natural stratigraphy with 1477 tephra on top and H3 at base, but an intermediate deposit of H3 revealed some disturbance and reversed stratigraphy. It would appear that some upcast with H3 embedded was moving at least this far from some nearby excavation in the past.

Test pit K was 50 cm x 2 m, located 3 m to the E of test pit J on the same line (approximate 1100 N). This test pit also showed 1477 and reached in situ H3 tephra at base, and showed no upcast tephra. Most of the deposit was laminated natural silt, with the same multiple fossil turf horizons described in the 001/002 contexts in the H area. However, the lower portion (15-25 cm below surface) also contained some well preserved bone and fire cracked stones. This appears to be a low density midden similar to context 002 in the H area, and testifies to some human activity down this slope (5-6 m E of the pit house in H).



Test pit L was initially a 50 cm x 2m shovel test at approximately N 1104/ W1013. The unit hit a dense layer of bone and ash at approximately 55 cm below surface and was stopped at that depth. It also clipped into a turf construction block. A second test pit was opened at approx. N 1104/W1008 and this hit a similarly rich midden deposit at 35

cm below surface and was also stopped. Clearly a significant in situ cultural deposit existed in this area below a thick drift of Aeolian deposit. The next few

days saw the expansion of test pit L into a full 3 x 5 m excavation unit with its long axis running perpendicular to the slope. L rapidly became the focus of the second half of the 2003 midden team's work, and will be discussed in more detail below. It was eventually connected to test pit Q by a long continuous trench.

Further north, a line of three small test pits were dug 5 m apart along the approximate line of the 1117 N midden grid.



P (furthest uphill ca 1003/1117N) showed striated silt/organic horizons of the now familiar aeolian deposits and temporary turf stabilization phases. At 50 cm a clear culture layer was encountered across the whole unit, both dark deposit with many burnt bone flecks evident and an apparent line of three stones running across the

unit (approx N-S orientation) these may well be simply fire cracked stones but we left them in place for further investigation. Certainly cultural material here, possibly structural as well.

M (midway down slope ca 1008W/1117N) a deeper deposit natural striated Aeolian silts approximately 50-60 cm deep, with a clear set of bedding angles parallel to the modern slope, probable bedding angle shift towards a level plane in the bottom 5-10 cm of this natural deposit. At 50-60 cm below surface a dense in situ turf construction (probably a major structural wall) was encountered. Unfortunately I managed to penetrate about 25 cm into the top of this deposit before realizing the nature of this cultural layer, so there will be an intrusion at this point. The turf construction extends completely across the entire 50 cm x 1 m test unit, so it was not possible to determine anything about the orientation of the wall or possible structure, but this would appear to be part of a major construction.

N (near base of slope ca 1013/1117 N) a surprisingly deep deposit given that the unit is only a few meters from the modern fence, again with 50-70 cm of striated Aeolian silt immediately below the modern turf. Small flake concentrations and bits of displaced turf appear around 50-70 cm from surface, including a broad band of dark grey green tephra at 62-55 cm from surface. This is NOT an in situ tephra but instead clearly in either upcast or (more likely) in a displaced structural turf. The cultural deposit is quite thick here, but it appears to be more likely to be displaced collapse than actual structure. An Oakfield core reached H3

at 139 cm from surface, establishing the lowest limits of the deposit. This unit is hard to interpret, but it is possible that it is mainly composed of reworked structural debris from upslope, or possibly from a nearby structure at the base of the slope.

Thus the three small test units along the 1117 line (approximately in line with the center of the eroded farm mound to the W) each produced clear evidence of some sort of in situ cultural deposit, though each had a completely different character. These test pits did not provide a very wide view of deposits below the thick deposit of sterile silts, but they did demonstrate that some sort of intact archaeological deposits extend very widely beneath the turf covered remnant along the E side of the site. Erosion has *not* removed all evidence here, and large scale excavation seems fully justified.

Unit Q was begun as a 50 cm x 1m test unit at ca 1018/1107, approx 5 m

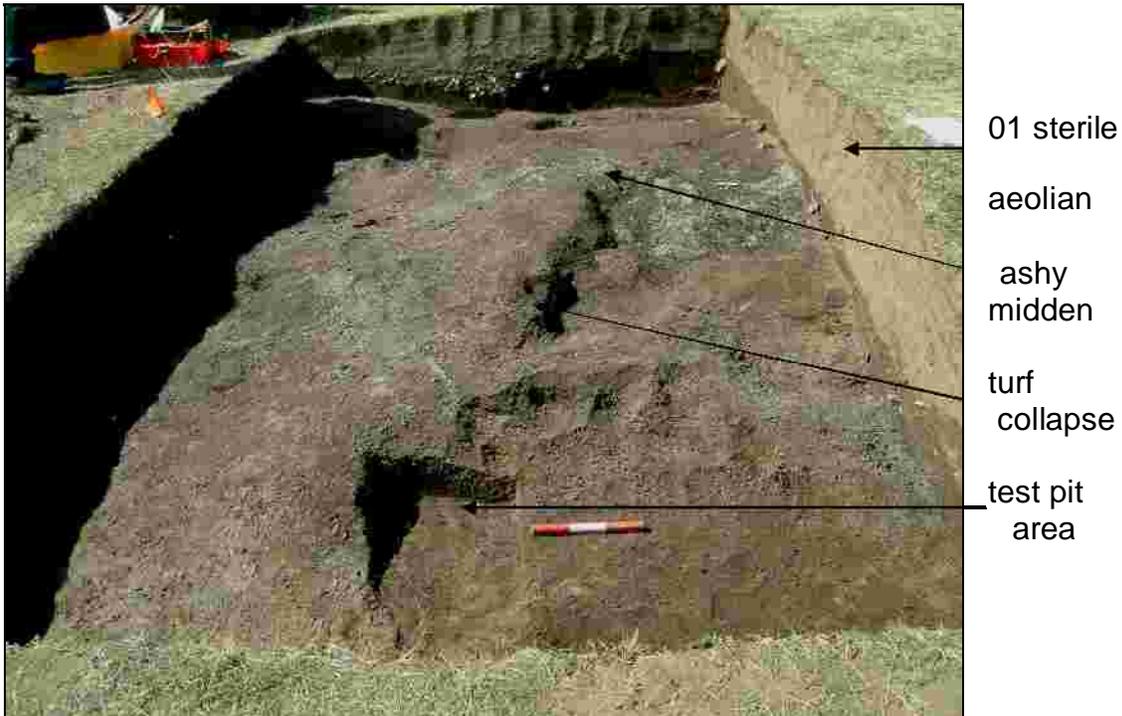


downslope from the NE corner of unit L. The objective this unit was to both establish the limits of the midden observed in unit L and to try to connect some in situ tephra directly to some midden layer. While we have clearly found extensive and productive early layers, we did not have any clear traces of either the LNS or the later V ca 950 grey green tephra (except probably as inclusions in turf blocks). We hoped that by moving downslope away from the human activity and intense erosion nearer the crest we might find a concentration of intact soils and

tephra. This deep pit (nearly 1.75 m total) provided the usual “telephone booth” working and observational conditions, and required expansion. The expansion eventually (thanks to hard work by visiting Stirling students) became a 5 m long trench connecting the L and Q units. Cultural material did extend along the whole unit, and some in situ tephra were observed in the E end of Q, but we cannot yet say that we have successfully connected the to the archaeological stratigraphy. Part of the problem was the discovery of a well built turf wall (making extensive use of the now familiar grey green tephra rich blocks) that cut right across the foot of the midden deposits in L- it appeared literally centimeters beyond the former NE corner of the L unit. It is unclear whether this wall is structural or a yard wall, or how (or if) it connects in any way with the other walls observed in unit L or in the test pits to the North. is clear that we must wait till we are able to expand our units next year and gain a better understanding of this part of the site before we are able to move aggressively attempt to connect tephra with midden layers. One is made grateful for the (in retrospect) easy tephra connections of the Sveigakot midden area M depositions.

Area L Investigations

As we expanded the area L test unit into a full scale 3 x 5 m excavation unit, we were able to clear down to a bone and ash rich surface over the entire area of the unit.



This was clearly a major sheet midden deposit, and the first hours work on it revealed exceptional bone preservation and pH readings right around the neutral (pH 7.0) mark. Fish, bird and mammal bone have been recovered in staggering density, both burnt and nearly fresh condition. There is a high concentration of fire cracked stone, ash and charcoal, but also many unburnt bones and artifacts. The general character of the deposit (and its high bone density) is very similar to the 004 and 003 contexts in the fill of the pit house H, but I believe that we will see a much higher percentage of fish (both freshwater and marine) than in the 003 context already reported. One wonders what the temporal relationship of these two major deposits may be, and how to demonstrate some stratigraphic relation between them.

The work in area L rapidly demonstrates that this part of the site contains major structural remains as well as dense midden. A mass of turf fragments (many containing large chunks



of grey tephra) run in a band across the W (upslope) side of the unit, and are apparently intersecting with layers of midden (bones with near vertical bedding angles, midden running under turf deposits). These prove to be a succession turf wall (and roof?) collapses (contexts 034, 042) above what appears to be an in situ turf wall (040), with the now-

usual deposits of midden being apparently included as wall material collapses (photo looking NE from SW corner of L). Careful dissection of the upper (W) portion of the L unit reveals a wall running roughly N-S along the W side of the unit, with two distinct groups of midden material associated. One group spreads widely over the 040 wall top and spills downslope (E) over much of the unit (031, 035), or at least the W end. Another group of midden contexts are essentially restricted to the W side of the unit (036, 033?) and lie entirely on the W side (interior???) of the in situ wall element. This group may well be the top of fill of a structure extending into the profile the NW and we decide to essentially leave it in place for this year. Excavating deeper in this area will effectively have us excavating a corner of a structure without being able to see the larger plan- a clear receipt for disaster.



Another lump of grey-green tephra rich turf (043) runs diagonally down the L unit (roughly NW-SE) across the midden deposit. Initially we believe that this is merely a chunk of wall fall or turf wall reconstruction debris from the 040 wall above (W), as some midden material appears to run under it. However, as excavation continues, we discover that these apparent run unders are in fact again the result of

melting of an in situ turf wall, and the 043 context steadily emerges as a substantial turf wall in place.

It gradually emerges that the layers on either side of this wall are different,



those to the S are apparently fill of a room or other structure. This deposit is also thus only a partial view of a filled structure, and after confirming that we have a clear structure

edge in sight we decide to leave the full excavation of this side (S) of the 043 wall for a later season.

The main midden excavation effort this summer thus takes place on the N side of the 043 diagonal wall, pulling layers down a steep slope in stratigraphic order.



Dr. Woollett draws profile on the NE side of the L unit. Note the exposed semi-articulated sheep skeleton exposed lying against the steep bedding angle produced by the juncture of the emerging 043 wall and the midden deposit. The head of the sheep was missing, but most of the rest of the skeleton was

present.



At the base of the slope, it is apparent that there is a change in bedding angle developing, first a flattening of the very steep (but accurately excavated) bedding angle of the mid-unit and then a reversal, with a rise towards the wall we now know to be present running along the

1013 line at the E end of the present L unit.



The W end of the N profile of area L shows clear evidence of truncation of the cultural deposit by erosion prior to the deposit of the banded 001 sterile silts. This explains the lack of the expected medieval and early modern tephra above the culture layers and raises the issue of the actual date of the onset of the most massive local erosion.

Finds in the L unit include a very complete composite bone comb (of what Colleen tells us is a 10th c form) and two bone pins from the same context (045) several bits of steatite (including a partial spindle whorl) and a ni strike a light made of actual (thus imported) flint. Also a knife handle made (definitely) out of walrus baculum (penis bone).



All this makes one suspect we are dealing with an early occupation, before they had time to wear out and lose their imported goods (where did they get the walrus bit? Norway? Or Iceland...?). Overall very reminiscent of the M midden material at Sveigakot.

Bone material is incredibly rich, well preserved, and abundant. We will have something like 8-9 boxes from what amounts to a couple of weeks work on what has become a fairly narrow strip of working midden. What are we going to get as

the unit expands to the N, where there would appear to be still more abundant deposits? The contexts are the usual mix of activities, primary and secondary butchery waste, meal consumption debris, some industrial activity (slag, worked bone) and an abundance of fire place cleaning debris (many fire cracked stones, much burnt bone, much wood ash and peat ash, much wood charcoal (including some very large pieces). The archaeofauna also includes many spring seasonal indicators (neonatal cattle and sheep, many bird egg shell concentrations). This may be chance or may again reflect some seasonality in major house cleaning events. As at Sveigakot and Hofstaðir G there are many large and widespread layers but few small basket-dump sized deposits, leading one to suspect that midden formation may be the result of great bouts of household cleanliness rather than a daily regime of small scale dumping.

The bird record may be again interesting, as we are getting a great deal of shell (most unrecoverable as usual, but we did collect several concentrations). In one sq m there were no less than 6 egg sized concentrations- all of the now usual white or pale blue egg. Bird bones I have seen are still overwhelmingly Ptarmigan (grouse), but of course this is a very subjective observation that needs lots of laboratory confirmation.

Fish are also following what has become a familiar pattern- large amounts of freshwater fish (both charr and trout) represented by all bones of the skeleton (including some very large trout jaws- substantial animals). Smaller numbers of sea fish, represented by cleithra and tail vertebrae (we got some very well preserved haddock and cod cleithra). Where is the farm getting access to the trout? How different was drainage then, how much deeper the local streams?

Conclusions and Recommendations

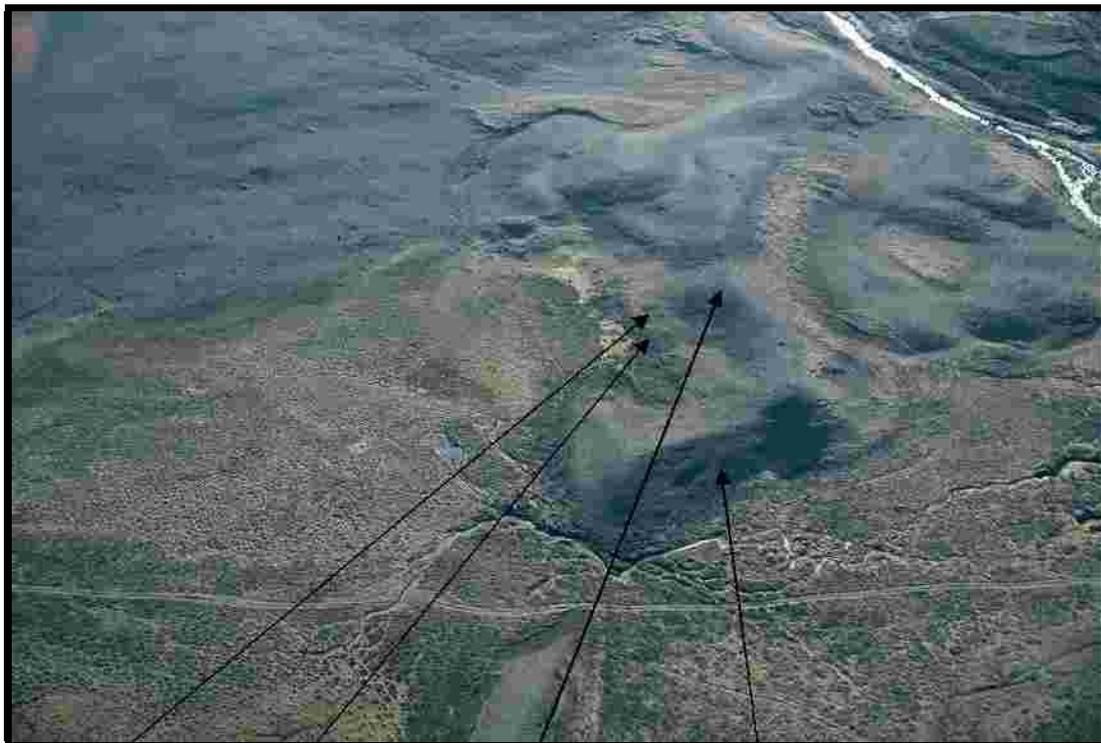
This deposit in area L is arguably one of the richest and most important middens in N Iceland, both in terms of its own antiquity and composition and in terms of its immense value for comparison with the large archaeofauna (of apparently precisely similar date) from Sveigakot and Hofstaðir. While Sveigakot certainly was a middle ranking farm in its earlier phases, it is hard to believe that a high status settler with wide settlement choices open to him (or her) would choose to locate so close to the great lava field to the east. Even if trees and groundcover were far different, the lava would still pose a limitation on the expansion of the farm. The site of Hrísheimar has no such natural limits, and in fact is excellently situated with direct access to what were once wet meadows, trees, freshwater streams and lakes and upland pastures. Even without the evidence of the large scale iron working uncovered by the structures in area M, and the evidence of the presumed grave mound nearby, it would seem that Hrísheimar had far greater possibilities and may well have housed settlers with very serious ambitions. We may thus expect that the story of the failure of these ambitions will be different in detail from the story of Sveigakot, and that a detailed

comparison will provide important insights into the process of first settlement and early environmental impact.

We strongly recommend more seasons of excavation in Hrísheimar middens, expanding the L unit in all directions to better understand the nature of the structures encountered and their relationship to the extensive midden deposits around them. At present we can see how important this site is to Icelandic archaeology, but we cannot see how the different parts articulate. Sustained work is both required and justified.

Illustrations Attached in this file.
 Other Data Included In CD Archive
 Artifact Photos
 All site Photos
 Digital Version of Report

In Paper Archive
 Finds list
 Drawings List
 Context sheets
 All Plans & Profiles



Site Farm mound
Location Area L
 Area A Probable grave cairn
 May 2003 Air Photo (Arní Einarsson) showing Hrísheimar and the surrounding area.