Vatnsfjörður 2005

Fornleifarannsóknir / Fieldwork at Vatnsfjörður, NW-Iceland 2005

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Efni

Adolf Friðriksson og Torfi H. Tulinius:

Vatnsfjarðarannsóknir 2005

Árið 2005 var þriðja ár rannsókna í Vatnsfirði við Ísafjarðardjúp. Sumarið 2003 hófust rannsóknir á fornleifum í landi Vatnsfjarðar. Voru þær liður í nýju samstarfi nokkurra aðila sem standa að félaginu Vestfirðir á miðöldum. Markmið þessa félags er að stuðla að nýjum rannsóknum á sögu og menningu Vestfjarða á miðöldum og að því standa Hugvísindastofnun HÍ, Fornleifastofnun Íslands, Atvinnuþróunarfélag Vestfirðinga, Byggðasafnið á Ísafirði, Fræðslumiðstöð Vestfjarða, Háskólasetrið á Ísafirði og Senter for studier i vikingtid og nordiske middelalder í Osló. Stendur félagið m.a. fyrir ráðstefnuhaldi, útgáfu á fræðiritum og fræðsluefni, og umfangsmiklum fornleifarannsóknum. Í þessari skýrslu er gerð grein fyrir athugunum á fornleifum. Sumarið 2005 var það umsvifamesta til þessa. Barst verkefninu góður liðsauki á árinu, því Fornleifaskólinn, sem Fornleifastofnun og NABO hafa starfrækt í Mývatnssveit s.l. 8 ár flutti sig um set, kom sér upp bækistöðvum í Reykjanesi og varð þátttakandi í rannsóknunum við Ísafjarðardjúp.

Fornleifauppgröftur í Vatnsfirði

Fyrsti áfangi fornleifarannsókna fólst í því að taka saman yfirlit yfir fornleifar á Vestfjörðum og stöðu rannsókna í þeim tilgangi að meta hvaða minjaflokka og staði væri heppilegast að hefja rannsóknir á. Hefur samantektin þegar verið birt[1], en meðal markverðustu minjastaða er Vatnsfjörður við Ísafjarðardjúp, enda er hann með helstu sögustöðum héraðsins. Var því ákveðið að leggja sérstaka áherslu á athuganir þar. Andrea S. Harðardóttir sagnfræðingur hefur tekið saman sögulegt yfirlit og safnað helstu heimildum um Vatnsfjörð og búsetu þar[2]. Ragnar Edvardsson fornleifafræðingur gerði sérstaka fornleifaskrá yfir Vatnsfjörð og fann 52 fornleifar á jörðinni. Er nú fengið gott yfirlit yfir þekktar og sýnilegar minjar í Vatnsfirði[3]. Ragnar stjórnaði jafnframt forkönnun á bæjarstæði Vatnsfjarðar sumarið 2003. Grafnir voru nokkrir könnunarskurðir, sem m.a. leiddu í ljós að fornleifar í bæjarhól og túni eru vel varðveittar og ákjósanlegt rannsóknarefni. Í túninu fundust leifar skála með langeld í miðju.[4]

Árið 2004 var rannsókn haldið áfram á skálaleifum, en þær eru um 100 m norðan við

[1] Adolf Friðriksson (2003). "Fornleifar á Vestfjörðum." Ársrit Sögufélags Ísfirðinga 43: 43-51.

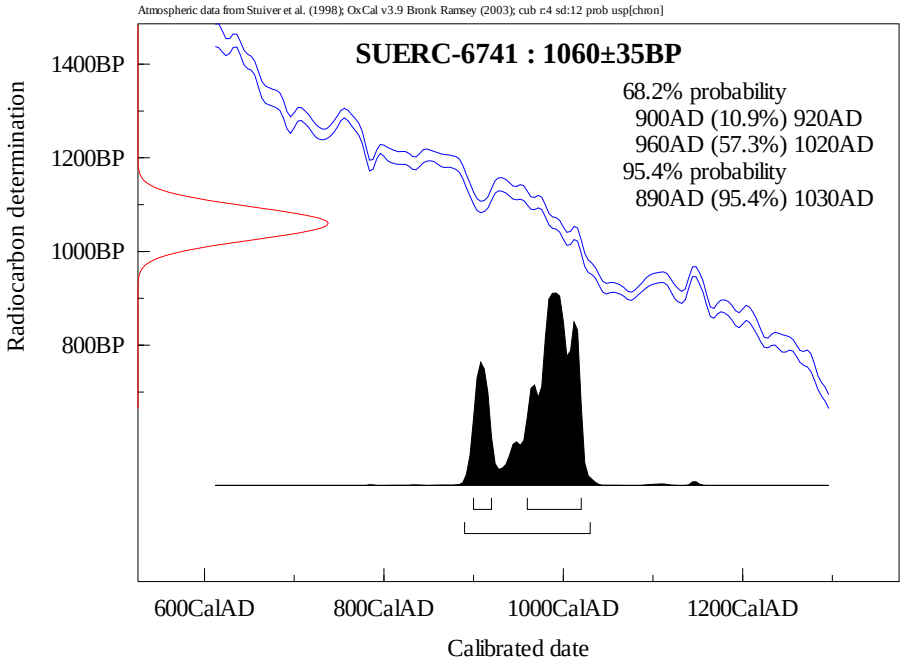
[2] Andrea S. Harðardóttir (2003). Vatnsfjörður við Djúp. Vatnsfjörður við Ísafjarðardjúp. Rannsóknir sumarið 2003. Adolf Friðriksson and Torfi H. Tulinius. Reykjavík, Fornleifastofnun Íslands. FS213-03092: 10-14.

[3] Ragnar Edvardsson (2003). Fornleifaskráning í Vatnsfirði við Ísafjarðardjúp sumarið 2003. Vatnsfjörður við Ísafjarðardjúp. Rannsóknir sumarið 2003….s. 15-29.

[4] Ragnar Edvardsson (2003). Fornleifarannsókn í Vatnsfirði 2003. Vatnsfjörður við Ísafjarðardjúp. Rannsóknir sumarið 2003. …s. 30-47.

gamla bæjarhólinn[5]. Uppgraftarsvæðið var 70 fermetrar að stærð, en hvergi dýpra en 20 sentimetrar. Minjarnar voru aðeins nokkra sentimetra undir yfirborði. Skálinn er um 16 m langur og 6 m breiður að innanmáli og sneri norður og suður. Skilyrði til varðveislu voru ekki góð, jarðvegur var súr og fá dýrabein varðveitt.

Árið 2005 var haldið áfram rannsóknum á leifum skálans og er nú rannsókn á honum lokið ((sjá skýrslu Ragnars Edvardssonar aftar í þessu hefti). Árið 2003 höfðu leifar af annarri byggingu komið í ljós í prufuskurði austan skálans. Var nú uppgraftarsvæðið því stækkað verulega til austurs, eða um 310 fermetra. Suðaustast á svæðinu fundust leifar lítillar byggingar sem voru rannsakaðar að hluta undir stjórn Karen Milek (sjá skýrslu hennar aftar í þessu hefti). Í ljós kom að húsið hefur líklega verið smiðja, en gæti hafa orðið eldi að bráð. Rannsóknir á fornum bæjum á Íslandi hefur takmarkast við húsin sjálf. Hér var ráðist í þá nýjung að grafa fram og rannsaka opin svæði utan húsa. Að þessu sinni var svæðið milli skála og smiðju opnað og til norðurs á móts við norðurgafl skála. Þar komu fram áberandi, tröðkuð mannvistarlög, svo sem vænta mátti, en athyglisvert var að sjá að þar leyndust einnig soðhola og tvö lítil eldstæði. Líklega hefur eldamennska verið stunduð utandyra og má vera að þessi niðurstaða kalli á frekari athuganir á athöfnum fólks utandyra að fornu en hingað til hefur verið gert.



Mynd 1. Aldursgreining (með leiðréttingu) á beini úr skálagólfi.

Allnokkur sýni hafa verið tekin til aldursgreiningar á skálanum og fyrstu niðurstöður staðfesta fyrri ályktanir um að að skálabyggingin sé frá landnámsöld. Sýni tekið úr nautgripsbeini úr skálagólfinu var aldursgreint hjá SUERC rannsóknarstöðinni í East Kilbride og reyndist vera frá 10. öld. Talsvert af gripum hefur fundist, t.a.m.

[5] Sbr. Ragnar Edvardsson (2004) Fornleifarannsókn í Vatnsfirði við Ísafjarðardjúp 2004. Fornleifastofnun Íslands. Reykjavik.

sörvistölur, tilsniðið hvalbein, kljásteinar, fiskisleggja og heill beinprjónn, en það sem kom verulega á óvart var að finna lítinn grip, eða öllu heldur brot úr grip, úr skíragulli (sjá kápumynd). Gripurinn fannst í mannvistarlagi utan við skálann og er þau lög líklega yngri en skálabyggingin. Gripurinn er aðeins um 1 cm í þvermál á hvora vegu, en fagurlega skreyttir og hefur verið hluti af stærri grip. Skrautið bendir til að gripurinn gæti hafa verið írskur að uppruna og frá tímabilinu 850-950.[6]
Í næsta áfanga er ráðgert að ljúka rannsókn á litlu byggingunni og stækka svæðið til suðurs og austurs.

Við undirbúning að frekari uppgrefti á búsetuminjum í Vatnsfirði var gerð tilraun til viðnámsmælinga austan í bæjarhólnum, þ.e. norðvestan við kirkjugarð, og á móts við núverandi íbúðarhús á bænum (sjá skýrslu Ragnars Edvardssonar ofl aftar í þessu hefti). Niðurstöður mælinganna gefa til kynna að talsvert er um rask á svæðinu milli kirkjugarðs og bæjarhóls, skurðir, lagnir og leifar af byggingum frá 20. öld. Hinsvegar kom einnig í ljós svæði sem virðist lítið snortið af raski frá síðari tímum. Að vísu eru niðurstöður fjarkönnunnar sem þessarar aldrei mjög áreiðanalegar, en engu að síður er vert að nota þær sem vísbendingar um hvar skuli opnuð svæði til frekari rannsóknar með uppgrefti.
Eitt markmiða rannsóknanna var að staðsetja öskuhauga hjá eða nærri bæjarhúsum í Vatnsfirði. Teknir voru 35 borkjarnar víðsvegar um heimatúnið og grafnir 3 prufuskurðir. Við athugunina fundust leifar öskuhauga á 3 stöðum, þar af er einn frá víkingaöld en hinir talsvert yngri. Dýrabein úr haugunum munu nýtast til rannsókna á neysluháttum í Vatnsfirði á víkingaöld og síðar (sjá skýrslu T. McGovern ofl aftar í þessu hefti).
Auk uppgraftar og viðnámsmælinga voru gerðar allverulegar athuganir á jarðvegi í túni í kringum Vatnsfjörð. Niðurstöður þeirra athugana liggja ekki fyrir þegar þetta er ritað, en tekin voru allmörg sýni til aldursgreiningar með geislakoli, m.a. til að leitast við að rekja þróun landnýtingar í Vatnsfirði.

Landslag
Í ár bættist við nýr rannsóknarþáttur, landslagsrannsóknir, þar sem lögð er áhersla á að kanna staðhætti í því augnamiði að varpa ljósi á uppruna og þróun byggðar í Vatnsfirði. Rannsóknunum stjórnaði Oscar Aldred (sjá skýrslu hans aftar í þessu hefti). Landslagsathuganir er nýleg en ört vaxandi hliðargrein fornleifafræðinnar, sem heimilar að skoða minjar og fornleifafundi í nýju ljósi og staðfræðilegu samhengi.
Markmiðin sumarið 2005 voru fyrst og fremst að þreifa á mögulegu viðfangsefni og aðferðum, enda rannsóknir sem þessar nýjung í íslenskri fornleifafræði. Ákveðið var í þessri fyrstu lotu að leggja áherslu á nokkra valda þætti.
Við upphaf verksins var lagt í fornleifaskráningu á vettvangi til að afla frumgagna. Fornleifar voru skráðar á vettvangi í Vatnsfjarðardal, Reykjarfjarðardal, á norðurhluta Reykjafjarðarhálss, á Vatnsfjarðarnesi og Borgarey. Minjar á bæjarstæði Vatnsfjarðar voru mældar rækilega upp, en fornleifar út með Ísafirði og Mjóafirði lauslega athugaðar. Loks var gerð rækileg minjaleit og fornleifaskráning á Vatnsfjarðarhálsi. Alls voru 200 minjastaðir skráðir.
Svo sem kunnugt er, þá er hefðbundin fornleifaskráning á Íslandi unnin með þeim hætti að fyrst er gerð rannsókn á fyrirliggjandi heimildum og síðan haldið á vettvang. Við athuganir í Vatnsfirði og nágrenni var gerð fornleifaskráning án stuðnings ritheimilda, m.a. til að komast að því hvort og þá að hvaða leyti sú aðferð gefur

[6] Tekur Dr Signe Fuglesang sérfræðingur Oslóarháskóla í víkingaaldarskreyti undir þessa niðurstöðu.

breytta mynd af minjum á tilteknu svæði. Niðurstaðan í stuttu máli varð sú, að aðferðirnar tvær gefa lítillega mismunandi niðurstöður. Hefðbundin aðferð gefur ítarlegri upplýsingar um minjar næst bústöðum eða innantúns en takmarkaðri upplýsingar um minjar fjær bæ, en við vettvangsskráningu er þetta öfugt: litlar upplýsingar um minjar næst bæjarstæði en meiri utan túns. Í raun kemur þessi niðurstaða ekki á óvart og sýnir að heppilegast er að nota ritheimildir sem fyrr, en leggja jafnframt áherslu á minjaleit á vettvangi. Þar koma loftmyndir að góðum notum, og er hér komið að öðrum áhersluþætti í rannsóknum sumarsins.
Loftmyndir og loftmyndataka eru ákjósanlegar rannsóknaraðferðir í fornleifafræði hér á landi, en hefur furðulítið verið beitt til þessa. Landið er bert, og víða þar sem hvorki skógar né stórbyggingar skyggja á minjar. Var það markmið sumarsins að meta kosti og galla loftmyndatöku við rannsóknir á minjum og menningarsögulegu samhengi þeirra við landið. Keyptar voru loftmyndir frá 1945 og 1991 og hjálpuðu þær við vettvangsskráningu. Auk þess var flogið yfir valin svæði og þau mynduð (skámyndir). Árangurinn var ánægjulegur. Loftmyndir eru í raun nauðsynlegar við hverskyns rannsóknir með GIS aðferðum, en jafnframt fundust minjar sem ekki voru sjáanlegar með góðu móti á jörðu niðri, auk þess sem myndirnar gerðu minjaleit og skráningu markvissari og fljótvirkari.
Rannsóknirnar voru unnar í nánum tengslum við skólastarf Fornleifaskólans í Reykjanesi og er ljóst að þær henta vel sem viðbót við uppgraftarnám nemendanna. Þátttaka í landslagsrannsóknum gefur ekki einungis kost á þjálfun í notkun tækjabúnaðar og staðfræðigagna, heldur eykur einnig yfirsýn yfir íslenska menningarsögu og fjölbreytni menningararfsins.
Niðurstöður landslagsathugana sumarsins sýna að vert er að leggja áherslu á þennan þátt rannsókna í verkefninu Miðaldir á Vestfjörðum á næstu árum. Sem dæmi má nefna að þær auka við mikilvægum heimildum um samhengi sögu og þróunar Vatnsfjarðar við byggðina í kring. Ef skoðaðar eru jarðabækur fyrir tímabilið 1700-1850 má sjá að lítil breyting er á byggðamynstri. Bæir sem voru í byggð á 18. öld, voru enn í byggð á miðri 19. öld, og héldust reyndar flestir í byggð fram á 20. öld. Ef þessi mynd er borin saman við afrakstur vettvangsathuga sumarsins virðist sem byggð hafi víðast haldist á sama stað, þar sem byggilegt var á annað borð, og lítið haggast í gegnum aldirnar. Jarðvegsþykknun á Vestfjörðum er afar hæg, og því er nokkuð auðvelt að gera mjög rækilega skráningu á fornleifum. Ekki hafa fundist minjar um búsetu utan þeirra staða sem kunnugt var um eftir ritheimildum. Á hinn bóginn verður ekki skorið úr um efri aldursmörk búsetu eða minja nema með uppgrefti.
Stærsti minjaflokkurinn í vettvangsvinnu sumarsins reyndust vera hverskyns vörður. Sumar hafa eflaust verið e.k. mið, en flestar vörðuðu leiðir á landi. Ekki er ósennilegt að dýrmætasta framlag áframhaldandi landslagsrannsókna geti einmitt legið í athugunum á leiðum innan héraðs og milli sveita. Leiðir, og hindranir, hljóta að hafa veruleg eða jafnvel afgerandi áhrif á þróun og afkomu byggðar, bæði hvað varðar efnahagslega og pólitíska þætti. Eflaust er það svo að í Ísafjarðardjúpi hafi ein helsta samgönguleiðin legið á sjó. Er það ögrandi verkefni fyrir fornleifafræðinga að lesa úr gögnum sínum hvaða áhrif þessir samgönguþættir höfðu á örlög byggðar við djúpið að fornu.

Í heild má segja að árangur rannsóknanna 2005 hafi verið ágætur og lofi góðu um framhaldið. Í næsta áfanga verða opnuð ný svæði í grennd við víkingaaldarskálann, og haldið áfram athugunum á öskuhaugum og leifum minja við bæjarhólinn. Skráningu fornleifa og athugunum á landslagi verður og haldið áfram og leitast við að afla gagna sem varpað geta nýju ljósi á sögu og menningu Vatnsfjarðar á fyrri öldum.
Alþingi Íslendinga og Rannsóknasjóður Háskóla Íslands veittu styrki til verkefnisins og kostuðu þær rannsóknir sem hér er greint frá. Er öllu því góða fólki sem þátt hefur tekið í þessum verkefnum sem og þeim sem aðstoðað hafa á marga lund þökkuð liðveislan.

Oscar Aldred:

Landscape research in the north west: Vatnsfjörður peninsula

Summary

The landscape of the north west is special. The dynamic of landscape is embedded in cultural activity and natural features. Culture is extended onto a natural landscape, the products from which are numerous. The landscape project is focused on identifying archaeological features through three programmes of work: Field survey, Earthwork survey and Landscape observation. Aerial survey was an additional and was carried out as part of the research programme. In light of this work, an assessment of the approaches used and potential for future work are discussed. The research programme is explored in relation to the concept of place and its relationship to landscape. Another theme is movement, which connects and therefore contextualises place. By giving meaning to landscape through these themes a clearer understanding and perceptions of it are attained. A recurring inherent theme are the topographies that contain particular landscapes, all of which are associated with distinct activities and cultural features. Landscape, seascape, methods and practice are all explored within this report that summarizes the work carried out in 2005.

Figure 1. Looking north from Vatnsfjarðarháls into Mjóifjörður

Introduction

The landscape work carried out in 2005 was one part of the field school at Vatnsfjörður. It is an exploratory project to assess the potential for continuing landscape scale research in the area. This report focuses on the field school element of the work, as well as highlighting the main research results connected with those elements that involved students from the field school. The landscape project was integrated into the field school programme to allow students to gain experience in investigating archaeology at a landscape scale. The landscape programme primarily

involved fieldwork, lectures and original research by the students.

Three programmes of the landscape work were carried out: Field survey, Earthwork survey and Landscape observation. Aerial survey was an additional level of work carried out as part of the research programme. In light of this work, an assessment of the approaches used and potential for future work are discussed.

Figure 2. Vatnsfjörður landscape, looking north-east towards Vatnsfjörður farm [2005_run2_013].

Research themes

The north west presents several challenges to the study of landscapes in Iceland. The historical development of the land was slightly different from other regions. Subsistence was based primarily on fishing as opposed to farming. Even though the marked contrast is not vast, it does however necessitate a different approach to understanding the landscape - one that is integral to seascapes and natural environment. Although fishing was for many centuries the dominant form of subsistence, farming has had a large contribution to play in the development of the landscape, particularly in later periods. The study of topography and the environment is another key agent in understanding the landscape. It has similarly had a strong influence on the development of place, and in the north west has been a limiting factor in land use and subsequent farm expansion. The dichotomies between fishing and farming, nature and culture, therefore are important one to study in the north west using landscape as a framework. The development of the cultural landscape therefore is considered within an approach that compares and contrasts the different types of topographies, as well as the types of subsistence and land uses. This approach is used to derive cultural meaning and an archaeological understanding of landscape.

The research carried out in 2005 contained multiple elements. On the one hand a study of an archaeological landscape was made, one that did not draw on historical documents *before* field work. Survey was conducted purely by observation, either on the ground or from aerial sources, and followed an approach based on landscape learning; empathy and perceptive qualities of landscape. By adopting this approach it became increasingly clear that understanding the movement between places and through the landscape, was the key theme. Another theme was based on determining the meaning of landscape; how it was perceived and understood by the individuals and communities in the study area. This was understood by assessing

the role that sites and activities played, particularly those associated with folklore, through character of the natural landscape; different topographies that might highlight significant associations. Connections between movement and meaning were derived from the places people lived and worked.

Field survey

Field survey was carried out around the immediate the area of Vatnsfjörður. It was decided to align the objectives of the survey in conjunction with the research themes movement, place and meaning of landscape. The survey in 2005 recorded two hundred sites which included descriptions on their form, function, preservation and dimensions. In addition each site was located using handheld GPS and photograph taken.

Before fieldwork the vertical aerial photographs were examined, but these proved too large scale to identify individual sites, but instead gave a general overview of the survey areas. As one of the main aims was to survey without prior knowledge of the landscape from documents, using purely observation to identify sites the vertical aerial photographs proved useful. By adopting this approach to survey, the movement across the landscape was used to attain a sense and understanding of how people might have moved in the past and therefore identifying their landmarks in the process. Trails of cairns and likely locations to other sites, such as sheilings or shelters, were followed and consequently surveyed.

Figure 3. Field survey in action.

The field survey took place over several weeks and in different areas. One area, called Vatnsfjarðarháls on the ridge above the Vatnsfjörður was extensively surveyed. Other areas were also surveyed: Vatnsfjarðardalur, Reykjarfjarðardalur, the northern part of Reykjarfjarðarháls Vatnsfjarðarnes and Borgarey. In addition a rapid survey of the coastal sites that lay outside the main farm area took place, along the fjords of Ísafjörður and Mjóifjörður within the Vatnsfjörður penisular.

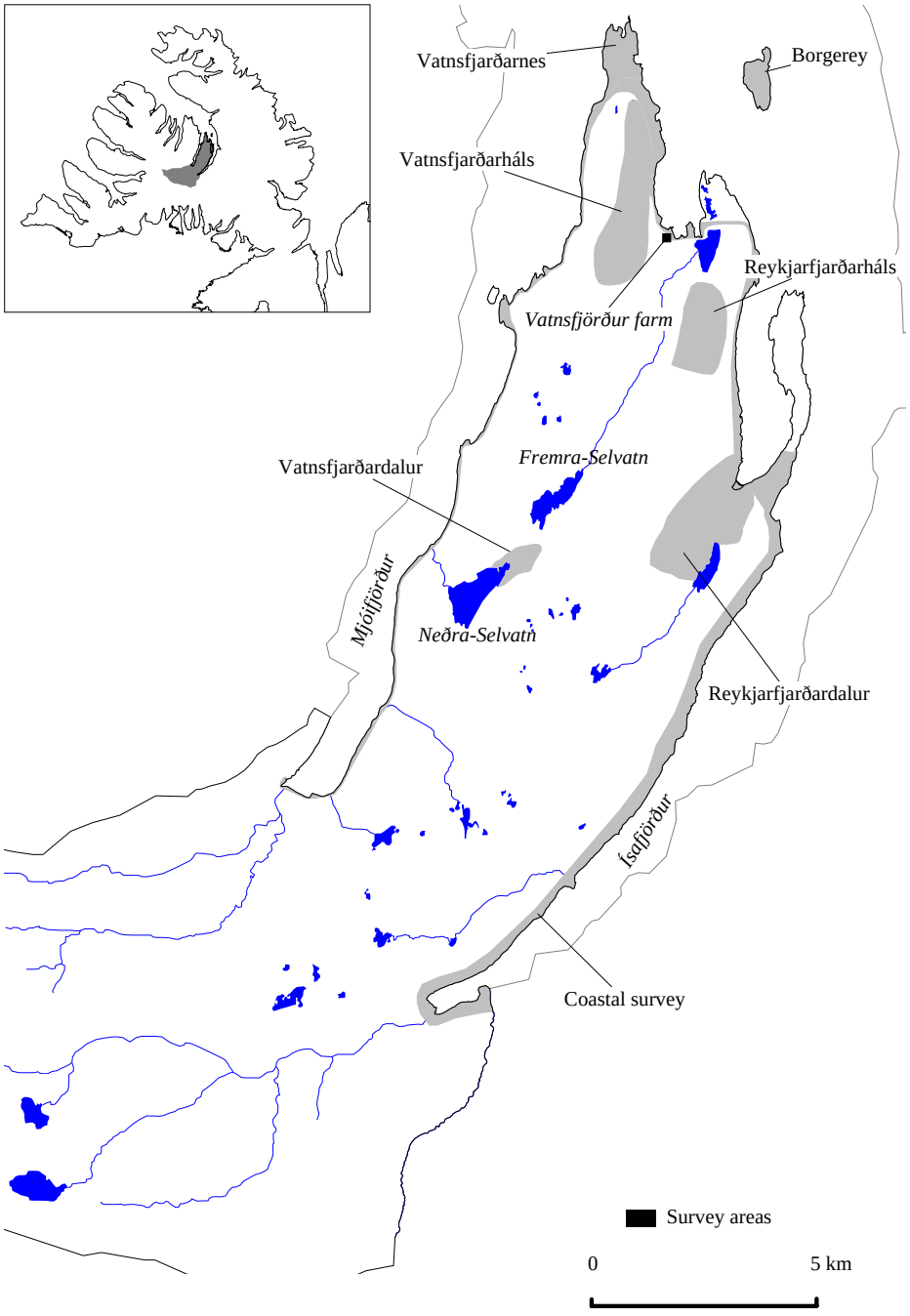


Figure 4. Field survey areas.

Cairns were the most common site type surveyed. These related both to the movement of people and the marking of land for different purposes; the multi-functional aspects of them however is acknowledged and it is difficult to suggest precisely what their functions were as individual monuments. Two sheilings were also surveyed which included a large number of sites. In addition the coastal survey produced sites relating to the sea. Also one or two farms were surveyed. The field

survey covered a range of different topographies. These included sea and shore, valley and dale and upland ridges (highland areas were not surveyed on the field but only by air in 2005). The contrasting topographies and the range of sites that were surveyed will allow reflections to be made on space and place with the aim of demonstrating the general character of landscape. Such an approach will create speculation about the broad understanding of cultural processes seen in the adaptation and uses of the natural environment. This aspect of the research the survey work proved of particular value. What follows is a brief summary of the results found in each survey area.

Vatnsfjarðardalur
The area that was surveyed in Vatnsfjarðardalur lay towards the south of the valley between the ridges of Starvatnsháls and Reykjarfjarðarháls. Several farms lie either side on the slopes of Vatnsfjarðardalur. In the area between the two lakes, Neðra-Selvatn and Fremra-Selvatn, Vatnsfjörður's sheiling, in Vatnsfjarðardalur, was located; see figure 4. Vatnsfjarðarsel had clearly been occupied and abandoned sometime in the twentieth century, but there was also evidence of earlier occupation. The sites that formed the sheiling consisted of the usual farm type structures: a farm house, sheep houses and a boundary built of stone and turf, with a wire fence on top. In addition a small structure outside the boundary, a small enclosure attached to the boundary, a water house and a vegetable enclosure were also surveyed. Further towards Fremra-Selvatn the remnants of a boundary were seen but which for the most part had been dismantled and was only partially preserved next to the lake.

Reykjarfjarðardalur
An extensive network of cairns, a sheiling site and other shelters and structures were seen in Reykjarfjarðardalur. The cairn network marked routes up the valley, on the west from Reykjarfjörður to the sheiling site at Reykjarfjarðarsel. On the east side the marking was not as clear but indicated perhaps routes from Svansvík to Svansvíkurvatn. At the southern end of Reykjarfjarðardalur a small cluster of slight earthworks were seen. Though they were badly preserved the clustering suggests a small dwelling place. These coincided with a route that moved from Reykjarfjarðardalur into Vatnsfjarðardalur, towards Neðra-Selvatn. The sheiling site at Reykjarfjarðarsel, like Vatnsfjarðardalur, showed evidence of more recent occupation and abandonment. A sheep house with a rectangular room and a semi-rectangular sheep area with a stool was of a type that looked much earlier than the surrounding structures. Another sheep house, with a double stool was also seen in the sheiling, presumably relating to the later phase of activity.

Vatnsfjarðarháls
Vatnsfjarðarháls' topography consists of long ridge west of Vatnsfjörður farm, that runs north to south, lying approximately 200m above sea level. The whole of the ridge was surveyed systematically by following suspected routes and access points using the landscape observation approach. The south-eastern part of the ridge had a good number of sites, mostly connected with movement and landmarking. The western side of the ridge was not surveyed, although no immediately obvious sites were seen from the ridge between it and farm zone along the coastal edge.

Figure 5. Cairn (foreground) and boundary stone (background) on top of Vatnsfjarðarháls [UID 117].

On the top of Vatnsfjarðarháls a large natural stone with a small flattened cairn lying on top of it was surveyed. The stone was different to the surrounding ones, and was positioned to suggest a boundary marker, probably between Vatnsfjörður and Skálavík (figure 5). In addition, a GIS viewshed analysis from the cairn demonstrated that the cairn was not visible from either side of the ridge but only along its top and from the north. The interpretation of this analysis entertains the idea that it may have been a land marker to be seen from the sea for navigation into either Ísafjörður and Mjóifjörður fjords; insert image. The cairn may be part of a network of navigation markers and connected, in particular, with the cairn interpreted as a *dys* (sea navigation marker) on the northern part of Reykjarfjarðarháls, south-east of Vatnsfjörður.

On the south-eastern slopes of the ridge lies a small enclosure, with a semi-rectangular structure and a cairn. These were located next to a track marked by cairns that gave access to a gap between the ridges of Vatnsfjarðarháls and Starvatnsháls and a track that lead to Skálavík and Mjóifjörður. Part of the track lies along a boundary, marking the division between the farms of Vatnsfjörður and Miðhús. Another route marked by cairns lay further to the north than the boundary track. This was marked with a cairn every 100 to 190 m, and when approached from Vatnsfjörður 3 natural stones in a line with a constructed cairn marking the route directly towards the farm and church at appear; today a gateway lies at the beginning/end of the route next to Vatnsfjörður.

The farms of Sveinhús and Halshús were also surveyed as part of the student tuition. The farms contained farm structure/mound, small enclosures, as we as water features. Sveinhús's farm structure was still upstanding. At Halshús the farm had

been abandoned, perhaps sometime in the earlier part of the twentieth century. At Sveinhús an area of plough marks were seen on the ground but more clearly from the air. These are likely to relate to small subsistence cropping, or perhaps in relation to land improvement and drainage. Sveinhús also had a stone homefield boundary. See Landscape observation section for more detail on Sveinhús.

Reykjarfjarðarháls

Survey was concentrated only on the northern end of Reykjarfjarðarháls, and here another network of cairns, enclosure and other small structures were recorded. The cairns provided several functions, in marking routes over the ridge and boundaries between farms as well as aiding in navigation from the sea. A large *dys* was recorded spanning 5m width and 1.8m in height at the head of one of the lava steps (figure 6).

Figure 6. Boundary and navigation markers on top of Reykjarfjarðarhál s [UIDs 148 – 149].

It has been suggested that this was part of a network of sea markers. This was indicated by a viewshed analysis from this point that suggested that it would have been visible in the Vatnsfjörður bay. This was contrasted with another marker on top of Vatnsfjarðarháls which was not visible in the bay but further out into the fjord. It seems likely therefore that these two sites were part of a navigation network. It is also likely that the *dys* was a boundary marker between Sveinhús and Reykjarfjörður farms; lies today on the farm boundary line. On the western slope of Reykjarfjarðarháls, north of Halshús, two cojoined enclosures were recorded. The enclosures were constructed from stone incorporating the natural features into its walls, which appears to be a typical feature in this region.

Vatnsfjarðarnes

The promontory of Vatnsfjarðarnes contained several features, including several mounds, cairns and fishing booths. The exposed nature of the promontory give the

occupation of it little chance. Activity in this landscape was focused on fishing and access to and from the sea. Two booths, close to one another, lay on the northern tip of Vatnsfjarðarnes. They were accompanied by a cairn, presumably part of the navigation network, or as a landward guide from the south to the booths. Another cluster of fishing booths lay on the west side of Vatnsfjarðarnes, in the Mjóifjörður side. A small cairn and boat house also formed part of this small fishing complex.

Borgarey

The island of Borgarey lies 4 km off the coast north-east from Vatnsfjörður. A number of structures and a boundaries were seen on the west and south sides of the island (figure 7). One or two other features lay on the north and east sides. A farm complex lay beneath a lava ridge and had been abandoned probably sometime in the twentieth century. Farm structures and fishing related features were also surveyed. Of special note was a folklore site called the bible stone, which was a flat stone that hunters would touch and speak to ensuring successful hunting. Today the island is home to a puffin colony, as there was in the eighteenth century, and clearly the island was a valuable resource area (Jarðabók pp. 215-216).

Figure 7. Borgarey from the air, looking east [2005_run2_007].

Earthwork survey

The last farm buildings on the site of the old farm mound at Vatnsfjörður farm were measured/surveyed using tape off-settings and 1:50 scale drawings with hashering (figure 9). The complex consisted of partial remains of four structures; three were recorded (figure 10). Building a) was a concrete structure, with a base surviving on 3 sides, with its western wall standing approximately 2m high. An earlier structure contained it, though this was very badly damaged and survived only on the south side. Building a) was approximately 7.5 by 5 m.

Figure 8. Earthwork survey.

Building b) lay towards the west of a), and was accessed by a small passage between the northern wall of building a) and a ditch. Building b) was approximately 8.5 by 5 m, with three exists on the south, east and west. Within it there was a wooden lean-to structure located in the north west corner. The building was partially constructed from turf and stone, as well as concrete. It stood approximately 2 m high.

Building c) was attached to building b) through a small entrance. It was constructed from turf and stone, and stood approximately 2 m high, and its dimension were approximately 5 by 3 m. In addition to the farm complex, detailed earthwork surveys were carried out on two faint remnants of structures close to the excavation area in 2005. These two structures, 6 by 4 m and 7 by 6 m, were barely visible and only until the vegetation had been flattened was it possible to see them.

In addition, a sketch earthwork survey of the farm complex was made. This entailed approximate sketching with measured pacing on any visible earthworks or possible archaeological features in the area west of the upstanding farm structures. Approximately fifteen structures were surveyed, though several of these were incomplete. Several mounds that might be middens were identified. Drainage ditches, and the homefield boundary were also surveyed (figure 11). The sketch survey will be useful in formulating a research plan for the excavation of the farm mound in subsequent field seasons.

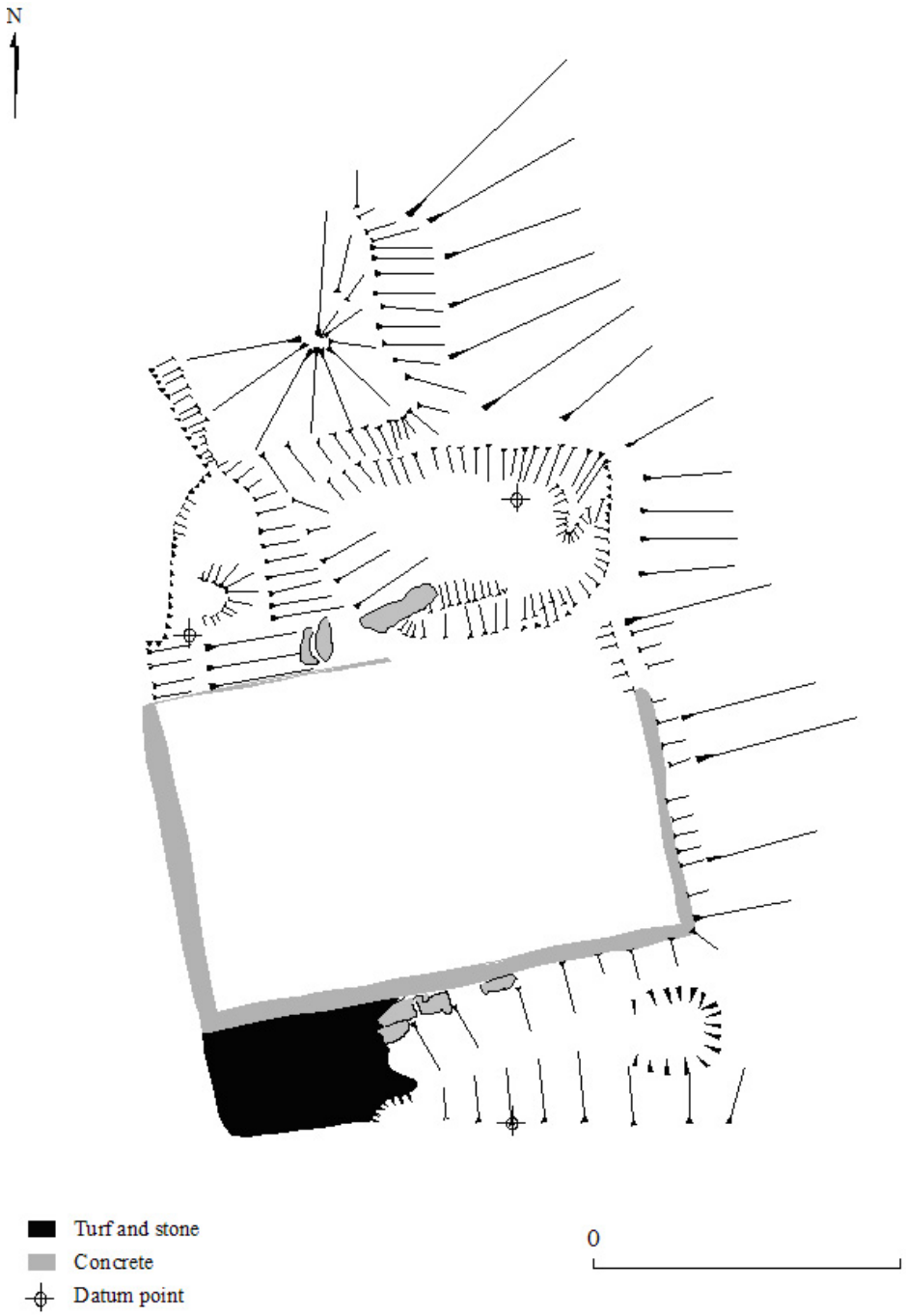


Figure 9. 1:50 earthwork survey of building a.

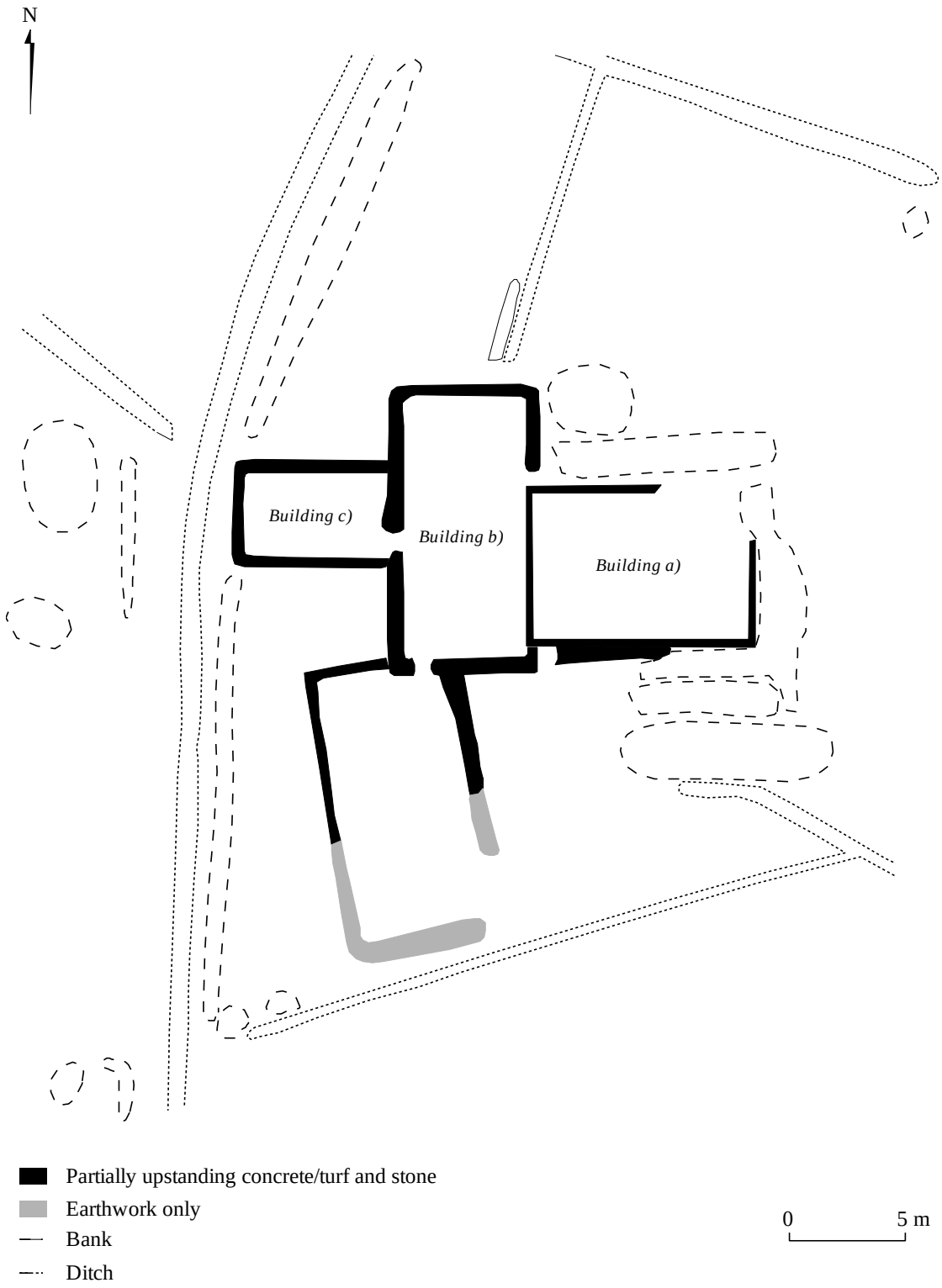


Figure 10. Upstanding farm complex. Buildings a), b) and c).

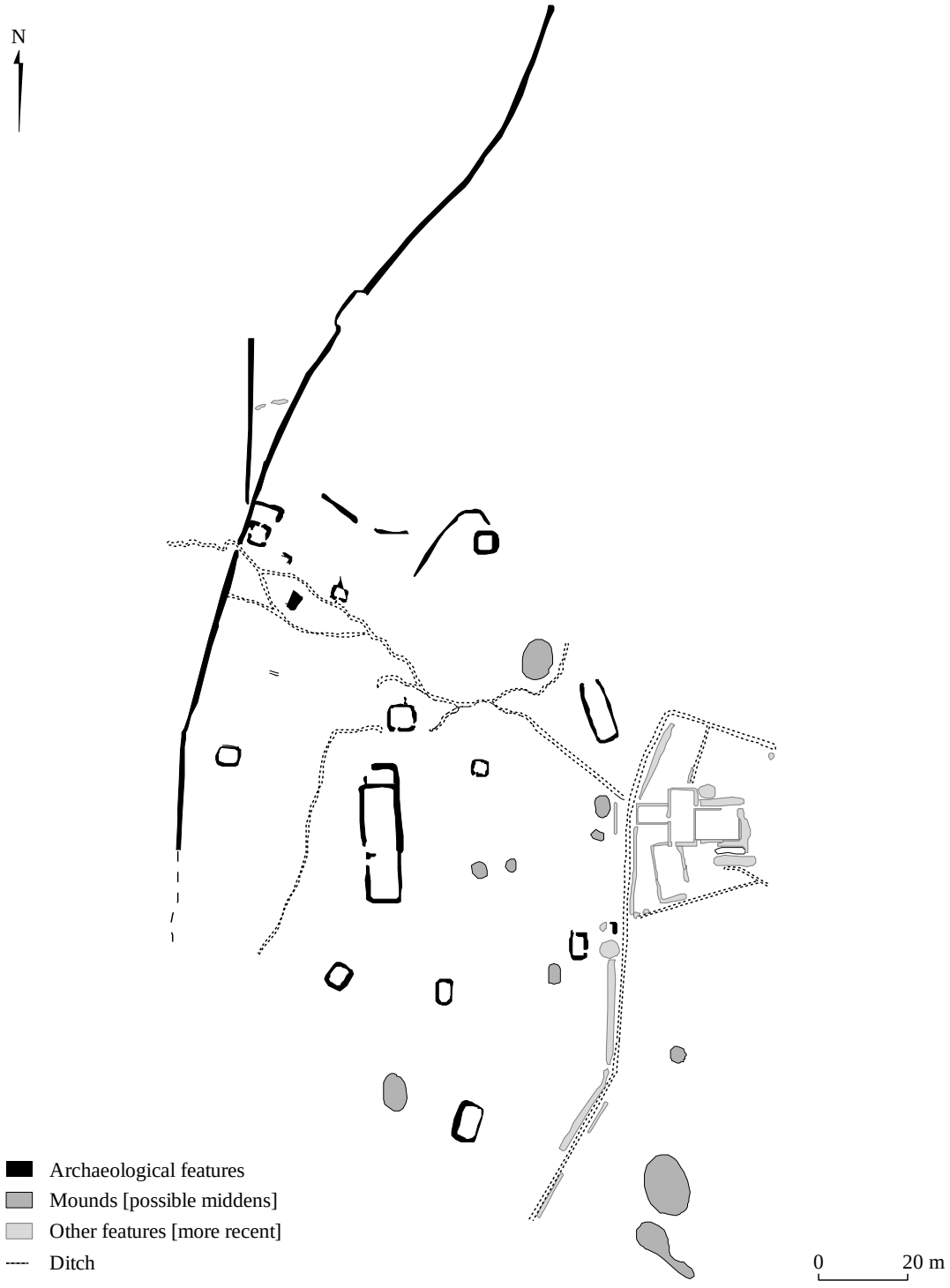


Figure 11. Rapid sketch earthwork survey of Vatnsfjörður farm mound.

Landscape observation

The recognition of undocumented cultural features and archaeological sites through landscape observation is a fundamental part of the field survey process. This occurs on several levels, but the field school programme focused on teaching techniques in how to recognise features and in explaining their possible functions and uses. Landscape observation was centred on the farms of Sveinhús, located east of Vatnsfjörður. Hálshús was also visited.

Figure 12. Sveinhús.

Sveinhús consists of a farm house, and several other outbuildings including a possible sheep house and an enclosure, with an area of plough ridges and homefield boundary (figure 12). Several phases of occupation were apparent at Sveinhús. A farm house was still intact, constructed from wood and corrugated iron but utilising an older turf and stone structure. At least two phases of boundaries were seen. An outer stone built boundary, that enclosed the farm area, was seen. Another boundary on the inside edge of the stone built one was seen from aerial photographs; this was only partially observed from ground surface (figure 13).

Figure 13. Sveinhús from the air [2005_run2_033].

Aerial Survey

A major part of the research programme which in turn assisted the field school elements was aerial photography. Archaeological survey can greatly benefit from the reconnaissance of the archaeology from the air prior to fieldwork. Two approaches were taken in 2005. Firstly, vertical photographs from 1991 were reviewed. This allowed the survey area to be looked at prior to survey, which aided in the selection of targeted areas for fieldwork and identifying the character of the natural environment. Secondly, new photography was taken under good lighting conditions. This identified new sites and created good publicity images. Both approaches were an essential part of identifying archaeological sites for the survey programme and their mapping into GIS.

Figure 14. Vertical aerial photograph. Vatnsfjörður farm area.

The vertical photographs dating from 1991 were taken from 18,000 ft. Four runs were used: 6800 – 6810, 6819 – 6830, 6768 – 6777, and 7546 – 7555. In addition to these, a photograph from 1945 was purchased for the area around Vatnsfjörður, though it was not clear enough to identify more discrete archaeological features. On the whole it was difficult to identify discrete archaeological features without prior

information, either from obliques or field survey data. It was good at identifying farm areas, possible routes across the lava benches and indicating areas where the natural topography suggested the likelihood of cultural activity. It therefore served as a useful reconnaissance tool prior to fieldwork.

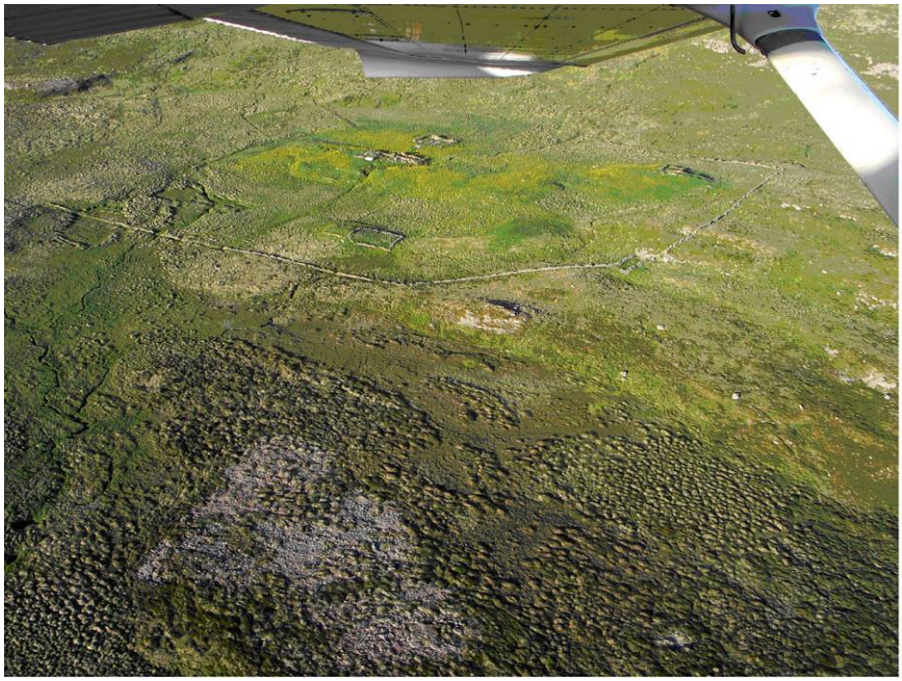


Figure 15. Oblique aerial photograph. Vatnsfjarðarsel looking north [2005_run2_008].

The capture of new photography from the air was of great value. The survey of the landscape from the air identified features that were difficult to observe on the ground which were or could be targeted during field survey. The photographs were also useful in placing the archaeological sites within a broader setting. This created more speculation of the function and type, as well as achieving a sense of context and spatial patterning between numerous natural and cultural features. Two runs were carried out in 2005, though the quality of the photographs was variable. The obliques were used extensively in mapping earthworks and in the preparation before fieldwork.

Discussion

The landscape project produced a relatively large collection of information from desk-top and fieldwork. The information also came in a variety of different forms – survey gps and description data, as well as detailed earthwork mapping. All of this data being useful to addressing research questions and problems. The discussion is focused on several aspects. Firstly, an evaluation is made about the research approach and the potential for continued study. Secondly, discussion is centred on the themes place, movement, and the meaning of landscape in the north west.

Assessment of survey practice

It is argued that the approach that was used to survey was an archaeological one

that was not biased by documentary or prior knowledge of the historical context of settlement or cultural activity in the region. In this it was using the landscape itself as the primary source. Given the results and findings from the survey, the important question to assess is whether the approach to survey can compliment existing practices that are heavily dependent on documentary preparation? Unfortunately, the fieldwork in 2005 did not fully answer this question, and if this to be answered more fully, then a strict sampling procedure would need to be implemented and tested against documentary based survey practices. The survey in 2005 did demonstrate, however, that the areas outside the farm homefield were well suited to the archaeological approach to survey, while it also suggested that the survey of the area within the homefield is better suited to the documentary approach. A systematic approach to survey that relied on landscape observation and learning, complimented existing practices, but it was more successful in discovering way and route finding in the landscape, which it is argued are a fundamental aspect to understand the meaning of landscape. The potential for future work therefore would be dependent on further testing of the approach, as well as using normal survey approach to the farm; the important area to identify would be where an archaeological centred and a documentary focused survey approach overlapped with one another.

Research themes

The spatial structure of the landscape in the north west demonstrates that localised development has been centred around places that have been, in all probability, occupied for very long periods. There are only few areas of land that were able to sustain the farming community, and these places all contain evidence of activity; most places are still occupied though several have been abandoned. Therefore, although the archaeological evidence is derived from the farming and settlement community, this is not the main research theme that is being discussed. Of much more importance, perhaps biased in part by the survey approach used in 2005, is the ways in which past people moved across the landscape, from place to place. In considering this also aspects of activities such as farming and fishing that were dependent on cultural as well as natural landmarks are discussed. Wayfinding, navigation and journeying attest to an archaeological understanding of landscape that is centred on the meaning and dwelling within it, rather than one that is too abstract from the working landscape. It is clear from first impressions that the north west is a harsh natural environment to live in, and that access to resources, movement of people and the dynamic of places have formed a fundamentally important network for existing in the landscape. Each research theme is discussed in turn, concluding with a landscape overview derived from the 2005 fieldwork.

Place

Place is discussed in relation to settlement, such as farms, but also in relation to areas that can be directly associated with specific activities that relate to farm and fishing places, for example sheilings and fishing complexes (boat house, fishing booth). These places are discussed in relation to their reflections on space and place situated within different topographies.

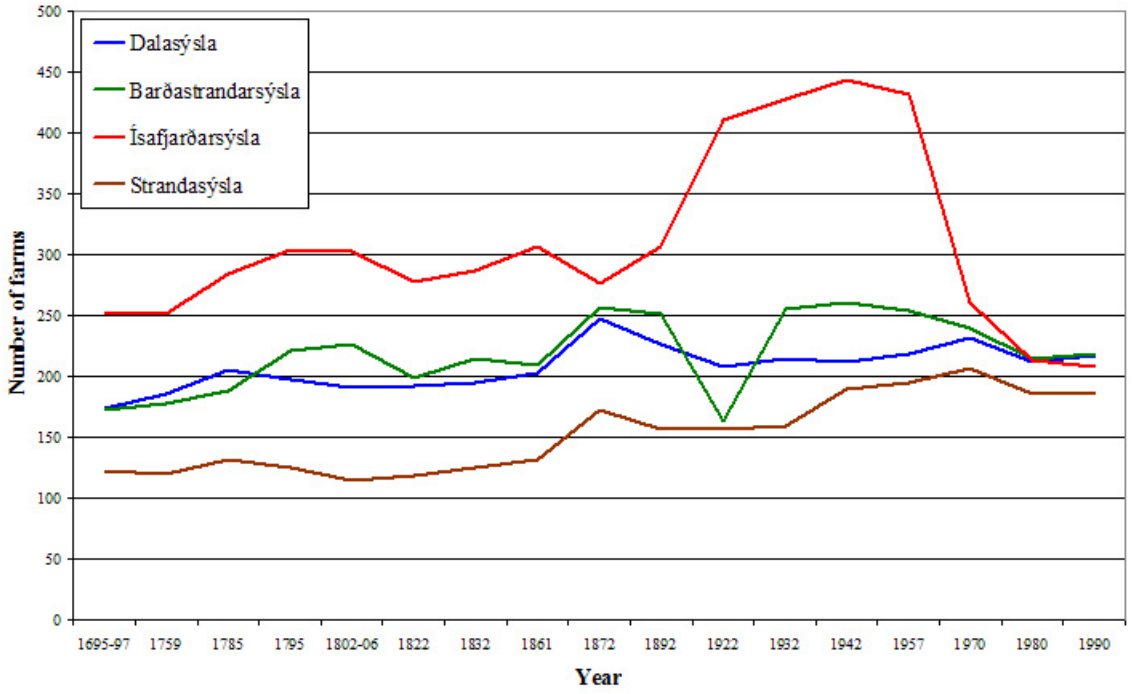


Figure 16. Farm abandonment. Source data derived from Hagskinna 1997, 258-261, table 4.1.[7]

The dynamic of settlement in the north west suggests that there is a relatively secure acceptance concerning the continuity of place. By comparing survey documents between 1710 and 1847 for Vatnsfjarðarhreppur (later Reykjarfjarðarhreppur and now Súðavíkurhreppur) Borgarey is not listed though it is probably subsumed into Vatnsfjörður. There is only growth, such as at Vatnsfjarðarsel. The overall pattern of settlement in 200 years remains approximately the same. A similar pattern is apparent in the whole region of Ísafjarðarsýsla, where there are small fluctuations but more or less continuity (figure 16). Ísafjarðarsýsla by contrast to other regions has a marked increase in the number of farms at the end of nineteenth century, only reducing back to late nineteenth century levels in 1970. From thereon, as in the rest of the north west Iceland, the number of farms have continued to fall. Continuity in the numbers of farms suggests that occupation was sustainable for the natural environment and that land available for growth and expansion was limited. Expansion therefore was into land that was not particularly good for the subsistence basis of the Icelandic farm and that these areas were abandoned before others.

The settlement pattern from the 19th century, and perhaps earlier, in the study area (Vatnsfjörður peninsula) is predominately coastal, with only two farms, which were both sheilings, located well inland. The distribution demonstrates a clustering around the north eastern tip of the peninsular and around Vatnsfjörður and in Vatnsfjarðardalur. There is a relatively good correlation with areas identified from satellite imagery with potentially good grazing land and the areas around Vatnsfjörður and Vatnsfjarðardalur.

The distribution of farm sites correlates well with land that is suitable for small scale

[7] Hagskinna 1997 Sögulegar hagtölur um Ísland. Hagstofa Íslands: Reykjavík.

farming. The availability of this type of land is limited and therefore growth and expansion can only occur in particular areas. One area where evidence of expansion took place is the *dalur* – valley – areas of Vatnsfjarðardalur and Reykjarfjarðardalur at the sheiling sites relating to Vatnsfjörður and Reykjarfjörður. Topographically these areas contain good grazing areas, but as they lie at a distance from the fishing areas their expansion as dwelling places was probably limited. This fact perhaps suggests why expansion is only limited and appears to have been relatively late in date – the in 18th and 19th centuries only. The farms located close to coastal areas appear to have been successful and, if the excavations at Vatnsfjörður suggest, have early origins. This combination of limited land for small scale farming activities with close proximity to coastal areas is perhaps a prerequisite for successful settlement in the region.

Several farming activity places, particularly those beyond the immediate farm area that included small enclosures as well as structures, were found. The Vatnsfjörður area was the most extensively surveyed so the majority of these types of places were found there. They tend to be sheep structures, sometimes associated with an enclosure. Several of the sites made use of the natural features which were included in the construction of the enclosure or structure. Such sites tended to be located at a distance from the farm but not so far as to be inaccessible in bad conditions. They also tended to make use of the natural environment around them by incorporating natural features into their structures and enclosure walls.

Coastal places lie directly on the coastal edge. Most of these sites relate to fishing, such as fishing booths (10 sites) and boat houses or drying racks (10 sites); see figure 17. Also, there are several cairns that were probably used as navigation markers. A system of cairns for sea navigation has been interpreted for the large monuments on the high inland areas that have clear views across the fjord. Smaller cairns, however, that lay close to the coastal edge may have been used for local navigation, perhaps for fishing sites or for boat landing. During the rapid coastal survey the first indications are that these types of fishing booth sites tend to be located in northern part of the peninsula, around the area of Vatnsfjarðarnes. Many of the farms that located near to the coast tend to have a boat house. Two areas, Vatnsfjarðarnes and immediately east of Vatnsfjörður farm on a small promontory, may have been associated with burial.

Small mounds and clusters of stones that do not look as if they have been formed naturally are indications. Their size, approximately 2m in length, as well as their location suggest this interpretation, though without more conclusive evidence it is difficult to be certain.

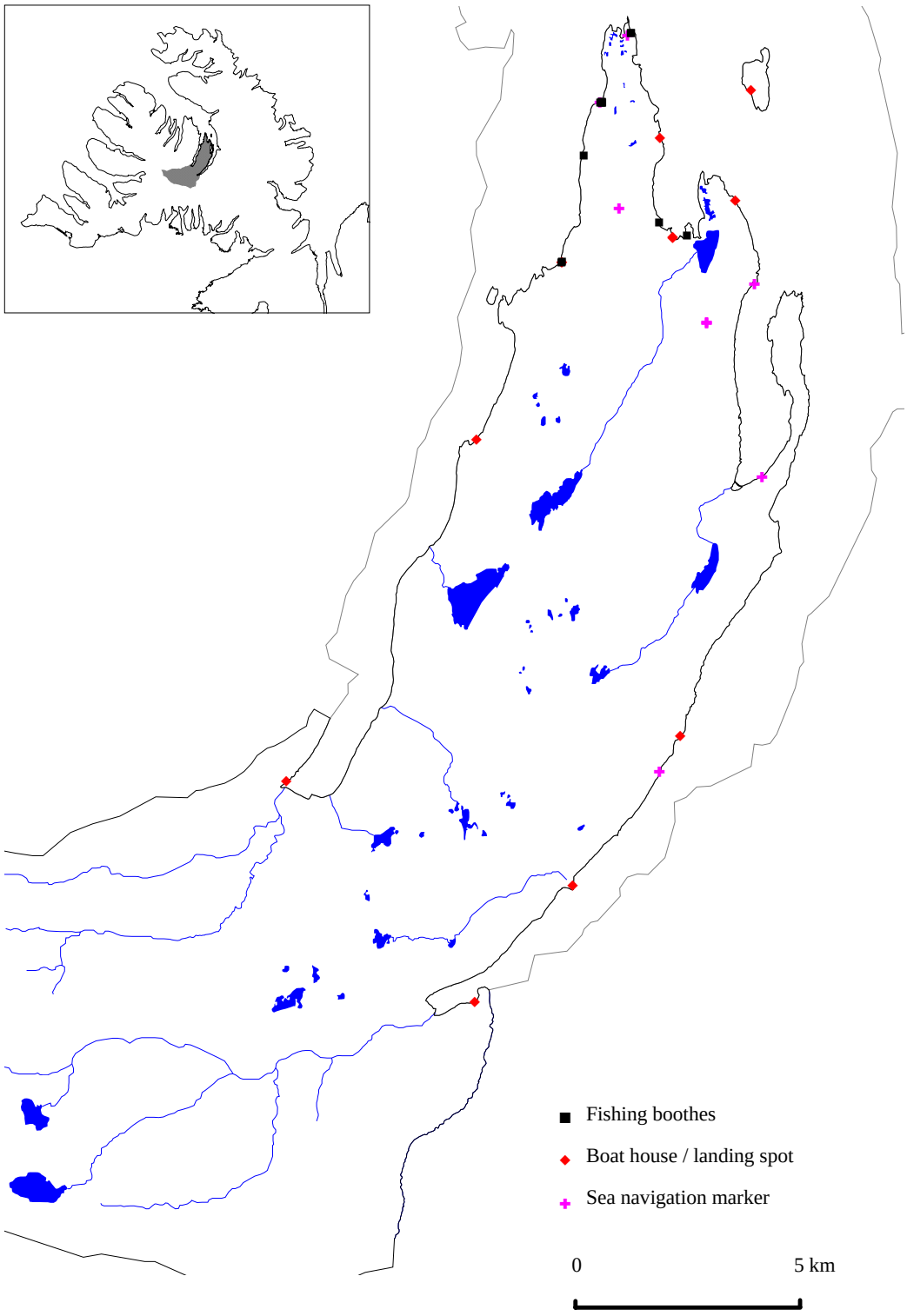


Figure 17. Sites relating to sea and fishing

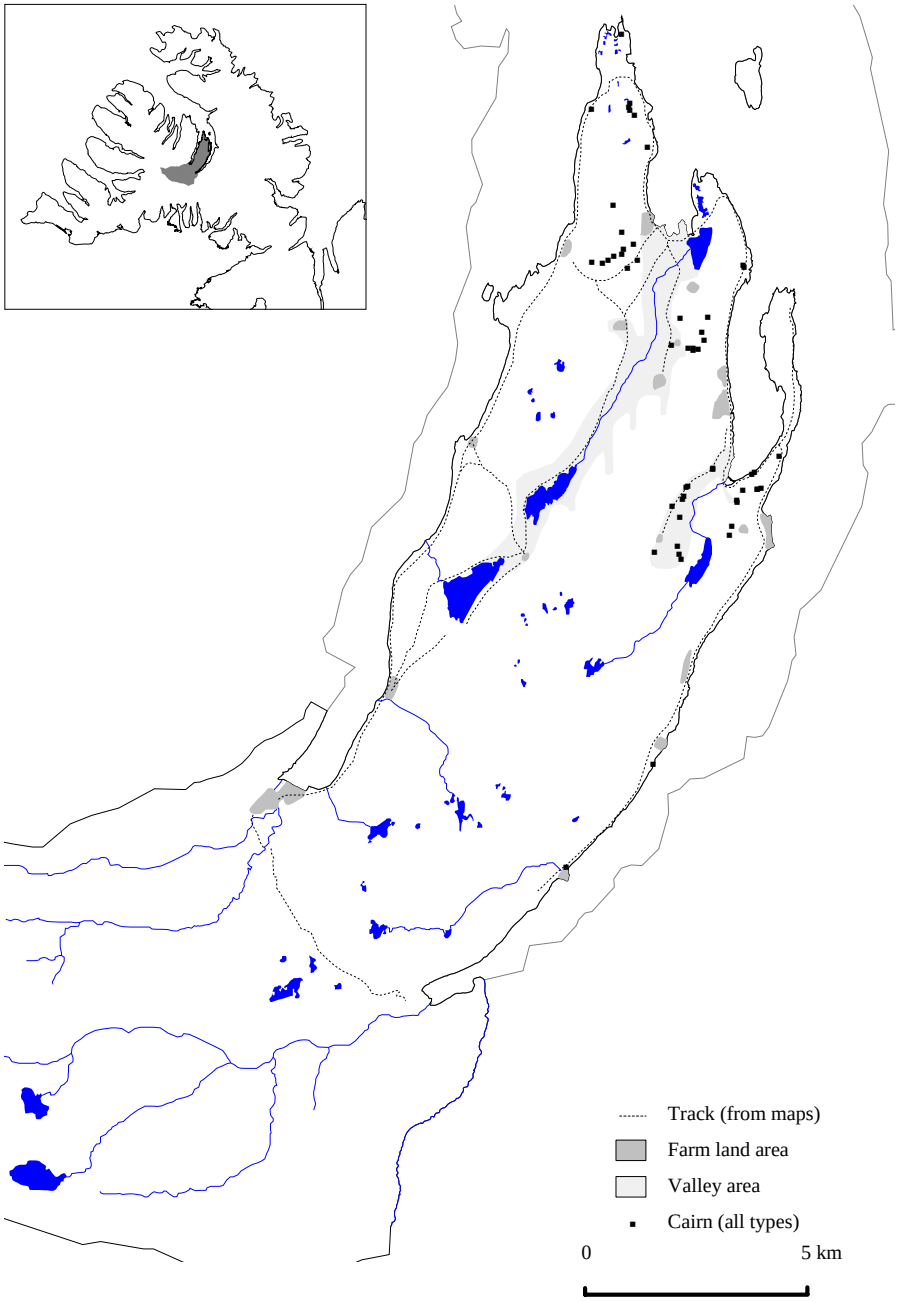


Figure 18. Tracks and cairns (all types), as well as farm places (indicated by improved land areas on 1:100,000 maps).

Movement

The movement across the landscape between places (variety of types and activities) allows speculation on several research problems. Firstly, limitations in the archaeological evidence about movement, seen in cairns and tracks that are physically marked, only gives indications of some of the more well used routes across the landscape. Others that are less obvious are sea navigation, which probably played an important means of transportation between settlement areas or trade places, as well as other routes across the landscape which are unmarked but

can be observed. This point introduces routes to places by land that are not marked but are part of a 'landscape logic'. These are generally not recorded through usual survey practice. This is partly a problem of the archaeological record, but it is also conceptually one. The evidence for understanding of how people moved is not always forthcoming in the archaeological record so by examining reasons behind movement and its association with other factors may reveal a new understanding. Generally, people moved along known tracks and established routes, but they also journeyed to other places by alternative routes. Understanding these possible routes of movement through a landscape, through observation, allows speculation on the meaning of landscape that goes beyond our usual connotations of it; for example, those aspects associated with folklore or cosmological aspects of the landscape or as part of a navigation system situated within a seascape.

Cairns were the most numerous sites surveyed in 2005. Numerous forms were observed, with some common characteristics. Cairns were stacked, usually 10 courses tall, though this depended on their continued maintenance and their respective age. Three areas with cairn systems were extensively surveyed – Vatnsfjörður and Vatnsfjarðarháls, Vatnsfjarðardalur and Reykjarfjarðarháls (in the vicinity of Hálshús and Sveinhús), and Reykjarfjarðardalur. Figure 19 shows the relationship between the cairns, tracks and the farm places.

The cairns in the valley areas are usually associated with marking the route between the farm and the sheiling (for example at Vatnsfjörður and Vatnsfjarðarsel, and Reykjarfjörður and Reykjarfjarðarsel). There were also cairns that marked alternative routes in these areas. These routes may be related to other grazing areas or perhaps access to water. Extensive routes between the valley areas into the fjords were marked on the upland areas on Vatnsfjarðarháls and Reykjarfjarðarháls. These routes often accessed gaps through the benches that were naturally formed. In Vatnsfjörður and Vatnsfjarðarháls area a system of cairns runs parallel with a track that lies on the boundary between Vatnsfjörður and Miðhús. Individually each cairn is visible from the adjacent one, spaced at approximately 150m apart. The cairns mark a route between Skálavík and Vatnsfjörður which takes it partly over the lava bench, rather than around the outcrop and between a gap.

A cairn system is evident just above Vatnsfjörður on the cusp of Vatnsfjarðarháls. These cairns, which include Grettirs's Cairn, run along the lava bench lip that lies above Vatnsfjörður. It is possible that they are part of a sea navigation system that extends out into the fjord. Viewshed analysis from a number of cairns that have been interpreted as sea navigation markers suggested that the navigation system comprised of several interlocking systems. The navigation system therefore can not be fully understood from only one location; several sites need to included. In the following analysis several markers were used [UIDs 117, 148 (see figures 5 and 6)]. These two markers compliment each other in their views (figures 19 and 20). However, their distance from the sea would have made viewing them from the sea difficult in bad weather. Perhaps in circumstances such as these other markers, closer to the sea would have been used; for example UIDs 120, 169, and 187 (pink crosses on figures 19 and 20). Other cairns that lie in close proximity to the coastal edge were probably used as a local system of sea navigation, such as local harbouring or small fishing grounds.

The meaning of landscape: preliminary thoughts

Attempting to understand how people who lived in this landscape in a pre-industrial past will allow a better grasp of the meaning of landscape through their eyes; though this is extremely difficult to achieve. The theory and practice adopted in this research project fundamentally made use of landscape observation and how natural features were used, and this goes someway to see the landscape through the eyes of these people. There is question of how successful this is and if it is a valid research approach.

The reiteration of place and movement as major themes in the north west landscape underlies the concepts being outlined here: *place* guides and colours subsequent character of landscape and its people; *movement* connects place and brings it within a landscape context. By characterising the north west, in particular the study area, creates a platform for the understanding and meaning of landscape. This meaning is not an abstract one, i.e. that is distant from the people and their landscape, but one that is firmly based *in* the landscape that is studied. Firstly, the north west has much in common with other parts of Iceland. It is a harsh landscape dominant by nature, comprised of dispersed settlement with varying land uses. Secondly, the natural conditions of the environment have dictated activities such as settlement location and how people moved in the landscape. Topography has given structure to the underlying archaeological meaning of landscape by creating a canvas on which these networks and patterns are performed. Therefore to the meaning of landscape from the context of its people who live(d) in it understanding the relationships between man and nature is critical.

The topography of the Vatnsfjörður study area is diverse enough to accommodate several variations, and is demonstrated by the types of movement and places. These topographies can be associated with particular groups of activities and sites: sea and shore, valley and dale, upland ridges, highland. Sea and, shore for example, tend to be associated with sea activities, such as fishing, as well as boat landings and huts, as well as navigation markers. These are the most typical features but others that are more subtle are also apparent. The scant knowledge about Viking age burial in the north west suggests that practice was different than in other regions of Iceland. The close connection between the sea and settlement may also have mirrored itself onto burial practice in the region. Close to Vatnsfjörður farm a small cluster of possible burials were found.

In valley and dale topographies, farming activities dominate, such as grazing areas in the deeper parts of Vatnsfjarðardalur and Reykjarfjarðardalur. These areas contain also subtle features which have a much longer histories; such as unclassified ruins. These areas are associated with farming activities which are dominated by farm places, grazing areas as well as the routes to them that are marked by networks of cairns and tracks.

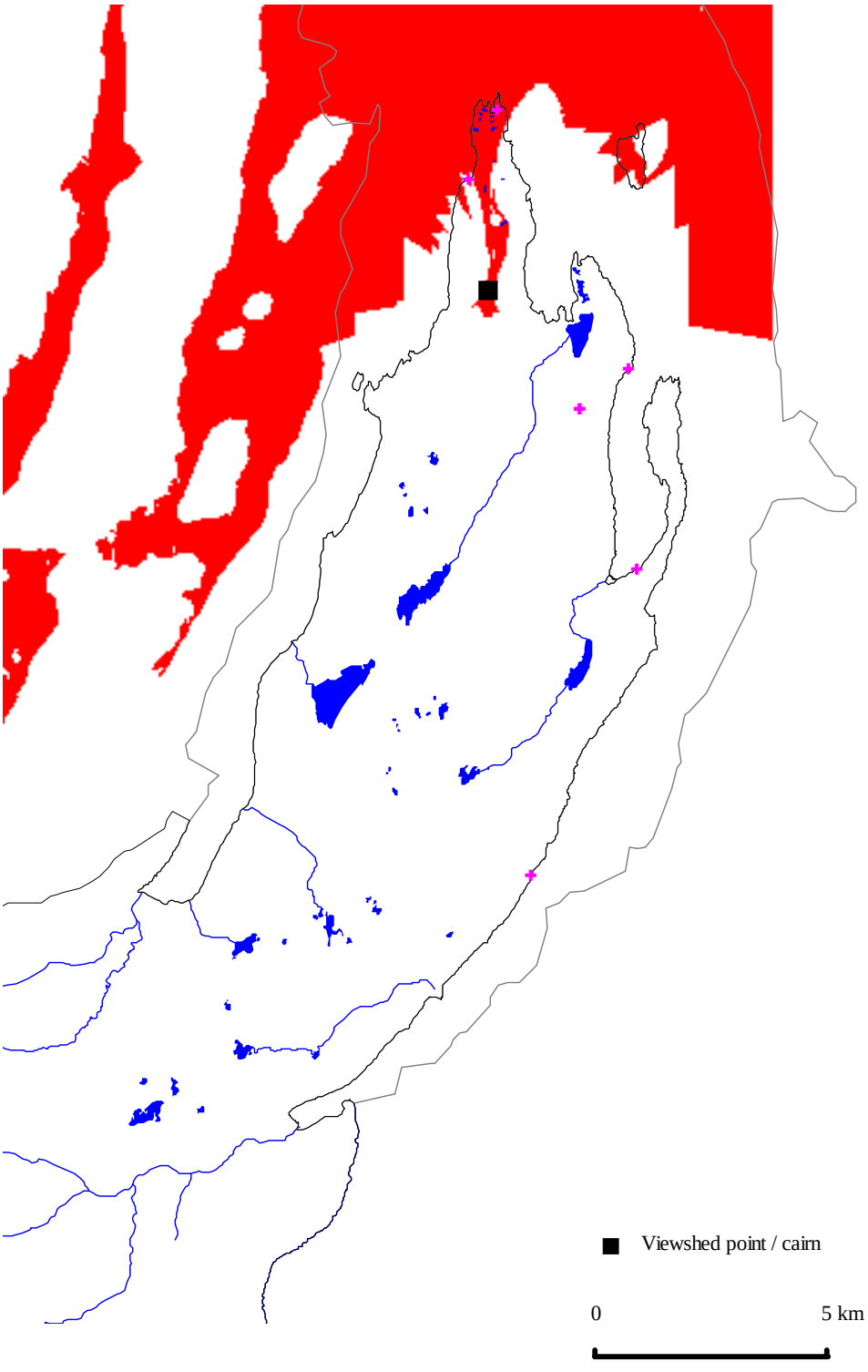


Figure 19. Viewshed analysis from cairn / marker UID 117.

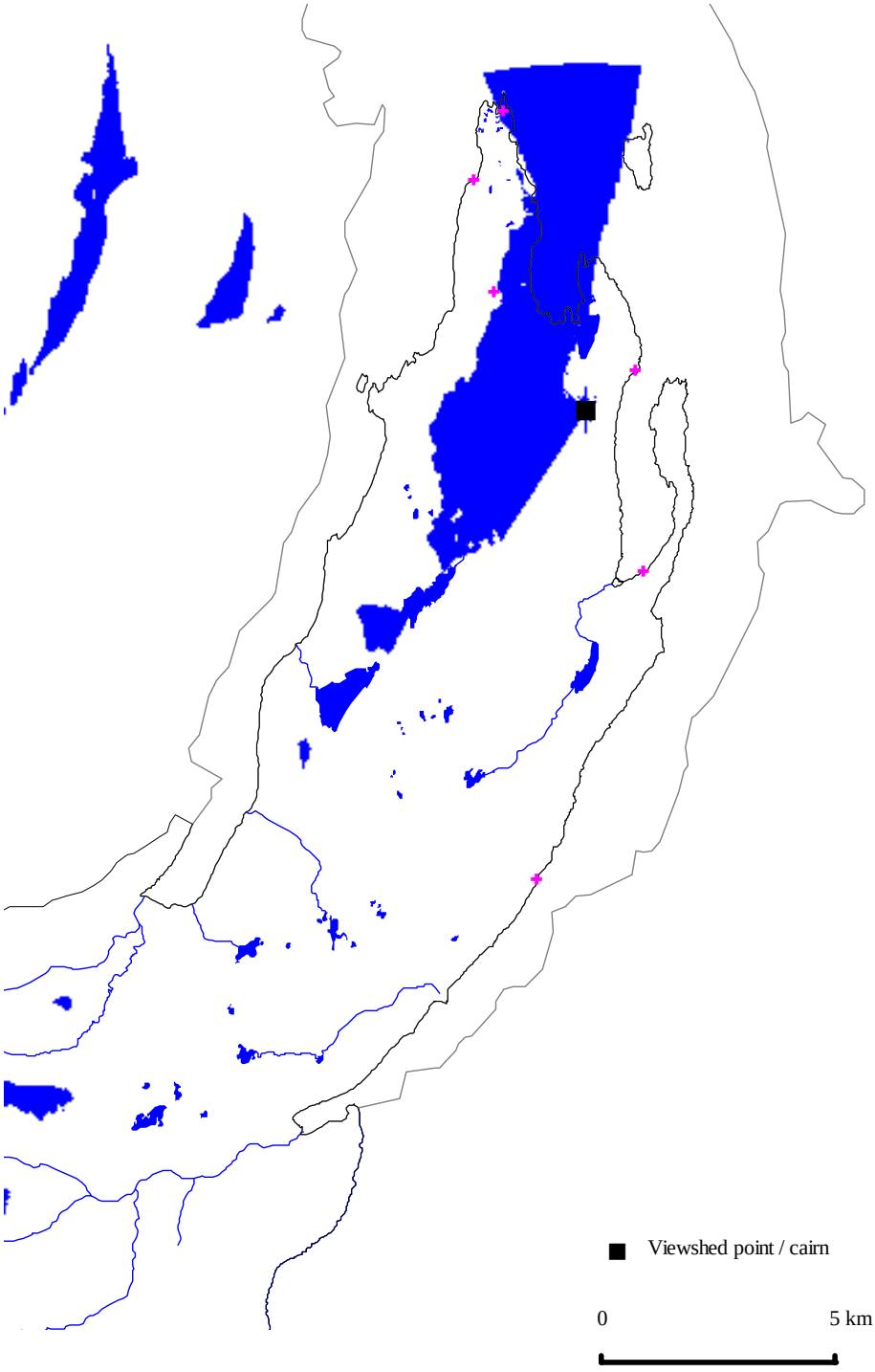


Figure 20. Viewshed analysis from cairn / marker UID 148.

The upland ridges are disconnected from both the farm land areas and the sea, though they contain features that are inherent to both of them. For example, these areas contained route marker cairns that help people move between valley areas to fjord areas. There are also larger monuments such as sea markers which are part of navigation system that extends into the fjord areas. On the fringes of this type of topography and the valley and dale areas are small farm features that were used to confine animals. The highland areas were not surveyed in the field but only from the air. They do not appear to contain any of the types of sites surveyed in 2005, but they may reveal smaller discrete features. Cairns for example were difficult to observe from the air and there may be routes across the highland areas into the interior of the north west as well as shelters. If these features exist then they may connect into a regional route network.

Concluding remarks

The historic character of the north west landscape is captured well by the Vatnsfjörður study area. There is dominant underlying natural structure that has dictated activity resulting in limited exploitation and expansion. It also suggests a relatively stable settlement that is associated with small scale farming and an emphasis on fishing; the sea is the main natural resource. In other regions of Iceland farming bonds communities together through communal activities such as late summer sheep herding and sorting. In Vatnsfjörður there appears to be few communal based activities. An exception may be the shared use of sheiling and grazing areas which is suggested by a convergence of tracks from several farms focused on Vatnsfjarðarsel. Alternatively, the importance of Vatnsfjörður farm may have bonded the community particularly as it was the church place for the area. Fishing may have also had a role to play in community activities, but the archaeological evidence for this is not readily apparent.

Future work should focus on several areas. Development of the survey method, tried and tested against the usual Icelandic survey method. Focus should shift away from the farm and settlement landscape and instead focus on the networks of movement in relation to the sea and across the land. This should take place mostly in the upland areas as well as some exploration of the highland area, particularly towards the south west of the region. Aerial survey should be used as a reconnaissance tool in advance of fieldwork or complimenting it.

Ragnar Edvardsson:

Archaeological excavations at Vatnsfjörður 2005

Introduction

The archaeological excavation of the longhouse located at Vatnsfjörður in Ísafjarðardjúp was continued in the summer 2005. The longhouse is situated about 100 meters northwest of the main farm in Vatnfjörður. The overall excavation was also enlarged during the 2005 season and the research area was extended about 100 meters to the east.

The research method of the excavation at Vatnsfjörður was as before based on single context excavation, i.e. each archaeological unit was mapped, measured, photographed and then removed. The ideology behind this method is based on the removal of each cultural layer in a reversed time order. This gives a detailed history of the site from the beginning of the settlement to the present day.

The main aim of the research in 2005 was to finish the excavation of the longhouse. The excavation area was also extended to the east to establish if there were any other cultural remains in the vicinity of the longhouse. Other aims were to excavate a structure that had been recorded in 2003 and to continue testing the farm mound for future excavation. The farm mound was surveyed with resistivity to get a clearer picture of the condition of archaeological remains in the mound.

In the summer of 2005 a field school was run for the first time alongside the excavation at Vatnsfjörður. The field school is part of the Institute of Archaeology and was, prior to 2005, in the north east of Iceland. There were 14 students at the field school in 2005 and they came from various countries. Amelia Grace Bidwell (USA), Elizabeth Pierce (USA), Helgi Dal Michelsen (Faroes), Even Aallangrud Andersen (Norway), Jonas Secher Schmidt (Denmark), Lásló Ferenczi (Hungary), Paul Baltzer Heide (Denmark), Erna Þórarinsdóttir (Ísland), Karlotta S. Ásgeirsdóttir (Ísland), Mike Campana (USA), Molly Odell (USA), Konrad Smiarowski (USA), Peter Kuchar (USA) og Frigg Ragnarsdóttir (Iceland). The Graduate students, Ramona Harrison and Seth Brewington from the Graduate Center, City University of New York, participated in the field school. The authors of this report would like to thank the students for their excellent contribution to the research at Vatnsfjörður.

The staff at the excavation were; Ragnar Edvardsson (Site director), Karen Milek (Director of the field school), Astrid Daxböck and Ruth Maher (site supervisors). Garðar Guðmundsson, Oscar Aldred and Adrian Chadwick from the Institute of Archaeology took part in various part of the research and also the professors Thomas H. McGovern, Ian Simpson and Christian Keller. The specialist Jennifer Blunt was in charge of floating soil samples during the excavations.

Baldur Vilhelmsson, the priest at Vatnsfjörður, and his family receive special thanks from the staff and students both for the endless patience and the help that they gave during the 2005 season.

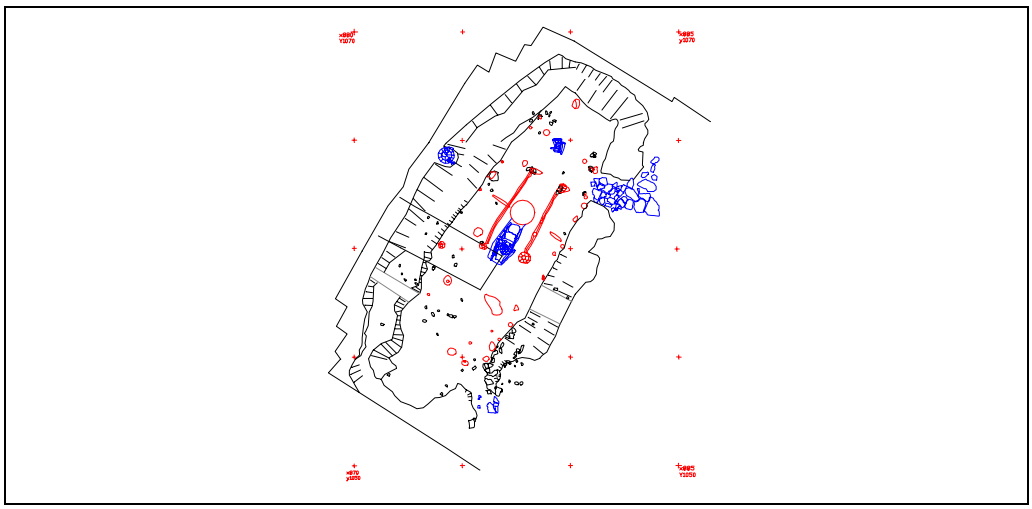


Fig. 1. A excavation plan of the 10th century skáli.

Area 1. Viking age longhouse (Group 352)

Most of the Viking age longhouse remains were excavated during the 2004 season but it was decided to leave few parts unexcavated for the 2005 season. What remained in 2005 was to finish excavating the walls to understand how they had been constructed and it also remained to examine any remains under the longhouse floor. The main aim of the 2005 season was to gather information on the construction of the longhouse and what material had been used in the construction.

Along the walls on the inside of the longhouse postholes [349] became visible. All these postholes had been excavated into the undisturbed gravel layer underneath the longhouse. In some places no holes were visible, only flat stones which had been used as post pads [349]. Postholes and post pads were in many places absent in the south end of the longhouse, which probably is the result of field flattening and later disturbance.

The stones in the fireplace in the center of the longhouse were removed, revealing a shallow trench dug into the subsoil. During the construction of the fireplace , flat stones had been placed in the center of the fireplace and other put sidewise on the edges of the shallow trench [351]. On the southeastern part of the fireplace a small hole was excavated which probably is the remains of a *feluhola*, i.e. a hole to keep embers overnight to rekindle the fire in the morning. A similar hole had been excavated during the excavation of the longhouse in Aðalstræti in Reykjavík (Howell Roberts, et al., 2003)

The walls of the longhouse [350] were cleaned and what remained of wall collapse was removed. It was clear that the walls were badly damaged by field flattening, especially on the south side. To get a better idea about the construction of the walls two trenches were dug through them. One trench was excavated through the southern part of the west longhouse wall, the other at the middle of the east wall. Both trenches showed clearly that not much remained of turf in the walls only the lowest parts of the walls remained intact.

During the construction of the walls gravel had been dug from the outside of the building alongside the walls. The gravel forms the foundation of the walls and no stones were found in the foundation. Turf of the strengur type had been built on top of this gravel. In some places gravel was clearly recorded between the turf lenses and it seems that gravel had been used as infill between the turf lenses during the construction.

Conclusions

The main aim of the excavation in the longhouse was to finish what was left of cultural layers in area 1 and to collect information on the actual construction of the building. The excavation in 2005 does not change the conclusion from 2004 but gives us a better understanding of the construction.

The occupation in area 1 can be divided into following phases:

1. Phase 1. Construction of a longhouse (AD900 – 950).
2. Phase 2. The south end of the longhouse abandoned and the structure shortened (AD950 – 1000) (Ragnar Edvardsson, 2004).
3. Phase 3. Area 1 abandoned (ca. AD1000).
4. Phase 4. The structure collapses and is covered by earth. (ca. AD1000-1900).
5. Phase 5. Some activity in the area, probably field flattening that disturbed the south end of the structure. (ca. AD1900-1950).
6. Phase 6. Modern (AD1950-2004).

In the foundation of the longhouse gravel was used not stones as has been recorded at many other longhouse excavations in Iceland. A trench was excavated along the outside of the longhouse, probably to drain water and divert it from the walls. It is interesting that during the construction of the walls gravel was used between the turf lenses, which suggests that the builders had some problems finding good turf for wall construction and used gravel as a substitute of some sort. This seems strange as there are very good stones for wall construction in the vicinity and it would have been easier to built the walls with stones instead of turf. It is likely that the builders did not realize this and tried to use the material that was best known to them for the construction of the longhouse. This suggests that the builders had recently arrived in the area and had not explored the area around the Vatnsfjörður farm.

The excavation showed that the longhouse had been divided up into smaller spaces. The division was marked by postholes that had been constructed across

the longhouse on the inside. The first area is in the north part of the longhouse and extends from the north gable wall to the north entrance in the east wall. It is difficult to assess what this space was used for but it may have been a storage space. By the entrance was a small space and south of it was another which is marked by the fireplace. This space is probably the cooking area where meals were prepared. The southern part of the longhouse all the way to the southern gable wall is one space and is higher than the rest of the structure. It is quite possible that this space was further divided but it was difficult to see any further divisions as the area was badly damaged. This space was probably where people slept and along side the walls were probably beds and benches.

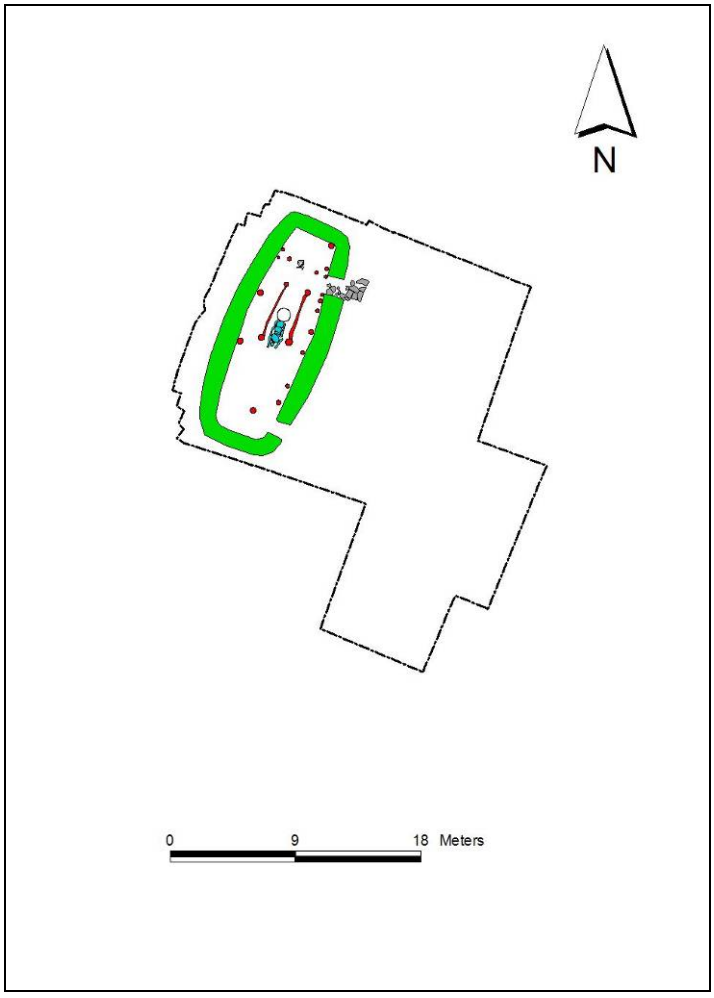


Fig. 2. Suggested layout of the skáli.

The excavation of the longhouse is now finished and all the archaeological data suggests that this structure was one of the first ever built at Vatnsfjörður. There were two occupational phases recorded in area 1. The first one was the construction of the longhouse and the second when the longhouse was shortened and the building used for something different (Ragnar Edvardsson, 2004). It is likely that both phases are from the 10th century as all artifacts from both phases date to the 10th century. Radiocarbon dating of a cow bone from the

longhouse floor deposit suggests that the longhouse was in use in the earlier part of the 10th century and therefore was built sometime before that time. Based on the archaeological data the longhouse was probably constructed in the early 10th century.

From an archaeological standpoint the research at Vatnsfjörður is important for our ideas about the settlement of Vatnsfjörður and even the whole Vestfirðir area. All the evidence suggests that the settlement of Vatnsfjörður took place in the early 10th century. This, along with other archaeological data from other sites around Iceland, suggests that the settlement of Iceland took place in a relatively short time period and the settlers occupied different areas of the country at the same time. Many scholars have thought that the settlement of Vatnsfjörður took place a lot later than elsewhere and have based their assumption that the area was the least feasible from an agricultural standpoint. This idea does not include other economical factors in Viking age society in Iceland. It is likely that economical factors that are the most important in Vestfirðir, such as fish, driftwood, etc., are the key element in the settlement not agriculture. The settlers that occupied the Vestfirðir area were looking for these resources not agriculture.

Karen Milek

Vatnsfjörður 2005: Area 2 Report

Introduction

In 2005, a new excavation area encompassing 310 m^2 was opened up to the east and southeast of Structure 1 (Figure 1). The excavation of this new area, Area 2, was supervised by the author, with the assistance of Ruth Maher (June 27-July 15) and Mjöll Snæsdóttir (July 12-22), and it was staffed by an international group of students who brought to the excavation a high level of care and enthusiasm.

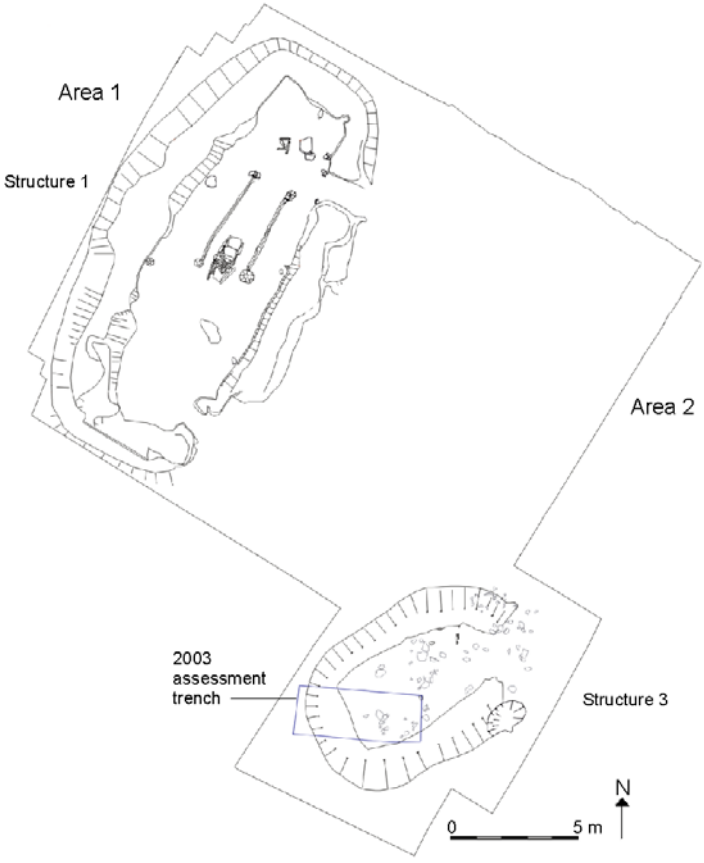


Figure 1. Plan of Areas 1 and 2.

The goal of the 2005 field season in Area 2 was to investigate a midden deposit that a previous auger survey had indicated was in the northern part of the new area, and to investigate a building 10 m southeast of Structure 1, which had been discovered in an assessment trench in 2003 (Edvardsson 2003). The other 'outdoor' deposits between the two buildings were also of interest, because we wanted to know more about both the internal and external living and working spaces at the Vatnsfjörður farm. Although the spaces between structures have only rarely been explored on

settlement excavations in Iceland, it is very likely that they were part of the social space of farmsteads – the location of a potentially wide range of activities related to farming, craft production, and daily life. The investigation of these 'outdoor' areas was intended to contribute to our research on the economic and social development of the Vatnsfjörður farm, and to provide a stratigraphic link between the buildings.

The 2003 Assessment Excavation in the Vicinity of Area 2

In 2003, Ragnar Edvardsson, Ruth Maher, and Oddgeirs Hansson excavated a 5 x 2 m assessment trench 10 m southeast of the area that has become known as Area 1, where low-lying earthworks suggested that there could be the remains of a building ('Trench 3' in Edvardsson 2003: 33; see Figure 1). Under the surface turf, they found gravel deposits on the west side and the southeast corner of the trench, which were interpreted as the foundations of walls that would probably meet at an angle of 90° if the trench were extended (contexts 23, 27, 28). The gravel wall on the west side of the assessment trench was flanked on its east and west sides by layers of light brown aeolian soil (contexts 21, 22), under which were light-coloured turf layers interpreted as debris from the collapse of the roof and walls of the structure (contexts 26, 29).

Below the turf debris layer on the west side of the west wall foundation, there was a mixed layer of light brown soil and charcoal, which contained a few burnt bones (context 37) – this layer was left unexcavated. Under the turf debris on the east side of the west wall foundation, there was a black, compact, charcoal-rich layer, which was interpreted as a possible floor layer (35). Below this possible floor, there was a thin turf layer (36), overlying *in situ* gravel belonging to the subsoil (38).

Figure 2. Assessment Trench 3 under excavation in 2003, facing W. Note the black, charcoal-rich layer, interpreted as a floor, which was contained on its west side and south-east corner by low, gravely wall foundations.

In his 2003 report, Ragnar Edvardsson concluded that assessment trench 3 contained the remains of a building, which he named Structure 3[8]. Only the very

[8] In the 2005 site archive and Area 2 diary, this structure was referred to as 'Structure 2', but it has been relabeled here as 'Structure 3' in order to maintain consistency with the numbering of structures

lowest parts of the walls were preserved, possibly due to the flattening of the homefield in the mid-20th century. The function of this building could not be determined on the basis of this assessment, and it was hoped that further exploration in this area would elucidate how the building had been used (Edvardsson 2003: 33).

2005 Excavation Strategy

The excavation of Area 2 began with the opening of a 19 x 12 m area that bordered the southeast edge of the 2004 excavation trench, which is now known as Area 1 (Edvardsson 2004). Since Structure 3 was only partially uncovered by this initial excavation area, the southeast corner of Area 2 was extended by a further 85 m^2 during the last two weeks of the excavation. By the end of the field season, the archaeological deposits in most of the excavation area had been recorded and removed, and only deposits directly associated with Structure 3 remained to be completed. In the last two days of the excavation, the large area that had been excavated down to the natural subsoil, and that will never be re-opened, was covered with fresh turf. The area in and around Structure 3 was covered with Terramatting and the turf that had been cut from Area 2. Our intension was to ensure that the area was well protected for the winter, but that roots would be prevented from penetrating the underlying archaeology.

The excavation of Area 2 was conducted entirely by hand using the single context recording system, and followed the guidelines and protocols issued by the Institute of Archaeology, Iceland (Lucas 2003). The aeolian deposits that covered the site were excavated using a combination of trowelling and controlled hoeing and spading, and 25% of this material was dry sieved using a 4 mm standing screen. All of the underlying deposits in Area 2 were excavated by trowel, and were 25-100% sieved, depending on their apparent sterility or richness. For example, extensive spreads of turf fragments, which were seemingly sterile (e.g. context 235), were 25% sieved (1 out of 4 buckets) in order to double check that no bones or artefacts were being missed. The turf debris layer that capped the internal deposits of Structure 3 (context 318) was 50% sieved, while most of the other deposits in Area 2, which could be classified as either midden deposits, pit fills, or surfaces, were 100% sieved. Most layers were dry sieved with 4 mm mesh, but all midden-like, ashy, or charcoal-rich layers were 100% sampled for flotation and wet sieving with 1 mm mesh.

Excavation Results

Many deposits on the eastern edge of Area 1 extended into Area 2. The stratigraphic relationships between these overlapping layers and other contexts in the western and northern parts of Area 2 has meant that all of the ‘outdoor’ deposits in Area 2 can be placed in the phases proposed for Area 1 by Ragnar Edvardsson in 2004 (Edvardsson 2004: 9) (see the Area 2 matrix, Figure 3).

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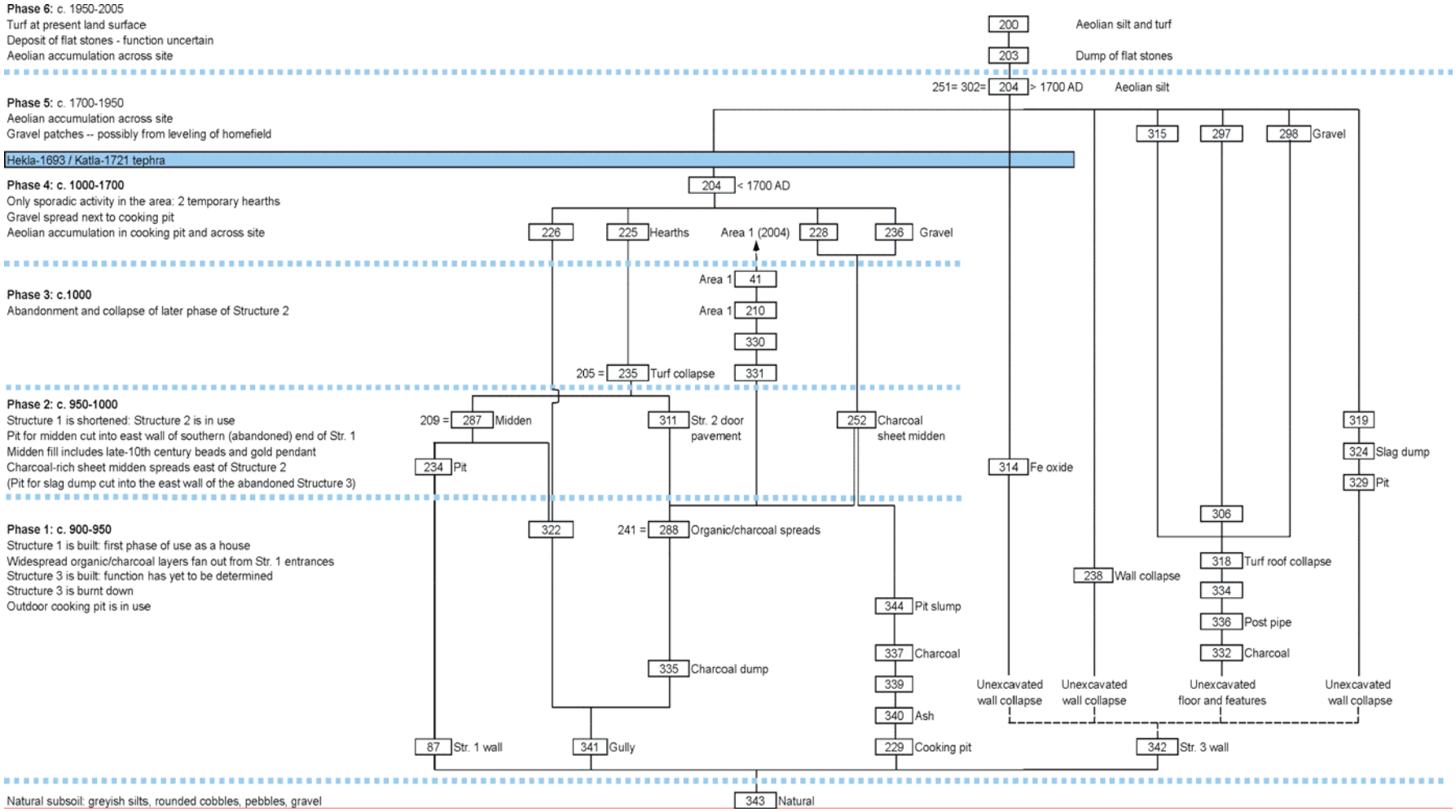
in Edvardsson 2003 and Edvardsson 2004.

Figure 3. Area 2 matrix.



Unfortunately, there was no stratigraphic relationship between the new building, Structure 3 and the other deposits in Areas 1 and 2, which are known to be Viking Age. Aeolian silt directly overlay the natural subsoil in the area between them, making it impossible to fit Structure 3 into the phasing of the rest of the site. In addition, since the artefacts found in association with Structure 3 were limited to slag and nails, it is not yet possible to give this building even a tentative date. At present, the only characteristic of Structure 3 that suggests that it may have been contemporary with Structures 1 and/or 2 is its method of construction – gravel wall foundations, and alternating layers of gravel and turf in the lower parts of the walls – which is extremely unusual in Iceland, and is so far paralleled only in Structure 1 at Vatnsfjörður. It is hoped that datable finds and bone material will be recovered from the internal occupation deposits in Structure 3 when the building is fully excavated next year. In this report, Structure 3 will be discussed separately from the other deposits in Area 2, which are of certain Viking Age date. These deposits, which blanketed the northern and western parts of Area 2, and which are a result of 'outdoor' activities associated with Structures 1 and 2, will be discussed in order of phase.

Outdoor Activity Areas Associated with Structures 1 and 2

Phase 1: early 10th century

Immediately outside of the eastern long wall of Structure 1, and running parallel to this wall, was a shallow ditch, or gully, 6.6 m long and up to 25 cm deep, which was dug into the gravely subsoil (context 341). Since the stony beach deposits underlying the site would have ensured that it was naturally well-drained, it is unlikely that this gully served as a drainage ditch, and a more plausible explanation for it is that it was created during the construction of Structure 1, when the pebbly subsoil was dug out for use in the foundations of the walls.

Figure 4. The shallow ditch on the east side of Structure 1, partially infilled by charcoal dump 335. Facing NW.

This shallow ditch was partially infilled by a charcoal-rich midden deposit, which contained a few burnt bones and unidentified iron objects (context 335). Because this midden deposit was confined to the ditch, it may have been placed there intentionally, in an effort to fill the depression (Figure 4). The charcoal lenses observed in this deposit are probably derived from successive dumps of wood ash – presumably hearth waste, since burnt bones were also present – which would have originally included a significant component of white, calcareous ash. Although it was only 2-3 cm thick

when excavated, the deposit would originally have been thicker, and would have shrunk as the white, ashy component dissolved under the influence of slightly acidic rainfall.

More extensive layers composed of a mixture of organic matter and charcoal overlay charcoal dump 335 and the gravely subsoil, and continued to infill the ditch. Lipping up against the northeast wall of Structure 1, and overlapping the northern end of the ditch and charcoal dump 335, was a widespread layer, 288 (equivalent to 241 in Area 1; see Figure 5). In addition to containing abundant charcoal (c. 20%) and decomposed organic matter, context 288 contained a few small patches of red/orange turf and/or peat ash. Most of the finds in 288 were iron objects – predominantly nails, but also a rivet/rove, and a broken knife blade. In addition, context 288 contained two very small jasper flakes, which had probably been flaked from a strike-a-light. Both burnt and unburnt bones were found, but the fact that the faunal material from this layer was dominated by small fragments of burnt bone and teeth suggests that bone preservation was generally poor. A clear indication that at least a portion of the unburnt bone assemblage has deteriorated in the acidic soil conditions was the discovery of a row of cow teeth in anatomical position, from which the mandible had disappeared (Figure 6). Context 288 appears to be fanning out from the northeast doorway of Structure 1, and may be interpreted as a sheet midden that became trampled into the original ground surface of the site by traffic coming in and out of the doorway.

Figure 5. Sheet midden 288, facing NW.

Figure 6. Row of cow teeth in anatomical position in 288. The mandible has dissolved.

Overlapping the southern end of the ditch, where it reached a maximum thickness of c. 10 cm, and spreading out thinly over the subsoil in front of the southeast doorway of Structure 1, was a mid-brown, silty layer, containing charcoal flecks (c. 5%) and a few small patches of pale brown turf (context 322). Where it infilled the southern end of the ditch, this layer contained abundant stones, but it contained few artefacts – only one iron nail, and 1 fragment of burnt bone. The way in which context 322 spreads in two tongues, one parallel to the east wall of Structure 1, and one stretching southwest, straight out of the door, makes it appear as though it were

created by the trampling of traffic coming in and out of the doorway (Figure 7).

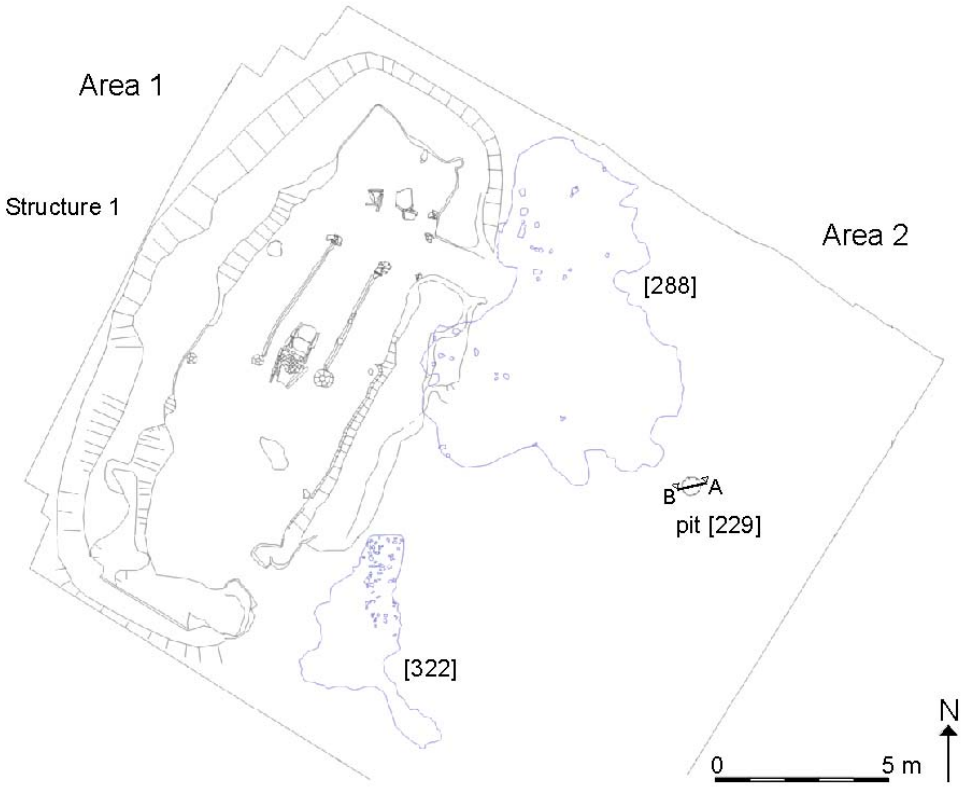


Figure 7. Plan of Phase 1 in Area 2: layers 288 and 322, and cooking pit 229.

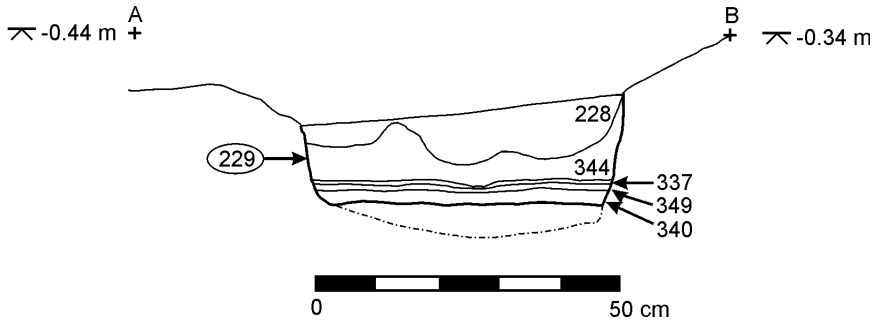


Figure 8. Section through cooking pit and associated fills (group 345).

8.5 m east of Structure 1, a rounded, flat-bottomed pit, about 50 cm in diameter, and 30 cm deep, with nearly vertical sides, had been cut into the pebbly subsoil (context 229; see Figure 7). The basal fill of this pit was a thin layer (1-2 cm thick) of greyish-white ash (context 340), capped by a thin brown silt layer (339), and finally a thin, black lens of wood charcoal that originally must also have been associated with wood ash (337). The greyish-white ash layer at the bottom of the pit marks one of the few places on the site where calcareous wood ash has been preserved, and this

localised preservation is probably due to the high concentration and thickness of the material relative to the sheet midden deposits, for example, where only the charcoal component was preserved. Localised alkaline conditions are probably also responsible for the preservation of the two bone fragments that were found in context 340 – the pit contained no other finds. The size of the pit, and its ashy primary fills, strongly suggest that it had been used as a cooking pit, and as the feature is not associated with a building, we must assume that this cooking pit was outdoors. It could either have been contemporary to, or earlier than, the occupation of Structure 1; a radiocarbon date on the bone in context 340 would help to confirm when the pit was in use. When the pit was abandoned, its edges weathered and slumped down, and the pit was infilled with several centimetres of gravel, pebbles, and stones (context 344). The pit had been abandoned, and subjected to weathering processes for some time, before a charcoal-rich sheet midden, which was spread widely over the northern part of Area 2, lipped down into the gravel-filled depression (context 252). This extensive charcoal layer will be discussed in more detail under Phase 2, below. The remaining shallow depression created by the pit was eventually filled with dark red-brown silt that was probably aeolian in origin (context 288) (see Figures 8-9).

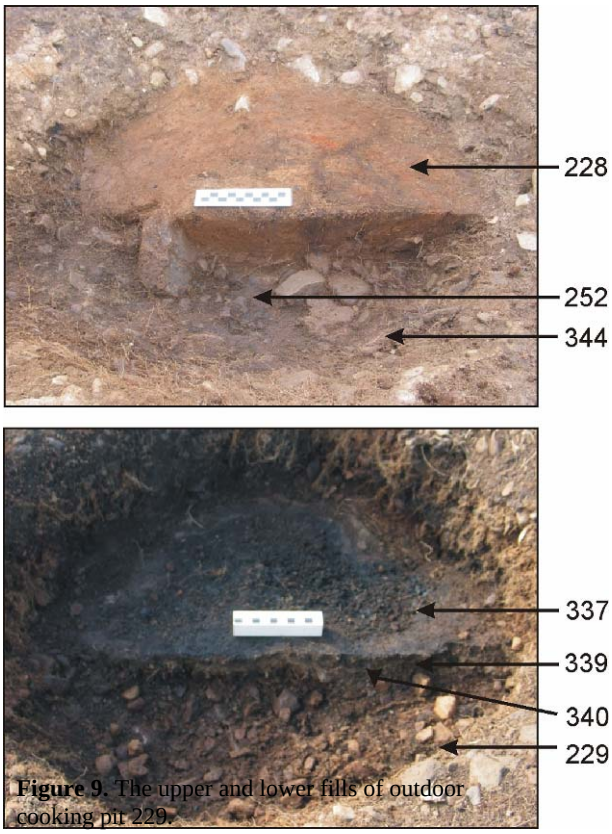


Figure 9. The upper and lower fills of outdoor cooking pit 229.

Phase 2: late 10th century

During the second half of the 10th century, when Structure 1 was shortened, and the southern half of it fell into disuse, a pit was dug into its abandoned east wall (context 234, in Area 1). A midden deposit was placed in this pit (context 209=287), which spread eastwards into Area 2 – here it overlapped the trampled deposit, 322 (discussed above), and infilled the depression left by ditch 341 (Figure 10). This midden was very heterogeneous and stony, and was mainly composed of black, charcoal-rich silt, fire-cracked and frost-shattered cobbles (c. 10-20%), and pebbles and gravel (c. 10%).

An assessment of the charred botanical assemblage in 209/287 by László Ferenczi and Karlotta Ásgeirsdóttir showed that it was dominated by wood charcoal, but that it also contained a few charred barley grains and a significant amount of charred seaweed. Carbonised seaweed has been found on a number of other Viking Age and early medieval settlement sites in the North Atlantic region, including

Bessastaðir and Grelutóttir in Iceland, the Biggings and Kebister in Shetland, and Tuquoy and the Brough of Birsay in Orkney (Crawford 1991; Dickson 1999; Donaldson 1986; Ólafsson 1980). Seaweed can be used as fuel, but because its ash is rich in sodium carbonate and potassium carbonate, it can also be used as a source of salt (ON *svartasalt* = 'black salt', or ON *búsalt* = 'salt for cattle'), and as a source of the alkaline oxides (Na_2O, K_2O) that are used as fluxes in smelting and glass-making (Forbes 1956; Henderson 2001; Shetelig & Falk 1937, 311). Seaweed, carbonised seaweed, and seaweed ash can also be mixed with water to create lye, an alkaline solution that can be used to cleanse raw wool, as a mordant for dyeing wool, and/or for softening stockfish (Crawford 1999; Dickson 1999; Taylor & Singer 1956).

Midden layer 209/287 also contained the greatest concentration and variety of artefacts so far found on site, and also one of the largest assemblages of burnt and unburnt bone and teeth – probably due to the buffering effect of the charcoal, and the calcareous wood ash with which it must originally have been deposited (now dissolved). The artefact assemblage was dominated by iron objects, of which the vast majority were nails and nail fragments (13), but two iron knife blades, a rivet plate, and c. 107 g of iron slag were also found. The deposit also contained numerous green jasper and grey flint flakes, including three pieces 2-3.5 cm in length, which were probably used as strike-a-lights, and 7 small flakes (< 1 cm) which were probably struck off during lighting. Perhaps most remarkably, this midden deposit contained numerous objects of personal dress, including a complete bone pin (F-49), 5 glass beads (F-50, F-137, F-139, F-146), and a gold foil pendant decorated with an intertwined loop of gold filigree (F-114). The material in this midden deposit may have had a variety of sources, but it is likely that most of it comes from redeposited hearth debris and ash-rich floor sediments from a residential building. In particular, the beads, the gold pendant, and the bone pin, which did not exhibit any sign of burning, are most likely to have been accidentally lost in a floor deposit, and then moved to the midden when the floor was cleaned out – a practice that was still current in turf houses in the early 20th century (Milek in progress). A micromorphology sample was taken from 209/287, where the boundary between Areas 1 and 2 created a section, in order to see if there was anything in the microscopic composition of the midden that could contribute to our understanding of where its sediment came from, and the rate at which it was deposited (S-21).

Figure 10. Midden deposit 287, facing N. Its west half (209) has already been excavated.

Uniquely for Vatnsfjörður, many of the artefacts in this midden deposit can be fairly tightly dated. F-50 was a small, yellow, blown-glass bead of a type that was made in the eastern Mediterranean, and that was most common after 950/960 AD (type

E030). The other beads were of green and blue drawn-glass – a type that was also made in the eastern Mediterranean after 950/960 AD, but that was only produced for a few decades, and has rarely been found much after c. 1000 AD (types F060 and F070) (Elín Hreiðarsdóttir, pers. comm.). The gold filigree and foil pendant was made in Ireland, and probably originated as a decorative panel in a brooch or reliquary dating from the second half of the 9th century to the second half of the 10th century (Niamh Whitfield, pers. comm.). Considering that the gold pendant would have been a valuable heirloom, and could have been passed down through several generations, both this object and the beads date the midden to the late 10th century, or perhaps around 1000 AD. Their presence testifies to the wealth and high status of the Vatnsfjörður farm, even at this early date.

It is not yet possible to be certain which structure or structures were occupied while this midden was in use. It was probably contemporary with at least Structure 2, the smaller building that reused the northern walls of Structure 1, but the small size of Structure 2 makes it unlikely that it was the main residential building – particularly for such a wealthy farm. The presence of a central, stone-lined hearth, a large pit filled with fire-cracked rocks (probably a cooking pit), and a black, charcoal-rich floor layer containing burnt bones, suggests that Structure 2 was a specialised cooking building, similar to those that have been found on high status farms on the Scandinavian mainland (e.g. Isaksson 1998). It is very likely that the main residential building with which Structure 2 and midden 209/287 were associated has yet to be excavated.

The northeast doorway of Structure 1/2 was fitted with a pavement of flat stones (context 311), probably while Structure 2 was in use. These stones overlay the widespread, trampled sheet midden, 288/241, which was discussed above. Also overlying 288, and therefore probably contemporary with Structure 2, was a very extensive charcoal layer, which was thin (1-5 cm), but which covered most of the northern part of Area 2 (context 252). Although no white ash was preserved in this layer, it can be assumed that the charcoal derives from wood ash, from which the calcareous component has been dissolved by rainwater. This layer contained about 1% fine burnt bone fragments, as well as 124 g of iron slag, numerous pieces of unidentifiable iron fragments, and two very small flakes of green jasper, very similar to those found in midden 209/287, which were probably created while striking a fire. All of the evidence points towards context 252 being a sheet midden made up of redeposited hearth refuse – most likely from Structure 2.

Phase 3: 11th century

Structure 2 was abandoned, probably sometime during the 11th century, and was subsequently left to collapse. This phase is represented by numerous layers of pale, grey-brown turf collapse from the walls of Structure 1/2, where similar turf could still be seen at the base of the walls. The most extensive of these turf collapse layers, which overlay the stone pavement and all of the midden deposits discussed above (288, 209/287), was layer 235 (=205 in Area 1). This layer was up to 10 cm thick, but feathered out to only a few millimetres on its edges, and did not contain any artefacts or bones. Most of the other layers of turf collapse (e.g. contexts 41, 210, 330, 331) fell within Area 1.

Phase 4: 11th - 17th century

There appears to have been little activity in this part of the site during the years between the collapse of Structure 1/2 and the deposition of a post-medieval tephra layer, either Hekla-1693 or Katla-1721. On top of the turf collapse layer 235, there was a small deposit of charcoal and turf, in which several flat stones were embedded, which probably represents a small, outdoor hearth (context 225). Also on the west edge of Area 2 was another temporary hearth, consisting of peat ash, charcoal, and flat stones (context 226). Stratigraphically, the latter hearth was on top of the trampled deposit, 322, which was discussed under Phase 1, above, so the possibility that it actually belongs to Phase 2 or 3 cannot be eliminated. Both of these temporary hearth deposits contained small fragments of burnt bone, but the only artefact associated with them was an unidentifiable iron fragment, which was found in 225. It is likely that they both represent temporary, outdoor cooking hearths, and although it is impossible to date them precisely, the fact that they rested directly on top of 10th-11th century deposits, rather than aeolian silt, suggests that they probably belong to the earlier part of Phase 4, and were used during the 11th century.

Also attributed to this phase is a small patch of gravel (236), which was lying directly on top of the charcoal spread, 252, next to the cooking pit discussed under Phase 1, above. The uppermost fill of the cooking pit, a dark reddish-brown silt layer (228), also accumulated some time after the deposition of 252. The fact that both of these layers were directly on top of the late 10th century sheet midden indicates that they both probably accumulated during the earlier part of Phase 4.

Figure 11. Temporary hearth 225.

Figure 12. Temporary hearth 226.

Hearths 225 and 226, gravel layer 236, and pit fill 228, along with all of the earlier archaeological deposits in Area 2, were covered by an extensive layer of homogenous, red-brown aeolian silt (context 204=251=302). This layer was generally 5-10 cm thick, but it should be noted that the boundary between this horizon and the surface turf, above, was an arbitrary one. The layer contained very fine charcoal flecking (c. 1%), and a very low density of burnt and unburnt bones,

which were mainly small fragments, and are likely to be residual – that is, they were probably worked into this layer from the archaeological layers below through the action of earthworms, which were observed in abundance. It also contained a low density of artefacts: two small copper alloy fragments, which may also be residual, two iron nails (undatable), and one small sherd of modern ceramic. Just north Structure 3, which will be discussed below, there was a large concentration of iron slag, totalling 4.336 kg. This slag is thought to have popped up from the interface between 204 and an archaeological deposit below, as yet unexcavated, which is associated with Structure 3.

In the middle of the aeolian silt deposit, 204, there was a thin layer of dark grey fine sand, which Magnús Sigurgeirsson has identified as a tephra layer – either Hekla-1693, or Katla-1721 (pers. comm.) (see Figure 13). The discovery of a post-medieval tephra layer in Area 2 was surprising, since no tephra layers have previously been identified in this region, and it will prove tremendously helpful in any future excavations.

Figure 13. Post-medieval tephra layer, identified as either Hekla-1693, or Katla-1721

Phase 5: 18th – mid-20th century, and Phase 6: mid-20th century to the present

After the deposition of Hekla-1693/Katla-1721, the aeolian silt horizon, 204, continued to accumulate across the site, and was surmounted by the living turf on the present land surface (context 200). Just under the modern root mat, there was a small cluster of flat stones (203). These must have been intentionally deposited, but their function is not certain. A very low density of artefacts was found while the bottom of the root mat was being removed by hand, including two fragments of bone, two pieces of modern ceramic (whiteware – different types), one clay pipe stem, three small fragments of glass (tableware – different types), one whetstone, one flint flake (probably from a strike-a-light), eight iron nails, and one rivet/rove. All of these are undoubtedly recent in origin, and represent the low scatter of residual debris that is commonly found in the vicinity of settlements.

Structure 3

During the last two weeks of the excavation, a small rectangular building oriented northeast-southwest, with internal dimensions of 6.5 x 3.2 m, was exposed in the southeast corner of Area 2, where assessment trench 3 had partially exposed the remains of a building in 2003 (Figure 14). Since there was no stratigraphic link between this building and the rest of the archaeological deposits in Area 2, it is unfortunately not possible to place Structure 3 or its associated deposits in phase with the rest of the site, and their matrix is presently 'floating' (Figure 3). However, it is at least possible to say that Structure 3 is medieval: while the post-medieval tephra layer was not observed above the building itself, it was observed in section on the trench edge south of the building, in the upper part of an aeolian silt layer (251), c. 6 cm above a layer rich in iron hammerscale (314), that in turn overlay Structure 3 wall collapse. The accumulation of aeolian silt above the ruins of Structure 3 itself was notably shallower than in the rest of Area 2, and it is likely that some of this aeolian material, along with the tephra layer, was removed when the homefield was ploughed in the mid-20th century.

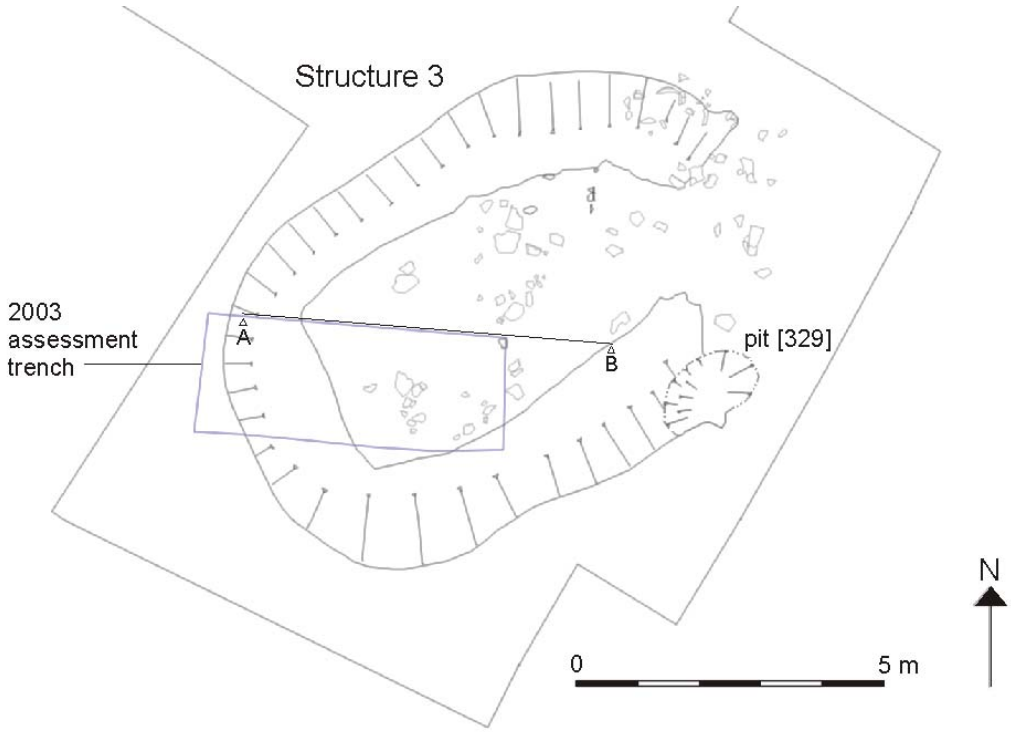


Figure 14. Plan of Structure 3 and pit 329.

Although Structure 3 cannot be given a definitive date at this time, I would put forward the tentative suggestion that the building was contemporary with Structures 1 or 2, and therefore dates to the 10th century. This proposal is based on the unusual use of gravel/pebbles in the foundations of the walls of Structure 3, and the presence of a shallow depression around the outside of the building, both of which are identical to the construction techniques used in Structure 1/2. In addition, in the section through Structure 3 that was provided by the 2003 assessment trench, these walls (context 342) appeared to be resting directly on top of the grey, pebbly subsoil,

rather than on the reddish brown aeolian silt that accumulated over the site during the later medieval and post-medieval periods (Figure 15).

The internal occupation deposits in Structure 3 were observed in section on the edges of the 2003 assessment trench, and the uppermost one (context 332) was exposed in plan, but they were not excavated in 2005. The deposits observed inside the building consisted of a thin layer of medium brown silt, overlain by a more substantial layer, up to 4 mm thick in the centre of the building, which was composed primarily of charcoal (context 332; see Figure 16). Although this charcoal layer was not excavated, one iron nail and 4.279 kg of iron slag were recovered from its exposed surface. It is likely that this slag reflects a still greater concentration of slag in the underlying deposits, and that this structure had functioned as a smithy. With the exposure of context 322, a number of internal stone features also began to be exposed, including some flat stones close to the long walls, which may have functioned as post pads, and some larger clusters of flat stones in the middle of the building, belonging to as yet unknown features. Because the surface of 332 was quite soft and undulating, and some of the charcoal pieces in it were quite large (including a couple of small branches, c. 15 cm in length), it is possible that this layer represents the burnt remains of the timbers and brushwood that had supported a turf roof, rather than a floor deposit. Its precise nature will have to be determined when it is excavated next year.

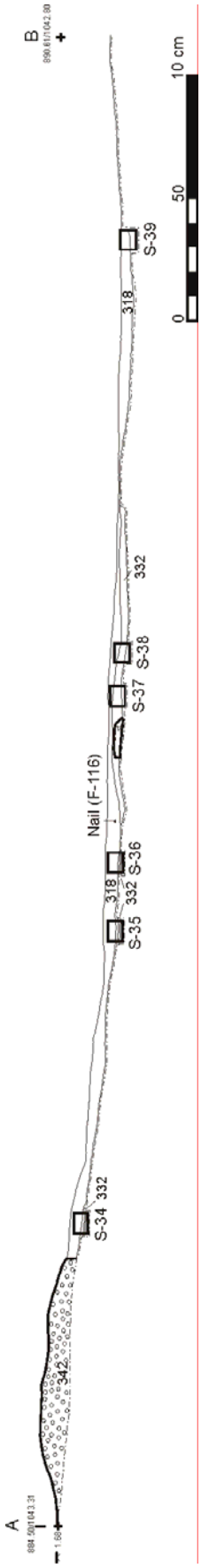


Figure 15. Section through Structure 3.

Figure 16. Structure 3, facing NE, with charcoal layer 332 exposed.

Charcoal layer 332 was capped by a 5-10 cm thick layer of mottled yellow, orange, and red-brown turf, which was confined to the interior of the building, and is therefore likely to be from the collapsed turf roof (context 318) (Figure 17). This turf layer contained one iron nail, a small patch of oxidised iron crumbs under 1 cm in size, and on the east edge of the building, a small cluster of cobbles (306). It also contained a couple of small bone fragments, but since these are likely to be residual (i.e. they were probably already present in the turf when it was cut for the construction of the building), it would be inappropriate to use them for radiocarbon dating. When the excavation of Structure 3 is completed in 2006, the internal occupation deposits should be carefully screened for potential dating material, such as domestic animal bone and charred seeds.

Figure 17. Structure 3 facing NE, infilled with turf roof collapse 318. The 2003 assessment trench is in the foreground.

There is strong evidence that Structure 3 was destroyed by fire. The deposits of turf collapse that have been exposed on the northwest and southeast sides of the building are mottled orange and red in colour, and are underlain by a continuous black lens that can only be interpreted as a scorch mark (Figure 18). The turf material that accumulated outside of the northeast gable wall of Structure 3 is also orange-red in colour. In the area where the northeast gable wall should be, the pebble ridge that made the wall foundations so distinctive in the rest of the structure is not in evidence, and it is likely that the entrance to the building will be found in the northeast gable when the orange-red turf in that area is removed.

Figure 18. The burnt turf collapse and scorch mark northwest of Structure 3, facing SW.

Following the collapse of Structure 3, a pit was dug into its eastern long wall (context 329). In this pit, and overlying the ruined turf wall in the northeast corner of the building, was a large dump of iron slag, from which 54.8 kg (all pieces over 1-2 cm in size) were recovered (contexts 319 and 324). In the upper part of this deposit, the slag was mixed with red-brown silt (50:50), but towards the bottom of the layer the silt became darker and charcoal became more abundant (319). The lowermost layer of the slag dump, where the percentage of slag to charcoal was 50:50, was given a new number (context 324; see Figure 19). Since the boundary between these layers was diffuse, it is likely that the entire deposit had originally consisted of a mixture of slag and charcoal, and that over time the silt-sized charcoal had percolated downward with rain water, and accumulated in the lower horizons.

Figure 19. Layer of charcoal and iron slag, context 319, in pit 329, facing W.

Figure 20. Layer rich in iron hammerscale, 314, facing SE.

In the southeast corner of Area 2, and partly overlying the turf and gravel collapse from the southern walls of Structure 3, was a thin layer (0.5-4 cm) of reddish-brown coarse sandy silt, which contained sand-sized crumbs of oxidised iron (context 314; Figure 20). This deposit did not contain any artefacts or bones, but the bulk sample taken from it was later tested with a magnet, and was found to be rich in iron hammerscale (S-30). It is not yet possible to tell whether this layer was an outdoor surface where iron-working took place, or whether it was a sort of sheet midden associated with a smithy, and a more precise interpretation of this layer will have to wait until next year, when Area 2 is extended further to the south and east. It seems very likely that both the layer of hammerscale, and the slag dumped in the pit and over the ruined walls of Structure 3, were associated with iron-working activity in the vicinity of the ruined building. It is possible that when this part of Area 2 is extended next year, another smithy will be found. On the east edge of Area 2, for example, a gravel ridge was observed, which looks similar to the gravel wall foundations of Structures 1, 2, and 3, and it is possible that this ridge will turn out to be the wall of another building.

Discussion

The excavation in Area 2 resulted in the exposure of a small building that had been destroyed by fire – probably a smithy – and the recovery of outdoor deposits associated with the use of Structures 1 and 2. The widespread sheet middens and trampled deposits east of Structure 1/2 were perhaps to be expected, but more surprising were the features associated with cooking, which is normally assumed to been only an indoor activity. The cooking pit (229) and the two small temporary hearths (225, 226), provide evidence that activities that usually took place inside buildings, such as cooking, could indeed by moved outdoors if the weather was fine – perhaps not so very different than what is practiced today. They highlight the importance of viewing the entire farmstead, both inside and outside of buildings, as socially active spaces, where work, entertainment, and other social activities could take place.

The middening activity on the site showed some interesting patterns, which suggest that different types of refuse were treated differently, and were moved differently around a farmstead. The thin, extensive, charcoal-rich (formerly wood ash) sheet midden that covered the north part of Area 2 (252) was made up exclusively of redeposited hearth refuse, and is likely to be associated with the periodic cleaning of the hearth in Structure 2 – possibly a specialised cooking building. Similarly, the slag and charcoal dump that was dug into the east wall of Structure 3 represents a highly specialised refuse deposit, containing only iron-working refuse to the complete exclusion of any other waste materials, such as bones or other artefacts. In contrast, the midden dug into the east wall of the abandoned Structure 1 was much more mixed, and contained a wider range of materials associated with life inside a residential building: hearth refuse, redeposited floor material, and fire-cracked rocks that were once used for cooking. These three spatially distinct middens, all of which might have been contemporary, seem to represent the activities, whether specialised

or non-specialised, that took place inside different buildings.

The placement of midden pits into the walls of ruined buildings appears to be an adaptation to the unusually shallow soils at Vatnsfjörður. On this site, where the soil was only 15-20 cm deep, and negative features were difficult to dig in the stony subsoil, ruined walls would have offered the greatest depth of sediment, and provided the most effective way of containing refuse. It is interesting to note the choice of ruins for each of the two midden pits: that the mixed midden deposit from a residential building was dug into the walls of an abandoned *skáli*, and that a dump of iron-working debris was dug into the walls of a ruined smithy. Whether these choices were due to the proximity of the successor buildings (i.e. the new residential building and the new smithy) has yet to be determined, since these buildings have not yet been found. It is also possible that these choices were not only functionally advantageous, but were in some way meaningful. For example, there may have been 'proper' places to put different types of refuse, with ironworking refuse 'belonging' to a former smithy, and domestic refuse 'belonging' to a former residential building. Future work at Vatnsfjörður will reveal whether this is a recurring pattern.

Recommendations for Future work

Most of Area 2 was completed in 2005, and only Structure 3 and its associated deposits remain to be excavated. In 2006, the excavation area around Structure 3 should be expanded in all directions, in order to ensure that all of the deposits associated with the collapse of the building, as well as any 'outdoor' activity areas, can be recovered. While the area may only need to be extended by a few meters to the north, the possibility that there is another building to the east of Structure 3 should be taken into consideration when the area is extended in that direction. To the south and southwest, it would be ideal to open up a very large excavation area – if possible, to include the ruin of the building that was surveyed this year, and which was observed in the small test trench south of Areas 1 and 2.

It would be ideal if the micromorphology samples that were taken in 2005 could be analysed before the 2006 field season, particularly those from the interior of Structure 3, as these would provide advance information about the floor deposits and possible roof collapse layers, and would allow excavation and sampling strategies to be refined accordingly. For example, it would be useful if the mode of formation of the charcoal layer 332 could be clarified in advance, because while it would be ideal to sample Structure 3's floor surfaces on a 0.5 m^2 grid, it would not be beneficial to sample roof collapse layers at this level of detail. The analysis of the micromorphology sample from the hammerscale layer (314) should also a priority, since a better understanding of this layer, its mode of formation, and interpretation, would make it easier to plan the excavation strategy in the southeast part of the site.

Since the dating of Structures 1 and 2 is so far based solely on the approximate dates of certain artefact types (which date when the object was made, rather than when it was interred), it should also be a priority to refine the dating of these buildings, and their associated outdoor deposits, by obtaining some radiocarbon dates prior to the 2006 field season. From Area 2, it would be ideal to date bone and/or charred seeds from the basal fill of the outdoor cooking pit, context 340 (B-66;

S-45). It would also be ideal to date bone and/or charred seeds from midden 209/287 (B-32, B-40; S-11, S-28), and to date charred seeds from sheet midden 252 (S-26).

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Midden Investigations at Vatnsfjord, NW Iceland July 2005

NORSEC

July 13th 2005

Summary: Between July 7-13th 2005 a team searched for midden deposits at the site of Vatnsfjord as part of the NABO / FSI fieldschool and excavation program at the site. Thirty five cores and three test units were completed, and three different midden deposits were located. One deposit was in a mound feature (Area 3) to the SE of the Viking age site area (Area 1). This proved to be largely early modern to recent in date, with the uppermost layers full of early to mid 20th c. artifacts and well preserved animal bone and the lower layers largely composed of peat ash without significant amounts of bone or artifacts present. While these deposits do not appear to extend into the medieval period, they do contain abundant bone and artifact evidence for life in the West Fjords during the first half of the last century. The second deposit (Area 4) was to the NW of the Viking age site area (Area 1). This deposit spread downhill ca 15-25 m from the Viking hall area, partially filling the space between ancient gravel beach terraces stepping down towards the modern beach to the North. Cultural deposits covered an area approximately 10 x 20 m probably originally forming a sheet midden of unknown depth. During the early modern period, this deposit was severely truncated and largely removed, perhaps as part of early field flattening/ agricultural improvement. The third deposit is associated with the medieval-early modern farm mound to the SE of Area 1. Coring revealed an extensive cultural deposit over 1.5 m deep extending over at least 20 sq m downslope (NW from the farm ruin complex). The upper 50 cm sampled by a 1 x 2 m test trench (Unit 5) was rich in well preserved animal bone and a range of artifacts of apparent 18th-19th c date. Earlier deposits definitely exist in this area and provide an excellent opportunity to recover a long term view of economy and society at this important farm.

Midden Investigations Vatnsfjord 2005

The midden team collaborated in the ongoing excavations at Vatnsfjord for approximately a week, also participating in the field school and providing the Zooarchaeology module to the students. The field objective of the team was to locate bone bearing midden deposits associated with either the Viking age hall or the later medieval-modern farm nearby. While it appears that the Viking age midden deposits have probably been destroyed in the 18th to 19th c, the middens team did locate rich midden deposits dating to the early-mid 20th c, and a separate set of deeply stratified midden deposits extending from the 19th c backwards. Further investigations are certainly warranted to continue the search for medieval bone bearing deposits beneath the early modern deposits sampled, and it is likely that additional small samples of Viking Age animal bone will emerge from the continuing excavations around the structures.

Figure 1. Location of midden deposits (view from W)

Taphonomy and conditions of bone preservation: The natural substrate of most of the Vatnsfjord site appears to be loosely compacted gravels (small to cobble sized) sorted into a series of ancient beach ridges running roughly parallel to the modern shore line. The Viking age site (area 1) appears to have occupied one such beach terrace and spread its midden deposit down towards a more recent seaward terrace to the north (area 3). After the abandonment of the Viking age site area, the main occupation seems to have shifted to the SE, with structures and midden deposits building up around the farm mound associated with the medieval church and churchyard (area 5). While the substrate in this area seems to be gravelly, the depth of deposit seems to have altered drainage conditions, producing very damp conditions in the lower cores (> 1.25 m). The curious area 4 mounded midden appears to be resting upon a rocky scree slope deposit at the base of the cliffs to the W of area 1. These varied substrates produce different conditions for bone preservation, with the rocky and gravelly deposits presenting the least favorable conditions of preservation. Soil pH varies considerably across the site, from nearly neutral (6.5-7.0) in the Viking age area 1 to slightly acid (5.5-6) for the lower peat ash deposits in area 3. The higher (less acid) soil pH explains the generally good-excellent conditions of bone preservation in area 1 and area 4 and 5. Further investigations will clarify the situation, but it should be expected that conditions of bone preservation will vary across the site.

Field Methods

The midden team began investigations with patterns of cores (making use of both the Dutch-type auger and the tube-type Oakfield soil corer) placed both opportunistically where surface indications were favorable and more systematically to

provide fuller area coverage. Where cores indicated potentially useful concentrations of organic cultural deposit, test trenches (1 x 1 m or 1 x 2 m) were set out on a rough N-S orientation and excavated stratigraphically, with one profile drawn and horizontal context/unit plans drawn where these were useful (see site record register and site archive for all plans and profiles drawn, photographic archive is digital and in attached CD). Where very dense concentrations of artifacts and bones were encountered, the deposits were dry sieved through 4 mm mesh.

Test Trenches: Areas 3 , 4, & 5

Figure 2. Area 3 was opened as a 1 x 1 m test trench in the area of the thickest apparent cultural deposit indicated by coring transects 1. Figure 2 provides the general context of the unit, downslope from the main Viking age excavation area.

A 1 x 1 m test unit was opened on the N side of the mound, and immediately encountered dense masses of broken window and bottle glass, whole glass vessels (including an inkwell), iron straps, cast iron, anthracite coal, a plastic comb, partly preserved nylon underwear, various automobile parts and many well preserved animal bones. After consultation with the rest of the Vatnsfjord team, we sampled these mid-20th c deposits before continuing below to investigate the depth of deposit and attempt to assess the period of occupation. Table 1 presents a qualitative impression of the presence and approximate abundance of the 20th c animal bone. Fragments of clay pipe (interior diameter suggesting late 18th-early 19th c date) were found on the top of the remaining midden deposit, suggesting that the widespread clearance of the Viking age midden deposit may have happened about this time. The subsequent cryoturbation of the overlying layers (which may in fact be grey subsoil mixed with earlier midden deposits) may relate to “little ice age” events in Isafjord.

Figure 3. The profile close up photograph of the W profile of the Area 3 1x1 m test unit. This is the same section of profile as was sampled with Kubiena tins for soil micromorphology.

Area 4

Area 4 was located at the NW side of an upstanding conical mound about 2 m high and approximately 5 m in diameter that had been identified by the modern farmer as both a recent midden and a place where refuse had been discarded for a long time. The mound is nearly 100 m away (uphill) from the Viking age site area and is unlikely to be associated with the early occupation, but it proved (as described) to have rich 20th c deposits overlying dense peat ash layers which probably extended back into the early modern period.

Figure 4: Location photograph of area 4 mound relative to the Viking Age excavations, showing Ramona Harrison and Yekaterina Krivogorskaya coring the mound prior to opening the test unit.

Figure 5 illustrates the stratigraphy of the longer 2 m S side of Unit 4, with 20th c midden directly under the turf, extending 25-40 cm deep. Beneath was nearly 50 cm of peat ash, which lay atop a slanting surface of boulder till, the natural subsoil. The peat ash deposit was nearly free of bone or artifacts, and was thus difficult to date, but it resembled other early modern peat ash midden deposits (eg. Skálholt, Viðey) which also proved to be nearly all peat ash with few inclusions of any sort.

Area 5 Middens near the Farm Mound

This unit was not carried to subsoil due to time constraints, but coring at the base of the unit indicate that there is over 1.5 m of cultural deposit in this area. Subsoil was not reached in any core in this area. It would appear that substantial midden deposits exist over a wide area in this part of the site, and that very substantial bone and artifact collections can be rapidly made from the early modern-19th c layers at the top.

Figure 6 Shows the location of 5 cores taken near the later farm mound in relation to the modern church and medieval-modern churchyard. All struck rich cultural deposits, most extending to the maximum depth of the core.

Figure 7 Illustrates the rich midden deposits revealed by the coring of the midden associated with the farm mound-whole bones in excellent condition were brought up in a 15 x 5 m area, with no bottom of the cultural deposits reached by the full length of the Dutch core (120 cm). It appears that the rich carpet of buttercups covering the midden and farm mound actually corresponds to the approximate limits of the midden deposit. The actual extent of the midden remains to be determined, but it appears to be both large and rich.

Figure 8 Illustrates the Area 5 test unit (1 x 2 m)

Coring Results: The opportunistic cores were mainly associated with the placement of the three test trenches excavated (areas 3, 4, 5) and are best discussed in that context. The results of the systematic coring program are:

Coring Transect 1: begins 5 m N of area 1, roughly opposite the paved door entrance to the hall. Bearing 20 degrees NE, the line of cores extends 35 m to the NE of the area 1 hall door.

Transect 1, core 1 : sterile brown andisol and turf roots, natural gravel surface at 20 cm

Transect 1, core 2 (core 1 + 5 m): sterile brown andisol and turf roots, natural gravel

surface at 20 cm

Transect 1, core 3 (core 1 + 10 m): sterile brown andisol and turf roots, natural gravel surface at 20 cm

Transect 1, core 4 (core 1 +15 m): turf roots and sterile brown andisol to 20 cm, then 10-15 cm of mottled organic with charcoal and calcined bone chips, natural gravel surface at ca 35 cm.

Transect 1, core 5 (core 1 + 20 m): turf roots and sterile brown andisol to ca 20 cm, then ca 20 cm of mottled organic with charcoal, natural gravel surface at ca 35-45 cm.

Transect 1, core 6 (core 1 + 25 m): turf roots and sterile brown andisol to ca 20 cm then 10-15 cm of mottled organic with charcoal, natural gravel surface at ca 35 cm.

Transect 1, core 7 (core 1 + 30 m): NB this core is on the N side of the beach ridge below the beach ridge cross cutting area 1, and seems to be beyond the early midden accumulation area. Turf roots sterile brown andisol, natural gravel surface at 20 cm, nothing cultural.

Interpretation of Transect 1: it appears that there was a sheet midden downslope from the hall area, collecting between the two gravel ridges of the ancient beach terraces, with the greatest depth somewhere between 15-20 m from the door of the hall (more or less standard location for early Iceland, as at Sveigakot in Mývatnssveit). As the test trench (area 3) demonstrated, this sheet midden has been severely truncated and largely destroyed by early modern field flattening/amendment activities and unfortunately probably does not now represent a highly profitable target for archaeology. Additional test units in this area may still provide some bone, and could be considered for future seasons.

Coring Transect 2 Runs 15 m to the SW on a bearing of SW 100 degrees from grid point 894/1040. Transects 2, 3 and 4 radiate from this grid point (near the second turf walled structure) were set to determine if early midden remained in the area to the W of the main area of Viking age structures (the answer was negative).

Transect 2, core 21 : sterile brown andisol and turf roots, natural gravel surface at 20 cm

Transect 2 core 22 (core 21 + 5 m). sterile brown andisol and turf roots, natural gravel surface at 20 cm

Transect 2 core 23 (core 21 +10m). sterile brown andisol and turf roots, natural gravel surface at 20 cm

Transect 2, core 24 (core 21 +15 m). sterile brown andisol and turf roots, natural gravel surface at 20 cm

Coring Transect 3 Runs 15 m to the W on a bearing of 90 degrees W from grid point 894/1040.

Transect 3, core 25 sterile brown andisol and turf roots, natural gravel surface at 20 cm

Transect 3 core 26 (core 25 + 5 m) sterile brown andisol and turf roots, natural gravel surface at 20 cm

Transect 3 core 27 (core 25 + 10 m) sterile brown andisol and turf roots, natural gravel surface at 20 cm

Coring Transect 4 runs 15 to the NW on a bearing of 45 degrees from grid point 894/1040.

Transect 4, core 28, sterile brown andisol and turf roots, natural gravel surface at 20 cm.

Transect 4 core 29 (core 28 +5) sterile brown andisol and turf roots, some flecks of charcoal, natural gravel surface at 20 cm

Transect 4 core 30 (core 29 +5) sterile brown andisol and turf roots, natural gravel surface at 20 cm

Interpretation of Transects 2, 3 and 4: these transects were designed to test the hypothesis that a sheet midden had developed near the second structure in area 1, 2. The results indicated a largely sterile area with only a few charcoal flecks circulating in the soil matrix- no midden was present in this area to the E of the main excavation area.

Discussion & Recommendations

The 2005 midden investigations at Vatnsfjord suggest that:

. • Viking age sheet midden deposits once extended northwards (down slope) from the hall area (area 4). These deposits rested upon the charcoal horizon identified with first settlement in the area, and are stratigraphically early. Unfortunately, these deposits appear to have been truncated and largely dispersed sometime in the 18th-19th c (possibly as part of an effort to improve the later farm homefield). The best chance for recovery of more Viking age bone material would thus seem to be in continued excavation directly around the structures or in the possible fill of a still-undiscovered pit house. The early sheet midden north of the Viking age structures is thus probably not a profitable excavation target, nor are there sheet midden deposits to the east of the structures.

. • The conical mound of area 3 certainly holds a very substantial amount of well preserved 20th c bone and artifacts, and would be an excellent target for a coordinated ethno-archaeological project carried out in partnership with community elders able to recall life ways of the first half of the 20th c. The nearly pure peat ash midden below the 20th c deposits (perhaps significantly free of the chunks of

anthracite coal found in the upper layers) appears similar to other early modern deposits apparently associated entirely with hearth or stove cleaning. The low bone and artifact densities of these layers combined with their more acidic pH make them a less attractive target for excavation.

. • The deep and extensive midden deposits associated with the farm mound complex (area 5) provide the most promising subject for long term investigation. While the 2005 test unit mainly reached 18th-19th c deposits, the depth of deposit and the wide extent of the midden sampled, combined with the excellent conditions of organic preservation indicate the potential for medieval deposits. It is likely that multiple test units will be needed to localize the best deposits extending furthest into the past. The rich concentrations of bone and artifacts recovered in the partially completed 2005 test unit would make excellent teaching material for the field school as well as providing an important record in their own right. Our recommendation is that the Area 5 middens be further investigated with a coordinated program of test units, coring, and (if possible) geophysics.

Ragnar Edvardsson

Resistivity survey on the Vatnsfjörður farm mound

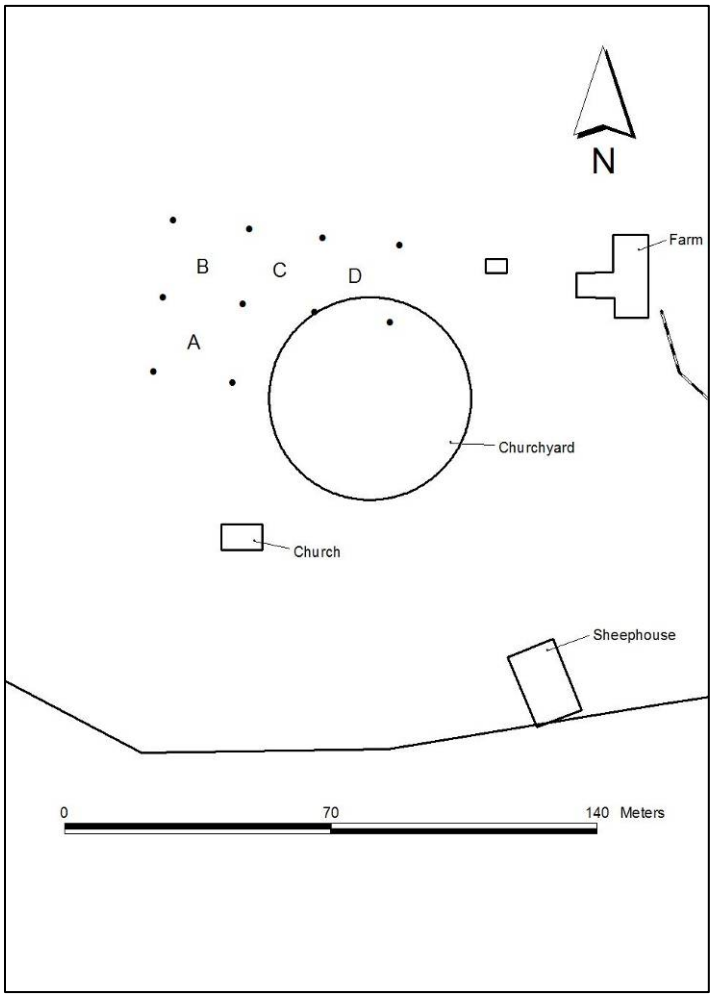


Fig 1. Survey areas referred to in the text

Resistivity survey on the farm mound in Vatnsfjörður was conducted along side the excavation on the Viking age remains. It was clear from the 2003 and 2004 seasons that there were extensive archaeological remains in the farm mound dating from the settlement to the 20th century. Therefore it was of a great importance to get an idea of the condition of the mound, especially if 20th century construction had disturbed the remains. It was hoped that the survey could determine if it would be feasible to begin excavating the farm mound and where to begin.

The area north and west of the churchyard was selected for resistivity survey and the area was divided into four main areas A, B, C, and D. Each area was 20 * 20 meters in diameter and in total 1600 square meters were surveyed.

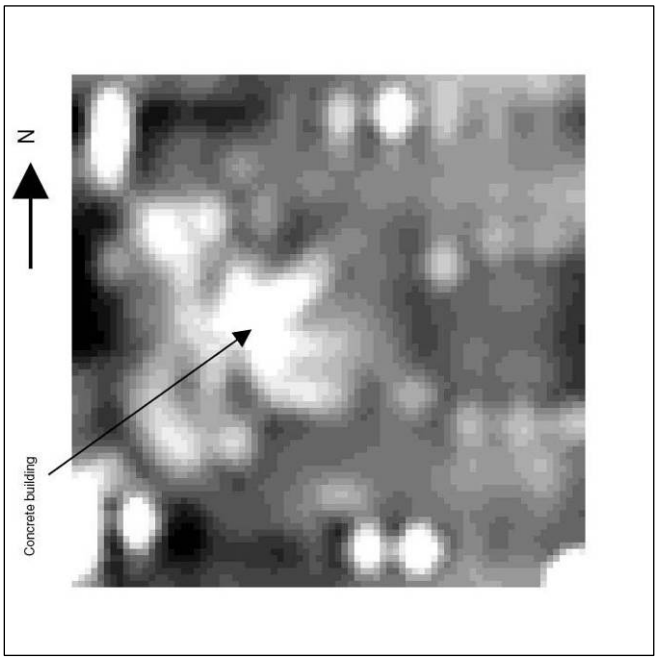
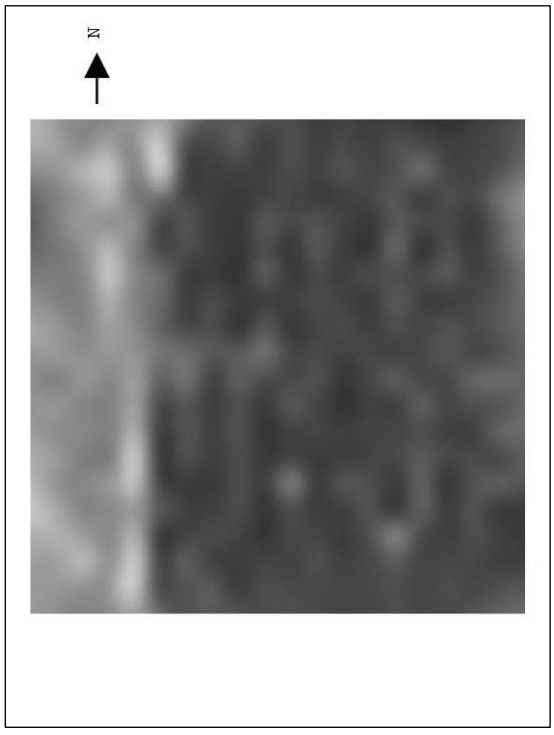


Fig 2. Area A

Area A: Resistivity survey showed that the area had been badly disturbed by buildings that had been there in the 20th century. The last residence of the Vatnfjörður farmer stood in the western part of area A. This house was built in the early 20th century and was torn down in 1960. The house was made of concrete and had a cellar which had been dug into the mound. The remains of this building is clearly visible in picture.

Fig 3. Area B



Area B: Resistivity showed a lot of structural remains in area B and no remains of 20th century concrete buildings were detected. The picture shows clearly remains of walls and buildings and it is likely that they are from different periods.

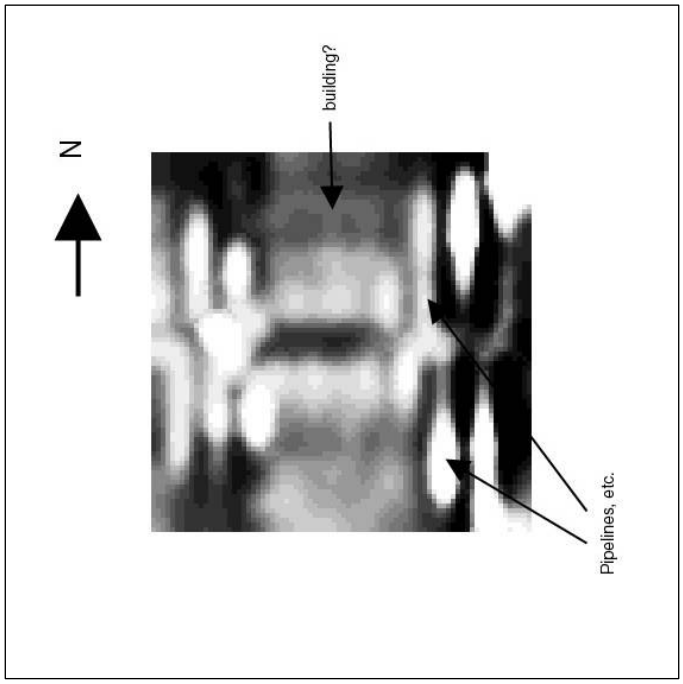


Fig 4. Area C.

Area C: In area C resistivity showed regular patterns which probably are the remains of trenches that were dug in the 20th century. These patters are very clear and probably are pipelines of some short, for sewage, drainage, etc., from houses that stood on the farm mound during its last occupation. In the northern part of area C a building can be seen that probably lies deeper than the 20th century disturbance. It is possible that this building has been damaged by 20th century construction.

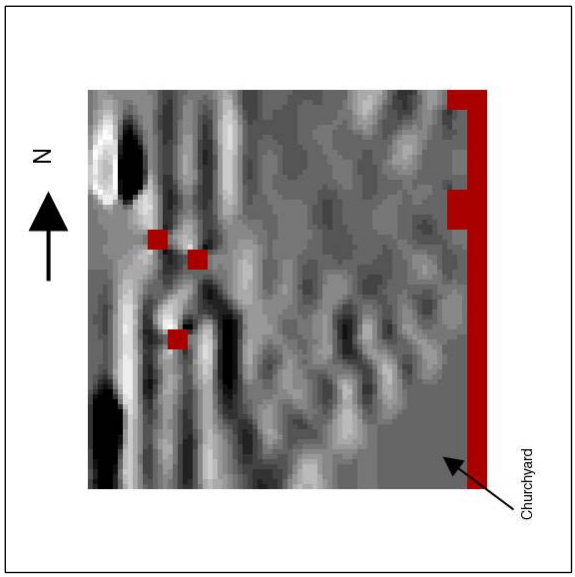


Fig 5. *Area D*

Area D was on the lowest part of the farm mound and large parts of the area seem to have little or no cultural layers. This area seems to have a very little soil on top of the undisturbed gravel layer which was recorded during the excavation of the longhouse. On the eastern part of area D regular patterns were visible that are similar to those recorded in area C, which probably are pipelines and trenches from the 20th century.

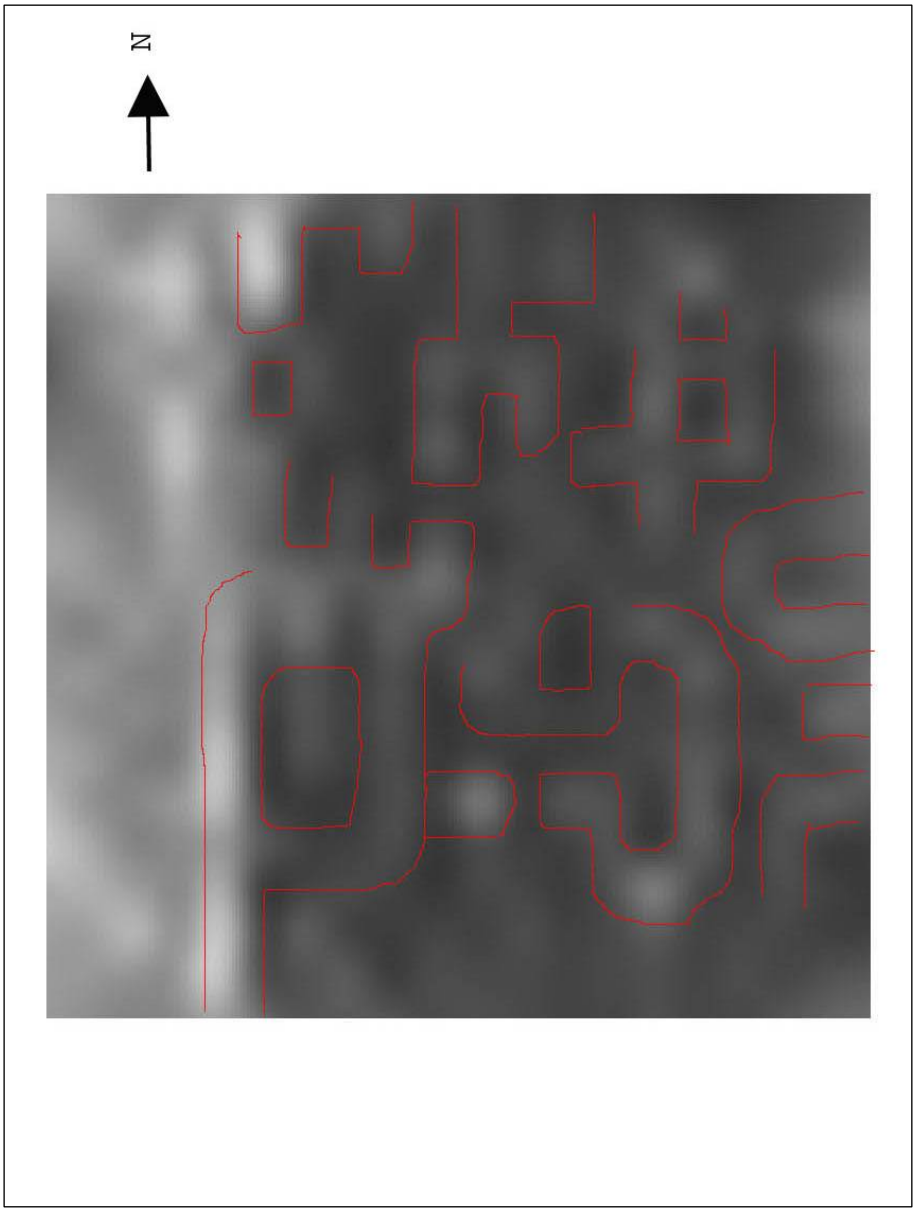


Fig 6. Suggested Interpretation

Main conclusions of the resistivity survey

The resistivity survey on the farm mound at Vatnsfjörður show that the mound has been disturbed by 20th century constructions. In all areas, except area B, 20th century remains were recorded, remains of houses, pipelines, etc. Area B seems to be the least disturbed area and the survey showed walls and structures from different periods. The resistivity survey suggest that area B is the least disturbed and is best suited in the case of further excavation on the farm mound.

Colleen Batey:

Interim Finds Statement

INTRODUCTION

158 finds units were recovered during the course of this excavation season from Areas 1 and 2. The majority of the finds are of iron, which is badly corroded and industrial debris which includes evidence for the recycling of iron objects which were presumably beyond repair. Additional materials include copper alloy, glass (of vessels and beads), stone (including flint and jasper), ceramics, and a single gold find. All are discussed in more detail below by material and specific contexts which have particularly notable concentrations of finds are distinguished.

GOLD (preliminary observations based on comments by Dr Niamh Whitfield)

Find 114 from layer 287 is a gold foil fragment originally taken from a piece of composite Irish metalwork, perhaps similar to the type known as a kite brooch, as illustrated in this example from Waterford, Ireland (Whitfield 1997) or a pseudo penannular brooch (although an ecclesiastical origin cannot be ruled out).

The panel is bounded by a wire border and decorated with a loose gold filigree interlace "drawn" by a three-strand band. This consists of a central twisted wire (probably a twisted ribbon rather than a 2-ply rope twist), flanked by far finer round wires displaying helical marks on their surface. The band is propped upon uprights of gold making false cloisons on the blank spaces between the outline of the pattern. There are granules in two of the corners of the foil, one enclosed by a loop emanating from the panel border. An empty circle of wire next to the single granule may have contained a further granule. It is uncertain how it would have been attached. On stylistic grounds, it probably dates from the second half of the 9th century to the second half of the 10th century and could be part of a newly identified group from Ireland which includes a recent find from Temple Bar Dublin (Whitfield 2005).

This is the first such find from Iceland and indeed there are very few items of gold from the Viking Age in Iceland (a “button” of gold wire from Kápa in Þórsmörk amd and stray find of a gold ring from Skarð in Haukadalur ; Eldjárn and Friðriksson 2000, 392 and 605). This fragment of gold loot might be more comparable with the fragment of silver brooch from the Sandmúli hoard which is thought to have been Irish in origin (discussed in Eldjárn and Friðrikkson 2000, 373-374). There is however no evidence that the gold fragment is part of a hoard and indeed it has a crude secondary perforation which indicates that it was used as a pendant for its decorative features rather than its weight.

COPPER ALLOY

2 small fragments of copper alloy sheet were recovered from layer 204, Finds 022 and 023. Find 022 is somewhat indeterminate and 023 has been rolled to form a small peg or rivet.

IRONWORK

Nails and Rivets

88 of the finds units recorded are of iron of which 31 are currently un identifiable. Of the remaining 55 items , 42 are nails, shanks or parts of rivets. There are notable concentrations in contexts 200 of Area 2 , 209 of Area 1 and 288 of Area 2 (between them, accounting for 27 of the overall group). In general many of the pieces are non-descript although a few are in better condition, such as Find 129 from layer 288 which has a square flat head and bent nail tip, and from the same layer Finds 73 which has a circular flat head and bent nail shank and 115 which has a notably long shank and flat round head. Find 08 from layer 200 is a chunky nail with a round flat head and bent shank. Of the few rivets and rivet plates, Find 21 from layer 206 is a small rivet with part of the plate remaining and Find 107 from layer 209 appears to be a rivet plate.

Knives

Of the items which are of other functions, there are a small number of iron knife blade parts, such as Find 135 from layer 325, Find 110 of layer 209 and Find 30 from layer 74 . The latter is potentially the more interesting as it comprises the blade and tang junction and shows the tang to be slightly offset from the blade . Find 125 from layer 288 comprises 3 conjoining fragments of an iron knife of distinctive. It has a square shaft and a slightly flattened blade, closely resembling an example from the Viking settlement at Borg in Northern Norway (Arrhenius and Fennö Muyingo 2003, 168 fig 9D-1)

Mounts

Other items may be interpreted as mounts for wooden objects perhaps, such as Find 6 from layer 201 which is a bent piece of circular section or Find 26 from layer 209 which is a flat fragment of metal forming a band, similar perhaps to Find 12 from layer 200. Find 101 from layer 313 was identified on site as being part of a large buckle, perhaps of the type used in horse gear. However, it is of irregular shape and appears to be complete, with a section projecting at right angles to the main part. This is provisionally identified as a mount, and there appear to be traces of wood incorporated into the corrosion. Find 62 from layer 209 is metal sheeting which is slightly curving and may be from a vessel.

INDUSTRIAL DEBRIS

It is important to consider the industrial debris from this excavation in conjunction with the evidence of the iron material. Find 98 from layer 302 in Area 2 comprises the basal debris of a bowl furnace which has clear traces within it of partially melted down fragments of iron nails amongst other items of ironwork. Other contexts which include very notable collections of industrial debris include layers 204 (well in excess of 800gms) , 302 (in excess of 500 gms) , 319 and 324 (54.8 kgs) and 332 (4.279 kgs) from Area 2. In Area 1, midden layer 209 stands out as the richest in such debris (with 107 gms).

It is clear from these figures, that some of the contexts in Area 2, particularly 319 and 324 (identified as a slag dump) and 332 include amounts of material which is destined to be recycled, and the identification of bent nail shanks, presumably bent as part of the removal process from wooden constructions, such as door furniture, ships´ timbers or similar. Of these three contexts, 332 would seem to be the most identifiable as a possible cache on a floor deposit, being recovered underlying a collapse of turf, and labelled as a charcoal-rich layer. Contexts 204 and 302 both appear to be close to the surface and include rooty inclusions.

GLASS

Vessel Glass

3 pieces of vessel glass were noted, all from layer 200 in Area 2. Find 013 is pale green, Find 015 of more olive coloration and Find 9 is purple. The green pieces are probably from wine bottles and none need to be of any great antiquity.

Glass Beads (based on comments by Elin Ósk Hreiðarsdóttir)

5 finds units of glass beads have been noted. Find 32 from layer 87 in Area 1 is a silver segmented bead, assigned to the category of E110 by Callmer (Callmer 1977). It is of blown glass and of a type common throughout the Viking World, most commonly in female pagan Viking burials. There are several examples in Iceland, such as from Ketilstaðir I Norður-Mulsyslu and Daðastaðir I Norður-Þingeyjarsyslu (Hreiðarsdottir 2005, 97, 112 and 113) and a particularly large group from the newly discovered (2004) rich female pagan burial found in the mountainous East of Iceland (pers comm. Sigurður Bergsteinsson) this is the first to be recovered from the West of Iceland. It is considered most likely that these beads were manufactured in the Eastern Mediterranean (Callmer 1977, 98).

Also from Area 1, from layer 209 are three further finds of beads. Find 50 is a single section of a yellow segmented bead of blown glass , of Callmer´s type E030. From the same context, and recovered during processing of sieved material, two finds 137 and 139 comprise 3 small glass beads of a mass-produced type made from a glass tube. These are not commonly found, except in the “mountain Lady” group, and this lack of examples is considered to be due to a bias in recovery strategies durd to the very small size. They are Callmer´s type F070 and may share a source of origin

with the type E beads.

The final example, Find 146 from layer 287 from Area 2 is a blue glass bead provisionally identified as of Callmer´s type F060.

In terms of dating, types E and F all fall within the 10th century and particularly in the case of layer 287 (which is actually the same as 209) which also included the gold fragment discussed below this is particularly significant as the gold piece may originally have been from a 9-10th century Irish original, and may indicate that there is not a long period of residuality in these pieces.

STONE

Within this category there are 2 finds of schistose whetstone (Finds 014 and 083 both from layer 200) which are probably from the same original whetstone and which is a Norwegian import to Iceland. From the same context , Find 038 is a section of a broken circular weight of local stone which is likely to be a fishing weight, this is difficult to date specifically. In addition, Find 046 from layer 204 is a fragment of red stone which may be worked, it is not clear whether this is stone or actually ceramic and further examination is required.

There are 4 fragments of flint/chert, 3 of which are more like flakes (Find 111 and 051 from layer 209 and Find 017 from layer 200) and a single chunk, Find 027 from layer 204. The flakes may have been utilized, although the quality is not good it is presumed they are imported to Iceland. In addition there are 3 flakes of green jasper, 2 from layer 209 (109 and 138) and 1 from layer 288 (Find 027). There are several different colours of jasper which are known from Iceland and this is an indigenous material, in some cases used for strike a lights (Smith 2000, 217).

CERAMICS identifications by Gavin Lucas

4 sherds of ceramic vessels include a surface find (132) of a German stoneware flagon which probably dates to the period 17 -19th century and is of a Bellarmine type jug. From Area 2, a stoneware fragment with blue marbled decoration (Find 018 from layer 200), Find 025 from layer 204 which is a possible spongeware rim fragment and Find 080 from Layer 202 which is a white glazed rim sherd. With the exception of the surface find, all pieces are datable to the period post 1800.

CLAY PIPE

A single fragment of clay pipe stem was recorded from layer 200, Find 082.

WHALEBONE AND BONE

Find 096 from layer 201 is a fragment of burnt whalebone of indeterminate function.

However, Find 049 from layer 209 is a complete bone pin with long shank and slightly spatulate and worked head. There is a wide range of simple worked pin heads , some perforated and others, as in this case, not so. The simple serrated edge of this example is a little similar to Find 6904 from York, although undecorated (MacGregor et al 1999, 1952 fig 911).

SIGNIFICANT GROUPINGS OF MATERIAL

Contexts 287 and 209 in Area 2 are the same midden deposit. Between them, they include the gold fragment Find 114, concentrations of nails and two knives (Find 26 and 110), a few flint and jasper flakes, most of the glass beads and a very small amount of industrial debris. This is defined as a black, rich stoney midden layer which is identified in both Area 1 and 2. Although all the material can be assigned to a Viking age date and a midden context, the recovery of the unusual gold find in conjunction with several glass beads, and even the flakes and knives could also be an assemblage which originally formed part of a pagan grave assemblage, with material dispersed within the midden from a nearby grave disturbed in antiquity. At this stage such an original context cannot be ruled out completely. Although the excavator has pointed out the lack of human remains surviving in deposits which otherwise have excellent bone preservation.

Context 302 in Area 2 comprises only 4 finds units, but does include the basal debris fragment noted above (Find 98). Apart from that piece the rest of the industrial debris is of minor consideration. Context 319/324 do however have the greatest concentration in terms of weight for industrial debris and seem to represent a dump or pit.

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