SKAGAFJÖRÐUR CHURCH AND SETTLEMENT SURVEY

Hegranes Settlement Survey: Interim Report 2015

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Picture on front page – Test excavation, Keflavík farmstead.

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Skagafjörður Heritage Museum

The Skagafjörður Heritage Museum is a center for research on local history and cultural heritage in the Skagafjörður region, North Iceland. It is affiliated with the National Museum of Iceland and its main exhibition at the old turf farm of Glaumbær is one of the most visited national heritage tourist attractions. The Archaeological Department of the museum was established in 2003 and engages in contract and research driven archaeology both within and outside the region. The core long-term research programs center on fundamental issues surrounding the settlement and early medieval church history of Skagafjörður and the North-Atlantic region with a focus on developing methodological and theoretical approaches to the geography of early Christian cemeteries. The department is involved in multifaceted interdisciplinary collaboration with Icelandic and international institutions and specialists. Its research portfolio includes bioarchaeology, early metal production, settlement studies, as well as the methodological aspects of archaeological surveying.

Fiske Center for Archaeological Research

The Andrew Fiske Memorial Center for Archaeological Research at the University of Massachusetts Boston was established in 1999 through the generosity of the late Alice Fiske and her family as a living memorial to her late husband Andrew. As an international leader in interdisciplinary research, the Fiske Center promotes a vision of archaeology as a multi-faceted, theoretically rigorous field that integrates a variety of analytical perspectives into its studies of the cultural and biological dimensions of colonization, urbanization, and industrialization that have occurred over the past one thousand years in the Americas and the Atlantic World. As part of a public university, the Fiske Center maintains a program of local archaeology with a special emphasis on research that meets the needs of cities, towns, and Tribal Nations in New England and the greater Northeast. The Fiske Center also seeks to understand the local as part of a broader Atlantic World.

Skagafjörður Church and Settlement Survey

The Skagafjörður Church and Settlement Survey (SCASS) seeks to determine if the settlement pattern of the 9th-century colonization of Iceland affected the development of the religious and economic institutions that dominated the 14th century. The research builds on the combined methods of two projects, the Skagafjörður Archaeological Settlement Survey and the Skagafjörður Church Project. One has focused on Viking Age settlement patterns. The other has been investigating the changing geography of early Christian cemeteries. Together, the research seeks to understand the connections between the Viking settlement hierarchy and the Christian consolidation.

Contents

Summary

On Hegranes, in Skagafjörður, Northwest Iceland, five farms were investigated in 2015 with a program of cores and test excavations in order to estimate farmstead size and establishment date. This project is part of the larger Skagafjörður Church and Settlement Survey (SCASS) and over 3 years all the farms on Hegranes will be surveyed. The five farms were Ás, Garður, Hróarsdalur, Keflavík, and Keldudalur. Using the H1 tephra (AD 1104), as a horizon marker, the largest farmstead was Ás (14,200 m^2), which is also potentially the earliest, just after the beginning of settlement. Keldudalur (11,400 m^2), Keflavík (6700 m^2) and Hróarsdalur (5,300 m^2) were all founded before a mid-10th century tephra fell. The most recent and smallest by AD 1104 was Garður (4,500 m^2), which was established between AD 1000 and 1104. For later periods (AD 1104-1300 and post-1300) the size order was consistent, except for Garður, which became the third largest farm of the five investigated.

Útdráttur

Sumarið 2015 fóru fram fornleifarannsóknir á fimm jörðum í Hegranesi í Skagafirði. Rannsóknirnar voru í formi ítarlegrar könnunar með töku kjarnabora og könnunarskurða og var ætlunin að kanna aldur jarða og stærð þeirra í upphafi. Rannsóknirnar voru hluti af stærra rannsóknarverkefni, Skagfirsku kirkju- og byggðasögurannsókninni þar sem allar jarðir í Hegranesi verða kannaðar með tilliti til aldurs og byggðaþróunar. Jarðirnar fimm voru Ás, Garður, Hróarsdalur, Keflavík, og Keldudalur. Gjóska úr Heklu sem féll 1104 e.Kr. var notað sem leiðarlag varðandi skilgreiningu á elstu byggð. Ás reyndist stærsta jörðin fyrir gjóskufallið (alls 14,000 m^2) og var jafnframt elsta jörðin, byggð við upphaf landnáms. Keldudalur (11,400 m^2), Keflavík (6700 m^2) og Hróarsdalur (5,300 m^2) voru allar í byggð á fyrri hluta 10. aldar. Yngsta býlið reyndist Garður (4500 m^2), stofnað á milli 1000-1104 e.Kr. Stærð jarðanna tók litlum breytingum eftir 1104 og 1300 nema býlið Garður sem var orðin þriðja stærsta jörðin um 1300.

Introduction

In 2014 a joint project of the Skagafjörður Heritage Museum and the University of Massachusetts Boston, called the Skagafjörður Church and Settlement Survey (SCASS) received a grant from the Division of Polar Programs (PLR) of the National Science Foundation (NSF). The aim of the project is to systematically survey for the oldest settlement and church history in the area of Hegranes, a rocky promontory in the middle of the Skagafjörður valley in North Iceland. The area is well suited for study as it is geographically distinct and there is evidence for possible cemeteries at nine of the dozen original settlement farms. The primary objectives of the settlement survey are to identify all farmsteads in the Hegranes region, establish their earliest date of occupation, and to measure their extent at different periods in history.

The summer of 2015 was the first of three planned years of intensive survey of farmsteads in the Hegranes region. Five farms were investigated: Ás, Garður, Hróarsdalur, Keflavík, and Keldudalur. The survey field season started on the 6th of July and finished on the 14th of August.

Primary objectives for 2015 field season were:

1. Identify buried or abandoned areas of past domestic occupation and farm activity.
2. Estimate the extent of farmstead deposits at each farm during three periods of occupation: pre-1104 A.D., 1104-1300 A.D., and post-1300 A.D.
3. Identify and date the earliest occupational deposits at each farmstead.
4. Identify early Christian household cemeteries associated with the farms.
5. Investigate the history of changing patterns of farm and cemetery distribution in relationship to the institutionalization of secular power and the Catholic Church in Iceland.

Icelandic farmsteads and settlement survey

Icelandic farms are dispersed throughout the habitable coastal and lowland areas and interior valleys. Historically, farms consisted of a central concentration

of turf structures, the immediately surrounding infields, the outfields, pastures, and other resource locations that were owned by a specific farmer (Amorosi, et al. 1998; Urbańczyk 1999). Most farms also relied on extensive grazing lands that were communally owned and managed. During the summer, livestock were moved to the communal pastures while grass was grown in intensified homefields and outfield areas to produce winter fodder (Friðriksson 1972).

There were also productive activities that took place well away from the main farmstead, for example summertime dairy production at shielings, turf cutting, charcoal production, bog iron ore collection, and fishing (Brown, et al. 2012; Lucas 2008; Sveinbjarnardóttir 1991; Vickers and Sveinbjarnardottir 2013).

Comprised of dispersed infrastructure, lands, and resource rights, the farm is difficult to identify archaeologically and for this reason the survey is primarily focused on the **farmstead** rather than the **farm** as a whole. The farmstead is the central concentration of farm buildings, including the central domestic buildings, barns, and other ancillary structures (Lucas 2009; Milek 2006; Ólafsson and Ágústsson 2004; Vésteinsson 2004). The location of Icelandic farmsteads could be stable and often results in significant concentrations of built up turf and midden material (primarily ash) referred to as farm mounds (Vésteinsson 2010). Many farm mounds have been occupied since the initial settlement of Iceland over a millennium ago. While these are readily identifiable in the landscape (most are still occupied today), the earlier horizons are usually covered by later occupations making them difficult to access. Farmsteads that were occupied for shorter periods, either because the farm was abandoned or because the farmstead was relocated to a new spot on the same farm (Bolender et al 2011), are often visible on the surface but in areas with significant soil accumulation can be buried and difficult to identify using traditional surface survey methods.

Hegranes

Hegranes is a low, rocky region situated in the middle of the Skagafjörður valley bottom. It is currently separated from the rest of the valley by the glacial rivers of Héraðsvötn which flow on both its west and east sides. The northern end projects as a low headland in to the fjord. Today, much of the region is exposed rock and heathland. Although it is clear that the environment was impacted by human settlement and subsequent land use the nature and extent of the alternations is currently unclear. There is evidence of localized patterns of soil erosion and deposition as well as wetland formation. According to the Jarðabók, Hegranes had 12 principal farms: Keflavík, Garður, Ás, Ríp, Hamar, Keta, Egg, Keldudalur, Hróarsdalur, Kárastaðir, Helluland, and Utanverðunes, and many smaller subfarms and cottages. It also records two abandoned farms, Ferjuhamar, Ásgrímsstaðir, which are mentioned in other earlier sources (Magnússon and Pálsson 1965). All but two of the large farms (Ásgrímsstaðir and Ferjuhamar) continue to be occupied today. Hegranes is unusual for its historical and archaeological evidence for a large number of household churches and cemeteries. Nine of the farms have some evidence pointing to the presence of an early church or cemetery including, Ríp, Keldudalur, Ferjuhamar, Ásgrímsstaðir, Helluland, Utanverðunes, Keflavík, Garður (Hegranesþing), and Ás (Sigurðardóttir 2012). The discovery of the previously undocumented early Christian church and cemetery at Keldudalur in 2002 (Zoega 2015) has raised the question of how many of the other farms may have had cemeteries.

Survey Methodology

The survey utilizes cores to identify buried farmsteads and to map the extent of known and newly discovered farmsteads over time. Small test excavations, usually 1x1 meter or 1x2 meters, are carefully placed in the oldest, well-preserved sections of middens to collect soil samples for flotation and tephra identification. Tephrochronology and radiocarbon dates from preserved organics (preferably barley seeds) in the stratigraphically oldest layers in the midden are used to refine the farmstead establishment date. These survey methods are augmented with geophysical survey where appropriate to gain a better understanding of the farmstead layout and structure.

Two core types were used in the survey: a JMC Backsaver soil sampler push probe with an 18-inch long 1.25-inch wide sampling tube which fully extended can reach a depth of 120 centimeters, and an Eijkelkamp meter-long single-gouge auger with a 6 cm diameter, which with multiple extensions can reach a depth of up to 5 meters. Wherever possible, cores probed to the prehistoric tephra layers (e.g., H3 or H4) ensuring that the entire potential period of occupation was sampled. All tephra layers, soil horizons, and inclusions (cultural and otherwise) were recorded. When cultural material was identified (e.g., charcoal, ash, midden, floor, or turf not belonging to natural in situ bog deposits) additional cores were taken, filling in the intermediate areas in the survey grid to more precisely determine the nature, extent, and dates of the deposit. For the survey discussed here and the abandoned small farms survey over 1500 cores were taken in 2015.

Excavation utilized a single context methodology following protocols modified from the Museum of London Archaeology Service (Westman (ed.) 1994). Excavation data, including context descriptions as well as sample, find, and photographic registries, were entered into a FileMaker relational database. For the 2015 survey discussed here and the abandoned small farms survey over 15 test pits were excavated.

Reconnaissance for buried farmsteads and other farm activity areas

In areas with sufficient soil accumulation to completely bury abandoned farmsteads, coring densities varied from 10 to 100 meter intervals depending on the geological conditions. Cores were generally taken every 40 m.

Farmstead coring and site size estimation

Known farmstead sites, including buried activity areas identified in the reconnaissance coring, were systematically cored to estimate the extent of the farmstead at various periods in history and to target the oldest preserved layers of midden for small text excavations. Coring generally concentrated at the edge of farmstead areas to better define their changing boundaries.

´Farmstead´ deposits

Small and infrequent anthropogenic inclusions in soils – such as ash, charcoal, and bone – are common near farmsteads and other activity areas. These are good indicators that an activity area or domestic site may be near but we do not count infrequent inclusions as contributing to the areal extent of the farmstead. Higher concentrations of anthropogenic inclusions, midden deposits, turf, dense cultural layers, and activity surfaces are included. For the purposes of the survey, farmstead deposits include:

Low density cultural layers – defined by anthropogenic inclusions amounting to 10-50% of the soil matrix (figure 1). These are assumed to result from indistinct and extensive deposition events that suggest regular activity typical of farmsteads or other farm production areas.

Figure 1. Core 151006 from Ás showing low density cultural deposit (LDC).

Middens – defined by anthropogenic inclusions amounting to more than 50% of the soil matrix that suggest the regular deposition of household or production area waste (figure 2). Middens are the result

of distinct and intensive deposition events associated with purposeful disposal.

Figure 2. Core 150604 from Keflavík showing a midden deposit.

Turf deposits – any evidence for a turf structure, including collapsed or levelled turf, are considered evidence of farm buildings. The organic content and percentage of soil in turf deposits is variable.

Figure 3. Core 150033 from Keflavík showing a turf deposit.

Dense cultural layers and floors – characterized by dense, compacted, and/or greasy cultural layers indicative of floors, extramural activity areas, or areas of intense deposition of organic materials. These deposits are often thin but are very distinct.

Survey chronology and the Skagafjörður tephra sequence

The survey relies heavily on datable tephra layers preserved in the soil stratigraphy. Skagafjörður has an early tephra sequence that allows for a fine-grained chronology of the changes in early settlement patterns (Larsen, et al. 2002). While tephra deposition can vary over small distances (Davies, et al. 2010) the basic tephra sequence is found throughout Skagafjörður and allows for a common dating system among farms and farmsteads, including sheet middens and relict field systems (Þórarinsson 1977). The dates of the historic eruptions roughly coincide with several major historical events (FIG. 2) including the original settlement of the island about A.D. 870, the end of mass migration to the island in 930, the conversion to Christianity in 1000, the establishment of the tithe law in 1097, the incorporation of Iceland into the Norwegian state in 1262, and the beginnings of the Little Ice Age in 1300.

Historic tephras:

- Hekla A.D. 1766. A black tephra usually found in turf or in the upper 10 cm of the soil sequence.
- Hekla A.D. 1300. A gray-blue to dark black tephra (Larsen 1984; Larsen, et al. 1999; Larsen, et al. 2002; Larsen, et al. 2001; Sveinbjarnardóttir 1992).
- Hekla A.D. 1104 (H1). This white or yellowish-white tephra is the most consistent in Skagafjörður (Eiriksson, et al. 2000; Thórarinsson 1967) and is readily identifiable in both natural and cultural stratigraphic sequences.

Landnám sequence tephras:

- Vj~1000 tephra. A blue to bluish-black layer whose source has not been determined but is likely to be either from Grímsvötn or Veiðivötn eruption dated to approximately A.D. 1000

(Boygle 1999; Ólafsson 1985; Sigurgeirsson 1998; Wastegard, et al. 2003).

- The mid-10th century layer. This blue-green layer is currently an un-sourced and undated layer that is found between the LNL and Vj~1000. There are several potential candidates for this layer, including the large A.D. 934 ±2 eruption of Eldgjá. (Fei and Zhou 2006; Hammer, et al. 1980; Thordarson, et al. 2001) or an A.D. 933 ±6 green tephra layer identified in the Lake Mývatn area from Veiðivötn, termed V-Sv (Sigurgeirsson, et al. 2013).
- "Landnám" or "settlement" layer (LNL). The layer is so-named for its association with the earliest settlements in Iceland (Andrew J Dugmore and Newton 2012) and is dated to A.D. 871 ±2, (Grönvold, et al. 1995; Zielinski, et al. 1997 [A.D. 877 ±4]). The tephra originates from the Vatnaöldur fissure swarm associated with the Torfajökull and Bárðarbunga volcanos (Andrew J Dugmore and Newton 2012; Larsen 1984). In general, this layer consists of two distinct tephras–an olive-green tephra overlying a white tephra. However, in Skagafjörður, only the green portion is present (cf. Hallsdóttir 1987).
- Black tephra before the LNL. The earliest tephra in this sequence is a dark black layer probably from the Katla volcano, but is not well dated (Wastegard, et al. 2003).

Prehistoric tephras:

- Hekla 3 (H3). A thick (generally 2-3 cm) white or whitish-yellow tephra dating to about 950 B.C. (Andrew J. Dugmore, et al. 1995).
- Hekla 4 (H4). A thick (generally 1-3 cm) white or yellowish-white tephra dating to about 2300 B.C. (Eiriksson, et al. 2000).

Farmstead stratigraphy and estimates of farmstead size at different periods

Chronological phasing of farmstead sizes primarily relies on two tephra layers: the white Hekla A.D. 1104 and the dark Hekla A.D. 1300. These layers are the most common in coring stratigraphy and often the easiest of the historical tephras to identify. Using these tephra layers to date cultural deposits allows for the chronological phasing of farmstead sizes and for farmstead sizes to be compared across contemporary temporal horizons. It also allows for the identification of changes in the size of individual farmsteads. Other tephra are used to help identify the overall stratigraphic sequence in the soil cores and to associate specific layers with historical periods. The resulting chronology allows for the estimation of farmstead size for three primary periods:

- *Pre-A.D. 1104,*
- *A.D. 1104-1300, and*
- *Post-A.D. 1300*

Deposits were also identified as belong to two, more inclusive, categories:

- *Post-A.D. 1104, this is especially useful where the Hekla A.D. 1300 tephra is not present or difficult to identify, and*
- *'All time', which simply denotes the presence of a farmstead deposit from any time period.*

Deposits categorized by these temporal phases based on whether or not they contained "farmstead" material.

Estimates of Farmstead extent

Deposits in cores that indicate areas of farmstead activity were divided into three simple categories for each chronological period: "yes," "no," and "maybe" based on the presence of any of the above discussed cultural deposits identified in any of the temporal phases. Deposits classified as "yes" for each temporal period were stratigraphically bound by the appropriate tephra layer(s). "Maybe" was used to classify farmstead deposits that could not be restricted to a particular temporal period. For example, a core with layers of midden and turf layers but without any tephra would be classified as "yes" for 'all time' but "maybe" for all other periods as the cultural deposits could date from anytime. Similarly, a core with midden below and turf above the H1 tephra but with no other tephras would

be categorized as “yes” for pre-1104 and “yes” for post-1104 but “maybe” for both the 1104-1300 and post-1300 periods as it is unclear when, post-1104, the turf was deposited. “No” classifications indicate the absence of any farmstead deposits for the designated time period or for the core as a whole.

The distribution of “yes”, “maybe”, and “no” deposits for each time period are plotted in GIS and an outline representing the furthest extent of contiguous farmstead deposits is drawn resulting in an estimation of the areal extent of each farmstead for each period. “Yes” deposits are used to define the basic shape of the farmstead outline. Then “maybe” deposits for each period are used to refine the basic outline based on the distribution of “yeses”. In general, “no” deposits were ignored if they were contained within an area surrounded by “yes” and “maybe” deposits. Boundaries to the areal extent were placed approximately halfway between the last “yes” deposit and the first “no” deposit at the edge of the contiguous farmstead deposits. Where a “maybe” deposit was between the last “yes” and the first “no” deposit, the boundary was drawn passing through the “maybe” location. The process of modeling farmstead boundaries in GIS produces an estimated farmstead footprint and area calculation for each time period based on the material recovered in cores and test excavations. To not imply an inappropriate level of accuracy to these estimates, all farmstead sizes are reported rounded to the nearest 100 m^2.

Isolated areas of farmstead deposits that are non-contiguous with the main farmstead extent but with 100 meters are given separate boundaries and added to the areal calculation of the main farmstead. Isolated farmstead deposits beyond 100 meters from the main farmstead are counted as separate activity areas (or as additional farmstead sites on the farm if they are extensive and include substantial midden deposits).

The estimations of farmstead extent presented in this survey report should be considered preliminary. Final estimations of farmstead extent will involve the careful review of all coring data and stratigraphic sequences to further refine the estimated farmstead extent.

Farmstead establishment date

The establishment date of a farmstead is the final critical metric for the settlement pattern study. The establishment dates were determined from tephra dates, sometimes in combination with AMS radiocarbon dates, obtained from carefully targeted excavations in the oldest part of a farmstead’s midden.

Household middens are ideal targets for obtaining the establishment date of a farmstead. Substantial concentrations of ash and bone are indicative of domestic occupation and their presence can distinguish farmsteads from isolated outbuildings and other non-domestic site types. The ash and other household garbage was not universally spread on fields, but often built up into a mound (e.g., Davidson, et al. 1986) and a small portion of the ash spread over living floors (Milek 2006). Middens were often concentrated adjacent to a side entrance or kitchen door (Buckland, et al. 1994; Snæsdóttir 1991; Vésteinsson 2010). In other regions, Viking Age middens frequently were dispersed like a sheet around the farmstead. In all of these midden formations, the ash tends to build up rapidly due to the tremendous volume of waste from the burning of peat, dung, and wood (Simpson, et al. 2003; Vésteinsson and Simpson 2004). Midden deposition seems to be relatively continuous and thus provides an excellent environment for the rapid burial and preservation of tephra layers. Middens can be sampled without unduly damaging the complex stratigraphic relationships in structures.

The estimations of farmstead establishment date presented in this survey report should be considered preliminary. Final estimations of farmstead establishment date may use more extensive radiocarbon samples and more exact tephra dates to further refine the estimated farmstead establishment period. In some cases, chemical analysis may redefine tephra layers entirely changing a farmsteads date range.

Survey results

The survey produces three main datasets related to the farmsteads in Hegranes: the identification of occupational areas on the farm, an estimating of changing farmstead size based on coring data, and an estimate of the earliest occupation at the farm based on test trenches strategically placed in the farmstead midden deposits to expose the oldest cultural deposits identified in the coring. Results from each farm are presented below.

Keflavík

The Keflavik farm has three known farmstead locations and a number of outlying small farms, cottages, or specialized production areas. The results from the outlying areas will be presented in a separate report. Keflavík first appears in the historical record in 1374 as a property belonging to the bishop's see at Hólar. In 1713 the farm was valued at 40 hundreds (Pálsson 2010). The results presented here include the investigation of a pre-1104 farmstead site located in the main hayfield (Zoëga and Sigurðarson 2009) and the medieval-early modern farmstead location, where the farmstead was located until 1979 when it was moved to its present location on the east side of the main farm fields. It was originally suspected that the pre-1104 and medieval-early modern farmsteads represented the relocation of the farmstead, as was seen at the farms of Stóra-Seyla and Glaumbær in Langholt (Bolender, et al. 2011). It now appears that these two locations were both occupied during the 10th century and may represent two contemporary farmsteads on the same farmland. Further work is required to resolve the chronological relationship between the two sites, which are less than 100 m apart and could be considered as a single entity.

A medieval cartulary dating to 1394 recounts that a priest was paid for his service at Keflavík (Diplomatarium Islandicum 1857-1972 III:530), an indication that there was an operating family chapel at the time. The existence of an early Christian cemetery at the site was confirmed in 2013 when the electricity company, RARIK, plowed down a high voltage mains line through the homefield of the Keflavík farm. It was the farmer, Þórey Jónsdóttir, who noticed and reported archaeological remains in a trench that had been dug to facilitate the connection of a low voltage line to the main high voltage line. Excavation of the cemetery began in conjunction with the SCASS survey in 2015.

Coring:

A total of 486 cores were taken at the Keflavík farm, including the area of the two known farmsteads, and outlying areas. Of the 486 cores, 195 had cultural deposits. Most of these were concentrated around the known farmstead locations and outlying areas but unsurprisingly there is evidence of scattered buried turf structures and anthropogenic inclusions throughout the farm homefield.

The large homefield at Keflavík was systematically cored, including the large visible farm mound, designated Upper Keflavík, where the early Christian cemetery currently being excavated is located (Zoëga et al 2015). The farmstead predates the Hekla A.D. 1104 tephra layer and extensive remains for that period extended beyond the raised farm mound. Compared to the farmstead areal extents measured during previous work in the Langholt area, the pre-1104 farmstead at Keflavík is moderately sized at 4100 m^2. This area increases slightly to 4700 m^2 during the 1104-1300 period but then drops in the post-1300 period to 2700 m^2 (figure 4).

In 2008 the farm and its satellite farmsteads were registered and a number of test trenches were excavated. A 10^{th}-11^{th} century farmstead was located in the homefield east of the medieval-early modern farm mound. This farm is designated Lower Keflavík. Occupational layers revealed in the test trenches were all under the Hekla A.D. 1104 tephra layer and no unequivocal evidence for a cemetery was found in association with this site (Zoëga and Sigurðarson 2009). In the summer of 2012, extensive geophysical survey was conducted in the homefield. Again, there was no clear evidence of a cemetery (Bolender, et al. 2015).

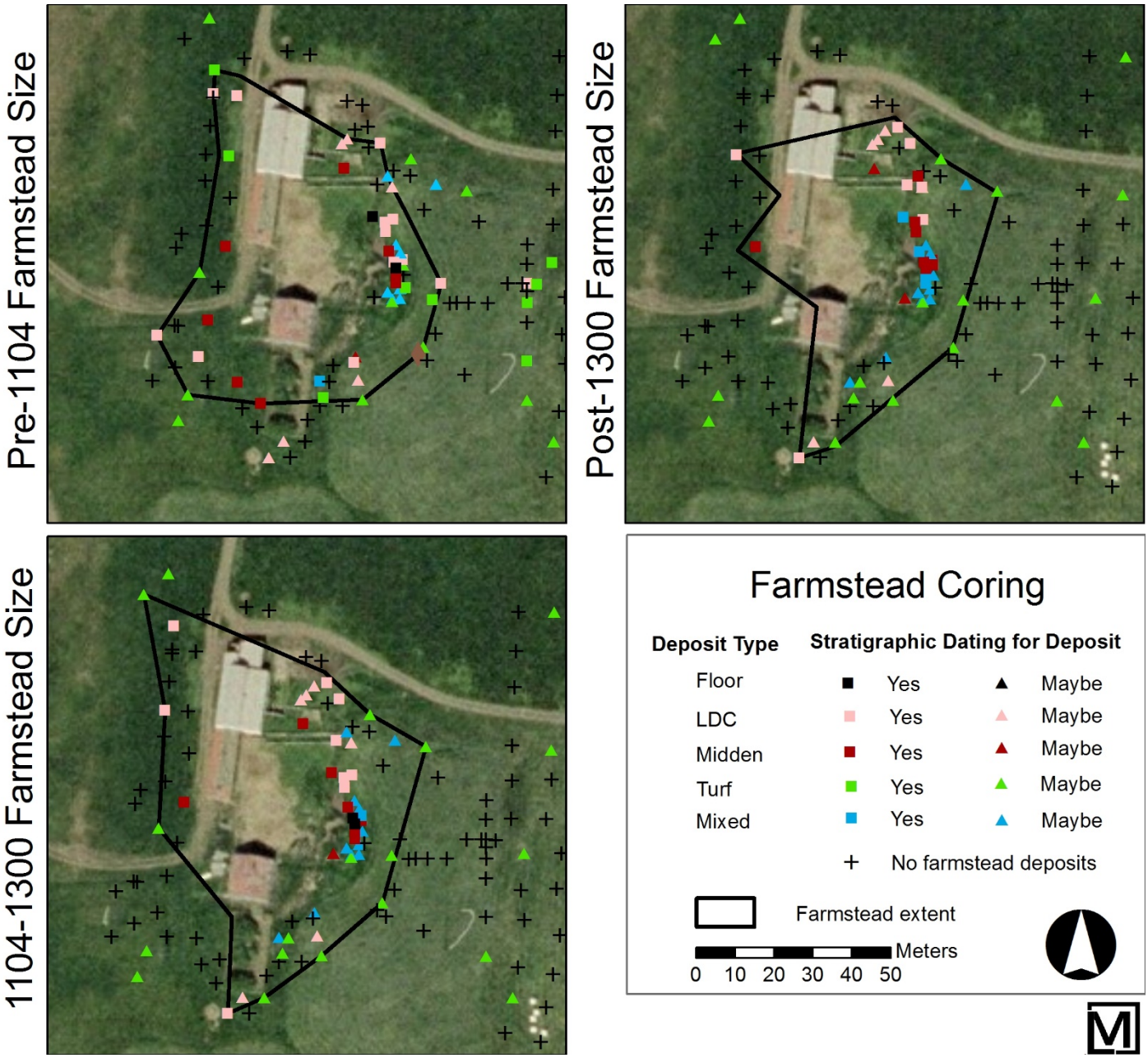


Figure 4. Keflavík upper farmstead coring.

When the cemetery was finally located it was situated at the eastern edge of the visible modern farm mound and just 20m west of a still visible homefield boundary.

At Lower Keflavík, the coring showed a relatively small extent of farmstead material for the pre-1104 phase measuring to 2600 m^2, including a midden, turf, and a spread of low density cultural material (figure 5). The extent of the farmstead deposits as recovered in the coring is largely consistent with the farmstead layers in the 2008 test trenches. Coring revealed an extensive spread of low density cultural material to the east of the midden and main farmstead turf structures. There is also a concentration of turf and midden south of the visible homefield boundary wall associated with the pre-1104 farmstead. Unfortunately, the stratigraphic control over these deposits is limited, although it appears that there was a least some remains dating to all of the phases: pre-1104, 1104-1300, and post-1300. The spread of ´farmstead´ deposits is relatively restricted, less than 1000 m^2.

The test trenches excavated in 2008 at Keflavík indicate that the lower farmstead site was abandoned before

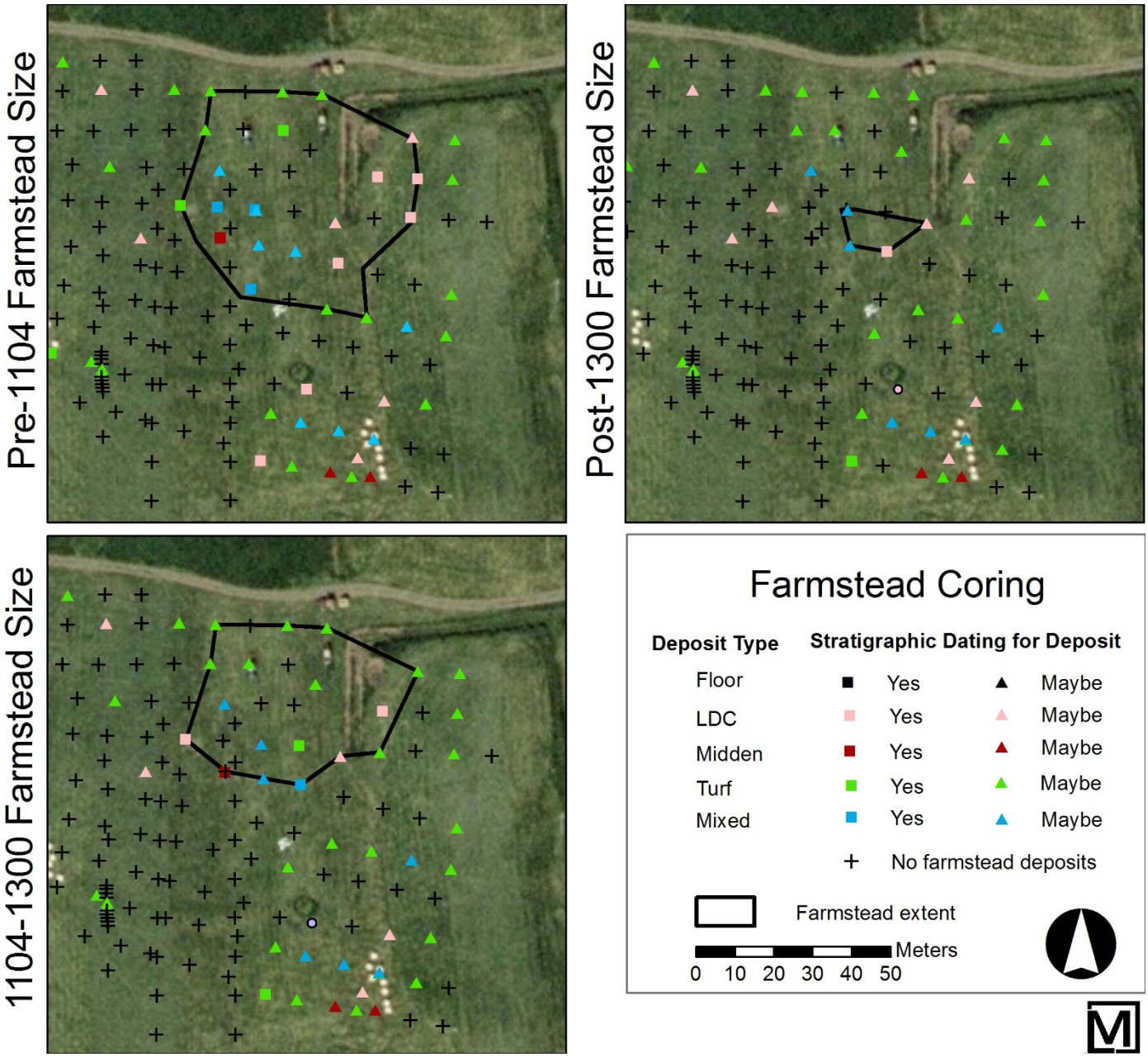


Figure 5. Keflavík lower farmstead coring.

the Hekla A.D. 1104 tephra. Coring shows that turf and low density cultural deposits continued to accumulate on the site after 1104. One core positively identified a midden deposit for the 1104-1300 period. The total area of farmstead deposits in the 1104-1300 period was 1700 m^2. The area of cultural activity probably drops to only 100 m^2 after 1300. Given the evidence from the test trenches it seems likely that the lower Keflavík farmstead location was abandoned before A.D. 1104 but that it remained a locus of some farm activity or possibly that a small farmstead, cottage or other domestic building remained on the site.

Test excavations:

The three test pits excavated on the eastern edge of the upper Keflavík farm mound all exhibited the same basic sequence, with about 75% of the deposits above the 1300 tephra layer. Most of the deposits were composed of what appeared to be various types of ash. Some of the ash deposits were laminated, while most others appeared to be without depositional structure. The steepest and deepest parts of the mound would appear to be primarily 20th century material.

Test pits 1 and 2 were excavated into the mound in advance of mechanical clearing for the cemetery excavation (figure 6). Both of these test pits suggested that there was little structure and minimal pre 1300 deposits at the eastern edge of the farm mound. Both test pits' sidewalls were mostly removed as part of mechanical clearing. Neither of these test pits were excavated all the way down to sterile. Neither of these test pits had flotation samples taken. In both cases, the west walls remain as a context for potential excavations into any structural deposits adjacent to the cemetery.

Test pit 1 established an initial depth and context for the 1104 tephra layer in the eastern edge of the farm mound at about 170 cm (figure 7). The deposits, below the disturbed ground surface were almost all ash, except for one small deposit of burnt turf [113], which is probably in a secondary context. No structural remains were identified. The deposits were unconsolidated. The excavation was terminated below [114] at the AD 1104 tephra.

Test pit 2 presented some poorly preserved structural deposits in the western end of the excavation. At the same time, the sequence also exhibits substantial 20th century disturbance. Context 104, a pit in the western end that cut through most of the sequence, has a substantial amount of rubber, plastic, and other 20th century material. Context 108, in the western end of the excavation, may be a poorly preserved turf wall that contains the Hekla 1104 tephra in some of the turf wall material. Context 109 appears to be a well-preserved ash deposit under the probable [108] wall. No Hekla 1300 tephra was identified in the sequence, therefore most of the dating is rather broad. The excavation was terminated at [110] because the deposit was a potential floor. Context 110, only appeared in the western 15 cm of the excavation and the deposit was not excavated.

Test Pit 3 is the only test pit excavation that was taken down to sterile soil (figure 8). It was excavated after mechanical clearing to get a better Viking Age context for dating, particularly a farmstead establishment date.

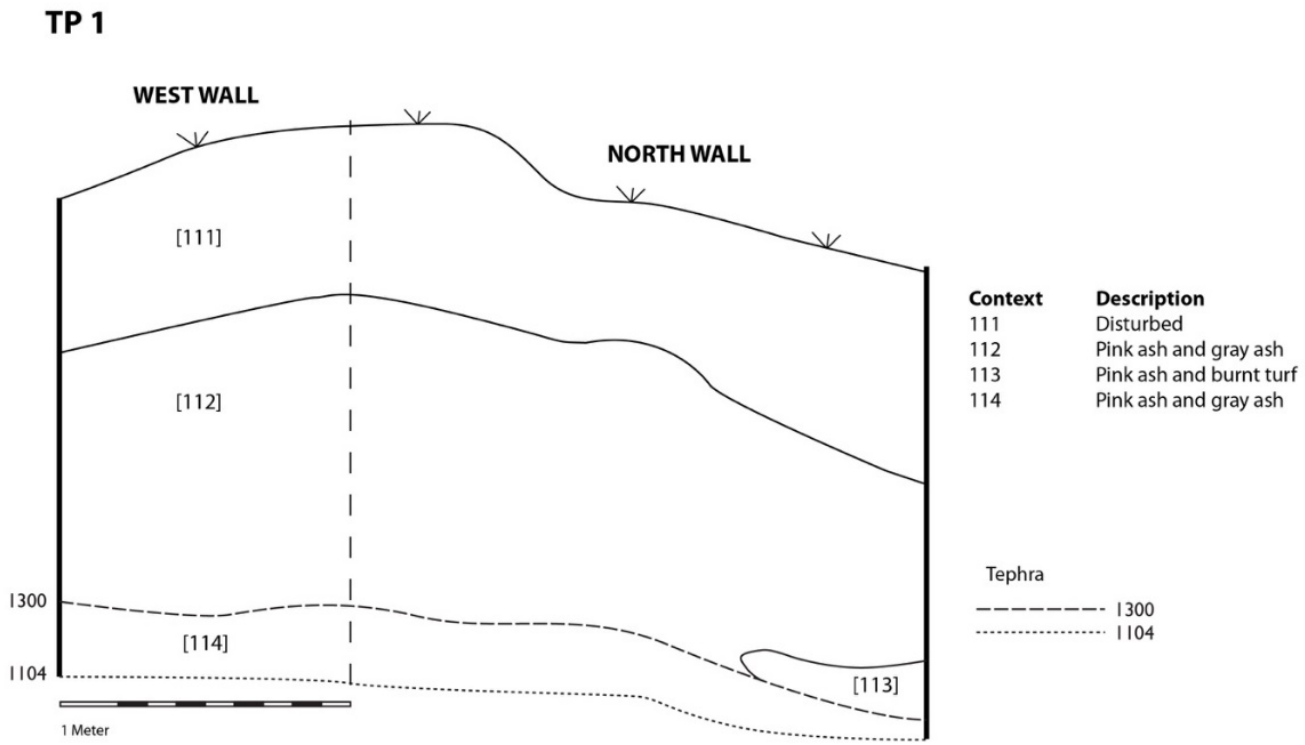


Figure 7. Keflavík, test pit 1 profile.

It was placed based on a coring program to identify the earliest ash midden deposits that were accessible with a 2.5m deep test pit. No structural deposits were encountered. The sidewalls of TP3 are still intact. Test pit 3 had flotation samples taken below the 1104 tephra layer as well as a complete tephra sampling regime. The first black tephra between [117] and [118] has been provisionally identified as the AD 1766. The second black tephra identified in test pit 3, between [118] and [119] also appeared in several places along the margin of the mechanically cleared area. Based on the depositional sequence it is assumed that both of these tephras are from the early part of the second half of the second millennium and that the upper one is the 1766 tephra. A tephra typical of the AD 1300 was encountered between [120] and [121] and is so labeled. Context 121 had a white very patchy tephra in it, but the context clearly bottomed out on thick distinct 1104 tephra. Immediately below the H1 tephra, context 122 was a very distinct laminated deposit. Only one tephra layer was present between the 1104 and the H3/H4. It is unclear if the bottom tephra is the 1000 or a potentially earlier tephra from ~950. Both the 1000 and the ~950 appear in profile sequences in other portions of the cleared area but unfortunately, not in this test pit. There is potentially material below the second (~950) tephra in other parts of the mechanically cleared area. The bottom dark tephra has been tentatively labeled the 1000. Thus, while test pit 3 clearly yielded a pre-1000 establishment date as both [123] and [124] contain clear signs of cultural activity, the mound has clear evidence of a pre~950 activity. Three was no landnám tephra sequence in test pit 3.

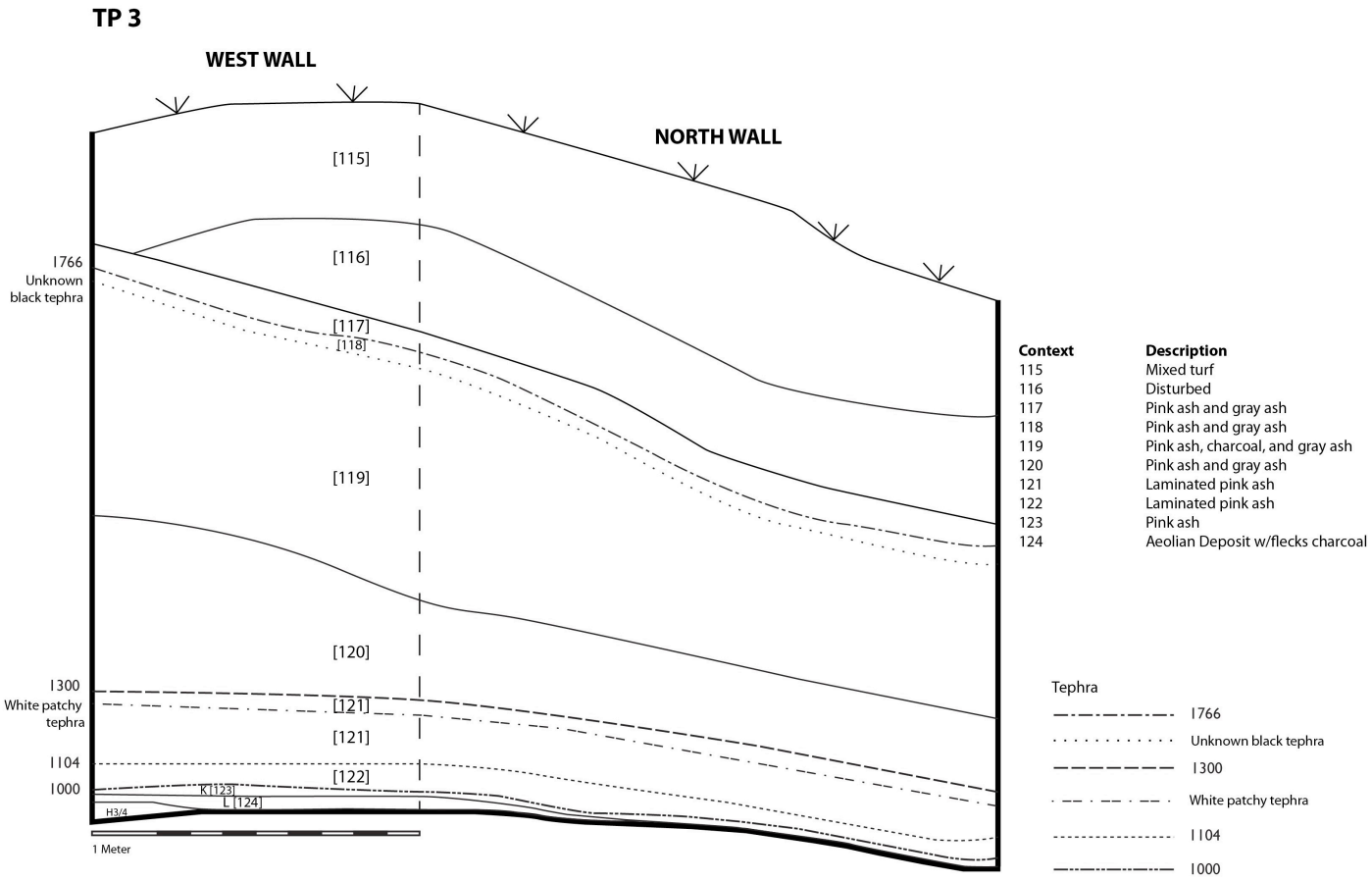


Figure 8. Keflavík, test pit 3 profile.

Garður

Like the neighboring farm of Keflavík, Garður first enters the historical record in A.D. 1374 as a property belonging to the bishop's see at Hólar. In 1713 the farm was valued at 20 hundreds (Pálsson 2010:38). Coring suggests that the primary domestic occupation at the farm is in roughly the same location as the contemporary farmhouse; however, the coring and farm establishment data suggest that there may have been an earlier domestic occupation located at some distance from the contemporary farmstead, perhaps at the nearby Hegranesþing also the later site of an abandoned farmstead called Litli-Garður (Pálsson 2010:45). There is no record of a church associated with the current farmstead at Garður but the recovery of bones from Christian graves at Hegranesþing/Litli-Garður reinforces the notion that there may have been an early relationship between the two locations (Zoëga 2009).

Coring:

A total of 155 cores were taken at the Garður farm. These were primarily concentrated in the area of the contemporary farmstead, which has a long history of occupation (figure 9). Of the 155 cores, 45 had distinct cultural deposits. The locational pattern from these dated deposits suggests that the farmstead at Garður underwent the most dramatic change in extent of any of the farmsteads surveyed in 2015. The pre-1104 farmstead was moderately sized at 4500 m^2. It then ballooned to 11,400 m^2 in the 1104-1300 period and dropped moderately to 8200 m^2 in the post-1300 period. This could represent a dramatic change in the size of the farmstead after A.D. 1104 but, given the common pattern of relocations, it is more likely that it represents the relocation of an existing farmstead to the current farmstead site at Garður sometime shortly before A.D. 1104. This pattern was also seen in Langholt, where the two farms that relocated in the late

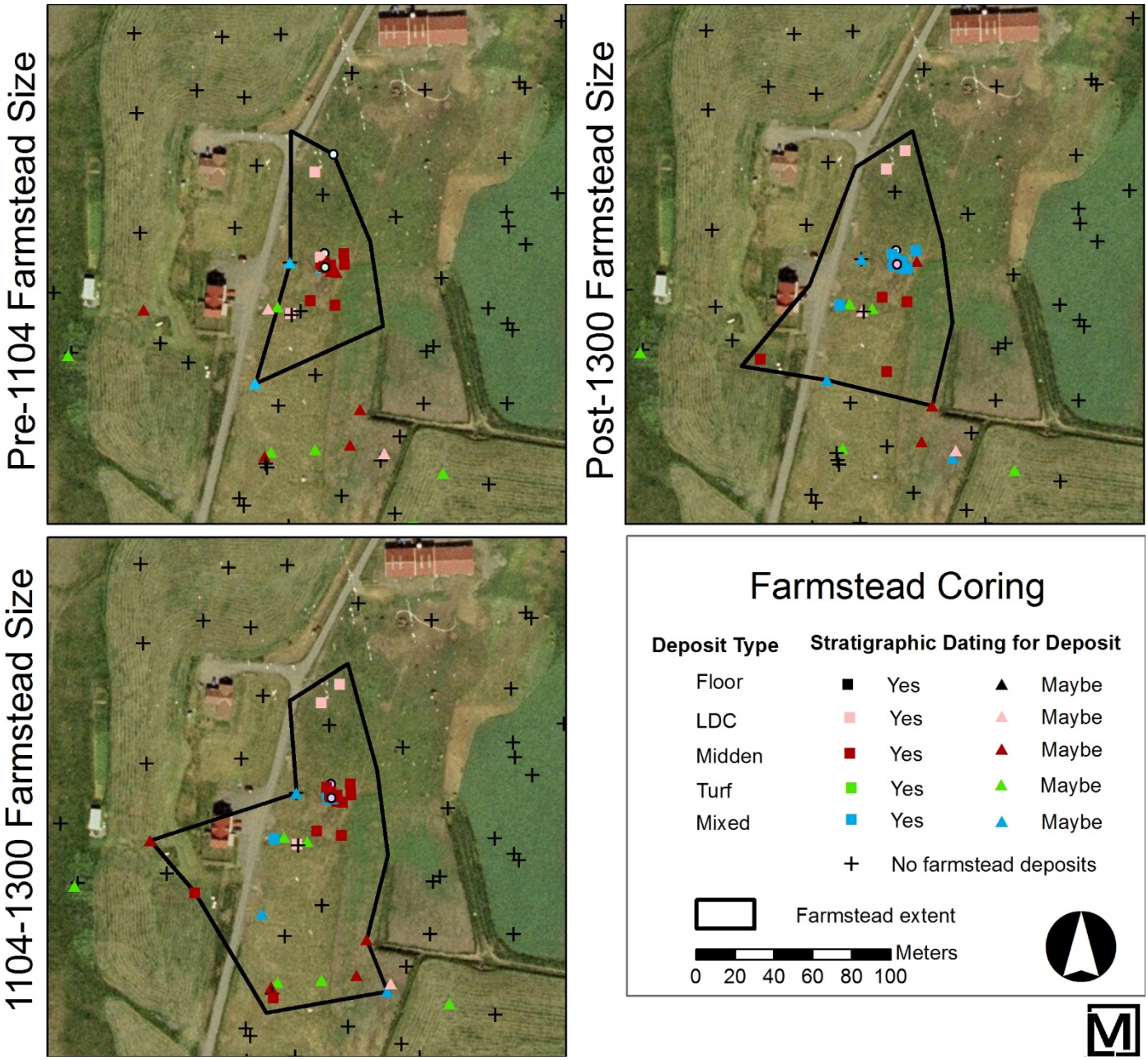
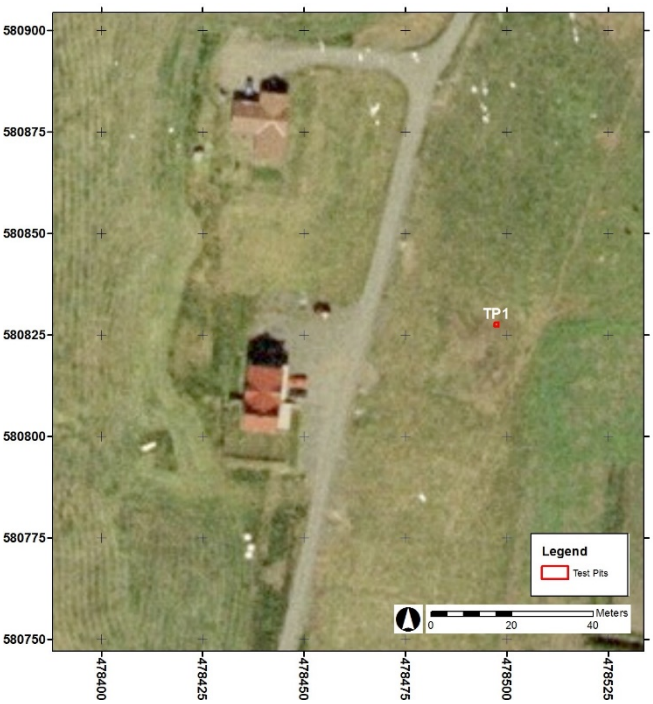


Figure 9. Garður farmstead coring.

11th century had restricted farmstead extents at their briefly occupied new farmstead locations.

Test excavations:

Based on the extensive coring, a test pit (TP1) was placed with its southwest corner at E 478497.031 N 580827.015 with an elevation of 30.22 m above sea level (figure 10). This area had the highest concentration of cores with midden clearly below the 1104 tephra. The area had some turf structures that were bulldozed, but there was no indication from the current farmers that the modern farm's ash midden pile was in this location. The first 40 cm of the test pit (TP1) were disturbed [101 & 102] and consistent with the bulldozing in the area that the farmer described to us. Below the bulldozing event there was a well-defined gray-pink low density midden [103] that was both above and below the distinct 1766 tephra layer (figure 11). Below the 1766, the sequence was difficult to determine because parts of the 1300 had been displaced by later thufur formation. Context [105] mostly bottoms out on the 1300 tephra, except in the east, where it interfaces with the 1104 tephra. Three



different contexts bottom out on a boggy LNS: [106, 107, & 108]. Context [107] was directly below the 1300 tephra, [106] was below the 1104, and [108] was below the 1000. Context [108] was nested in a small depression, probably formed by a thufur (visible in the east wall profile), and is potentially the oldest cultural deposit in the sequence. However, at this time, it is unclear if [108] is a cultural layer or is sterile. There does not appear to be much peat ash in the [108] deposit, and no charcoal was noted. The analysis of flotation samples is still ongoing and will help to make a determination if [108] is cultural. At this time, we believe the earliest cultural deposit is [106] which yields an establishment date between AD 1000 and 1104.

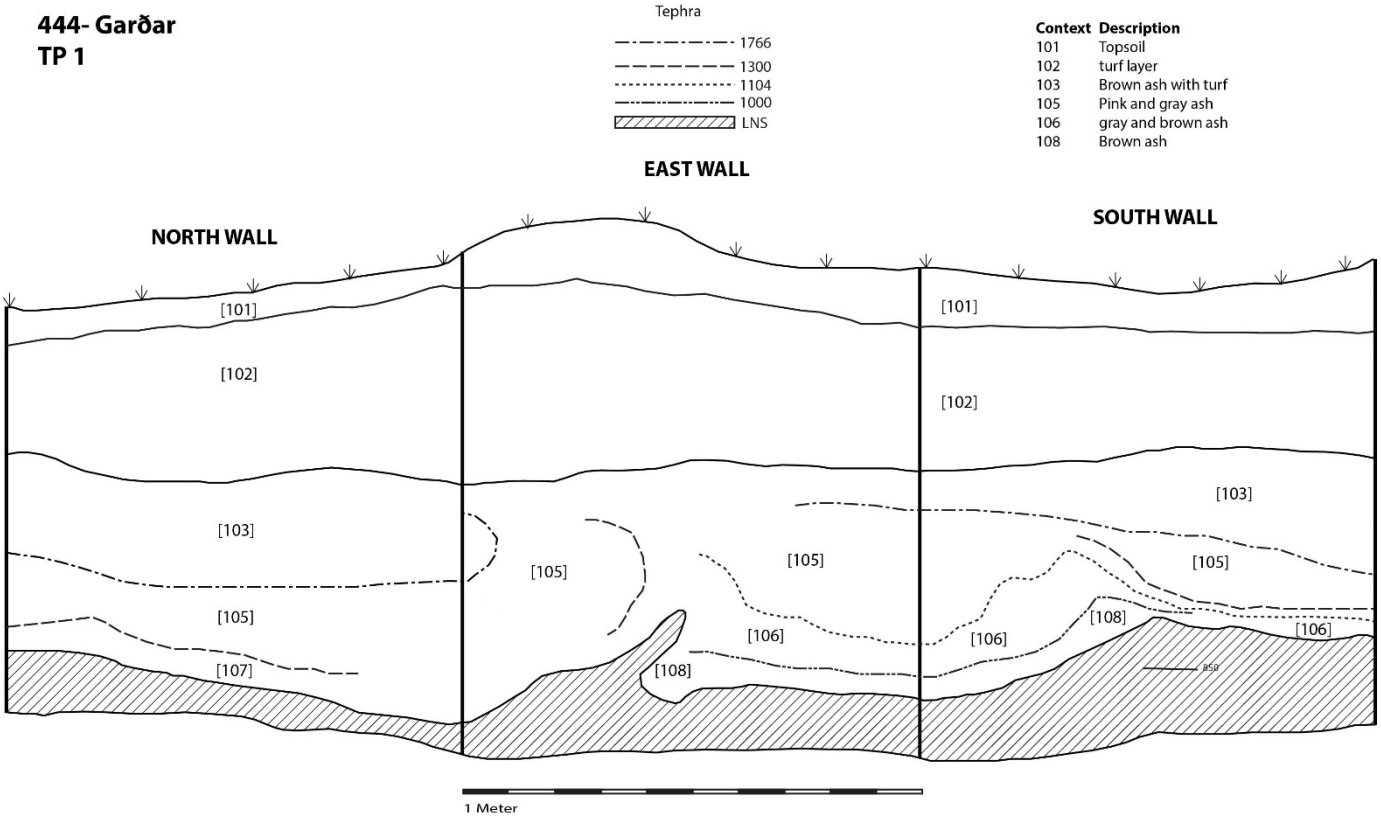


Figure 10. Garður test pit locations.

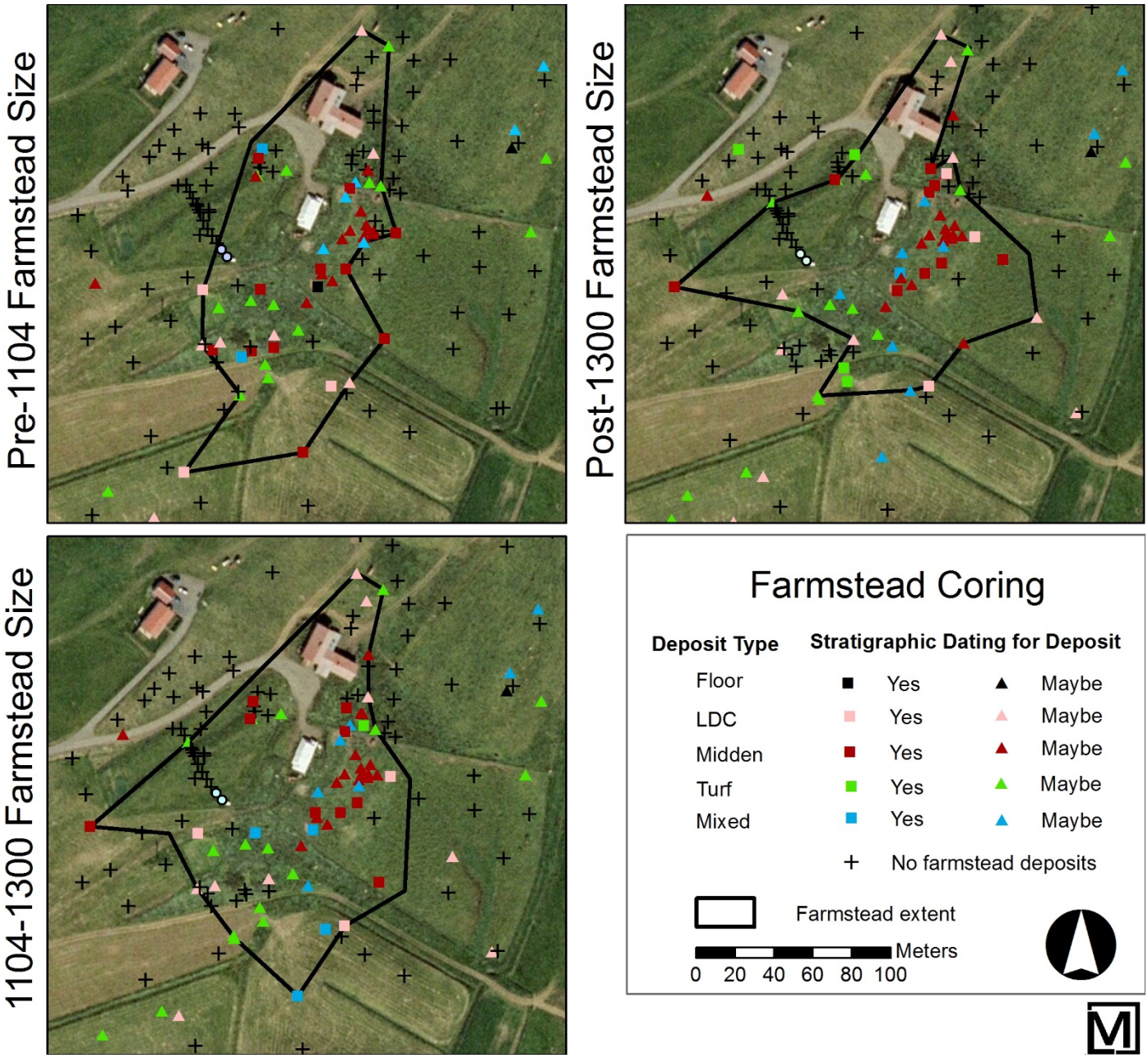


Figure 12. Ás farmstead coring.

Ás

Ás is one of the largest farms on Hegranes and is considered the primary settlement farm in the area and is, according to local folklore, thought to contain the site of Hávarður the Heron's settlement on Hegranes. His original farm was, reportedly, at so-called Hegrastaðir before it was moved to the current farmstead location of the south side of the low mound from which the farm derives its name (Pálsson 2010). Survey at Hegrastaðir did not reveal any evidence suggestive of a sustained early domestic occupation at the site. The farm was one of the principal estates belonging to the Ásbirningar family, which dominated Skagafjörður in the 12th and 13th centuries. By A.D. 1388 it had passed into the control of the bishop's see at Hólar. In 1713 it was valued, along with the subfarm at Vatnskot, at 60 hundreds (Pálsson 2010). In 1480 the farm had a church and cemetery the ruins of which were still visible in 1713 (Sigurðardóttir 2012). Ás also had the first timberhouse in Skagafjörður built in 1862-1865 (Pálsson 2010). The contemporary dwellings are no longer at the old farm mound with the house at Ás I

situated about 100 meters to the northwest and Ás II about 200 meters to the west.

Coring:

A total of 579 cores were taken at the Ás farm, including the visible medieval-early modern farmstead location and three additional outlying farm areas: Túnfótur, Hegrastaðir, and Minna-Ás. Of the 579 cores, 184 had cultural deposits. Most of these were concentrated at the visible farmstead location (figure 12). The farmstead at Ás measured 14,200 m^2 in the pre-1104 period, the largest among the farmsteads surveyed by the project so far. Ás grew to 16,900 m^2 in the 1104-1300 period and then declined slightly post-1300 to 13,900 m^2. The spread of cultural deposits at Ás was surprisingly extensive with both turf and midden deposits recovered in the field well below the current farm mound area.

Test excavations:

Test pits 1 and 3 were both placed on the basis of coring results (figure 13). While the area around TP1 did not present tephra layers below the 1104 tephra layer, the depth of the midden was substantial. For the area around TP3, while the cores did not suggest a particularly deep cultural deposit below the 1104 tephra layers, there was a clear midden layer that extended at least 5 cm below the 1000 tephra layer.

Test pit 1 was placed in a midden on the southwest side of the substantial architectural remains still visible (figure 14). The test pit had its southwest corner at E 479777.5, N 577667.2 with an elevation of 24.73 ASL. While the deposits slope away to the east, the sequence is relatively straightforward. Context [106] was a particularly complex and dense midden deposit in an otherwise linear and sequential stratigraphic sequence. The only context that did not run throughout the entire test pit was [108] and its truncation, seen in the north wall profile, seemed to be related to the truncation of the 1300 tephra layer (figure 15). The 1104 tephra layer, on the other hand, was consistent throughout the area of the test pit and was

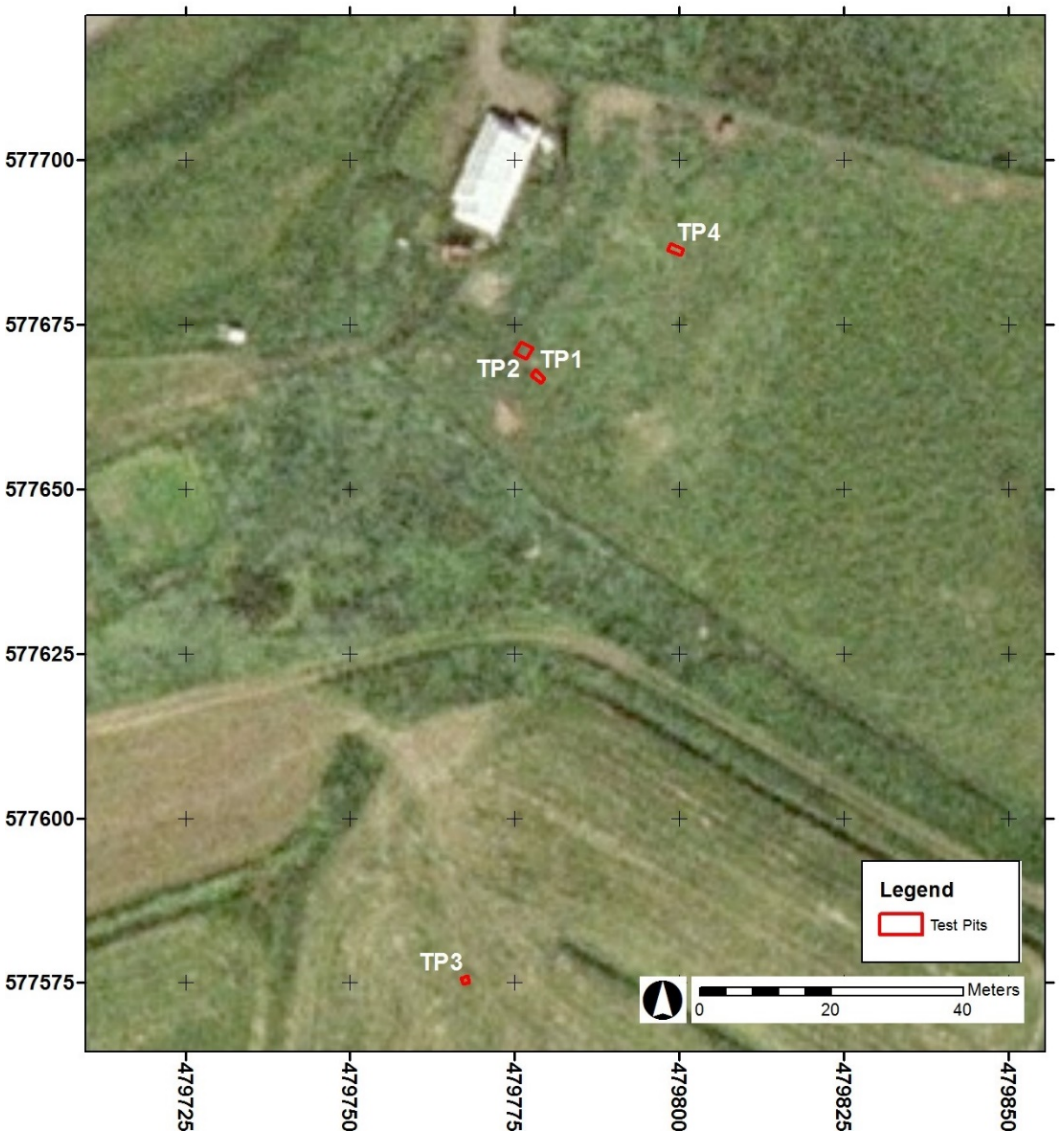


Figure 13. Ás test pit locations.

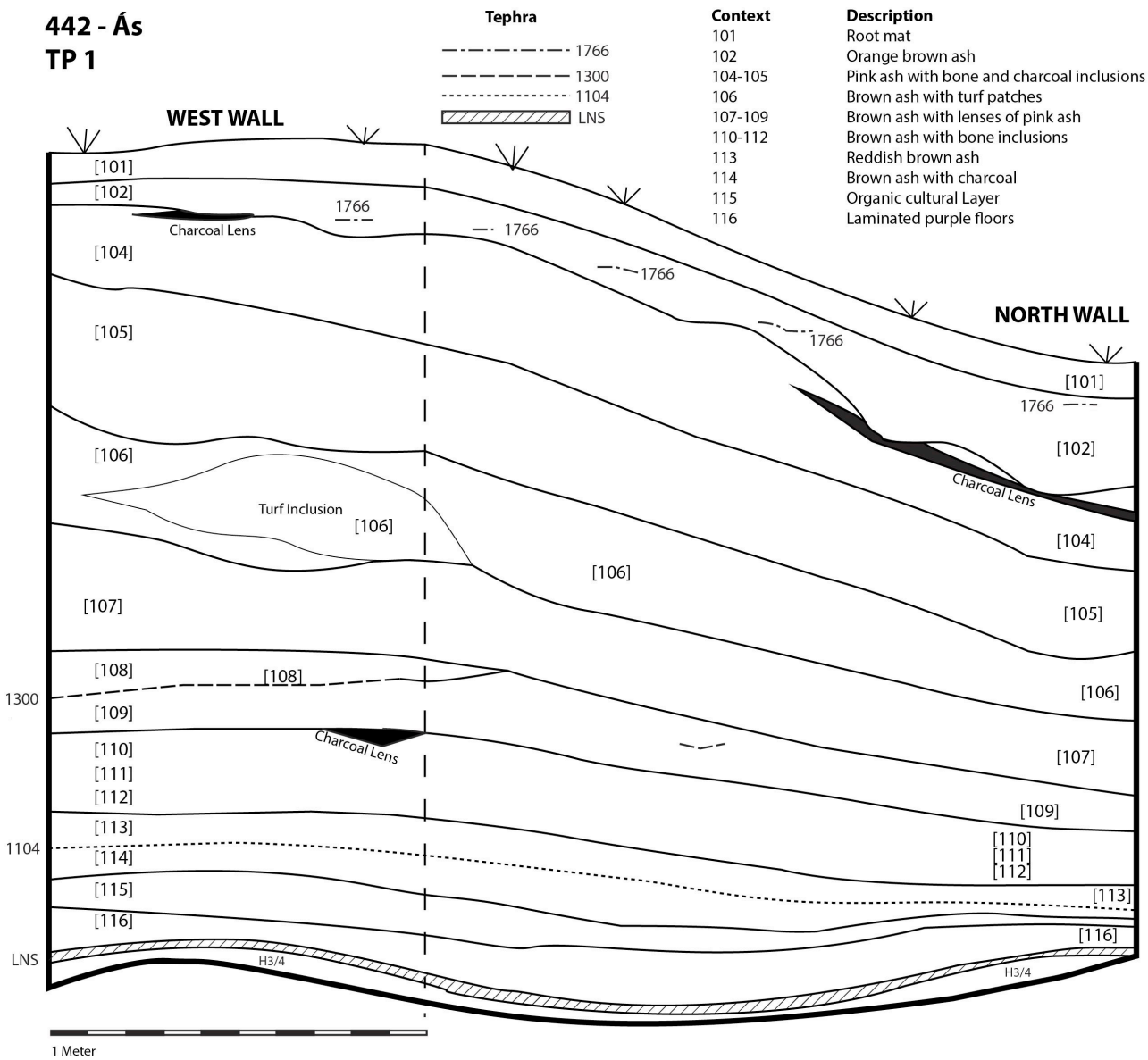


Figure 15. Ás test pit 1 profile.

Figure 14. Ás test pit, north wall.

bracketed by contexts [113] and [114]. The bottom two cultural deposits were [115] and [116] and these could be floor deposits. Context [116] was clearly the oldest deposit, and potentially a floor that was directly on the LNS. In TP1, the LNS was directly on the H3 tephra layer. Context [116] is probably a very early deposit that indicates an establishment date that is just post LNS.

Test pit 3 was located at E 479767.183, N 577574.808 at 19.443 ASL. In general, the deposit consisted of turf and ash probably deposited into an area where peat was cut (figure 16). The cutting and deposition make the sequence a little confusing and unclear. The top three contexts [101, 102, & 103] were all disturbed. Contexts [101] and [102] were probably disturbed by

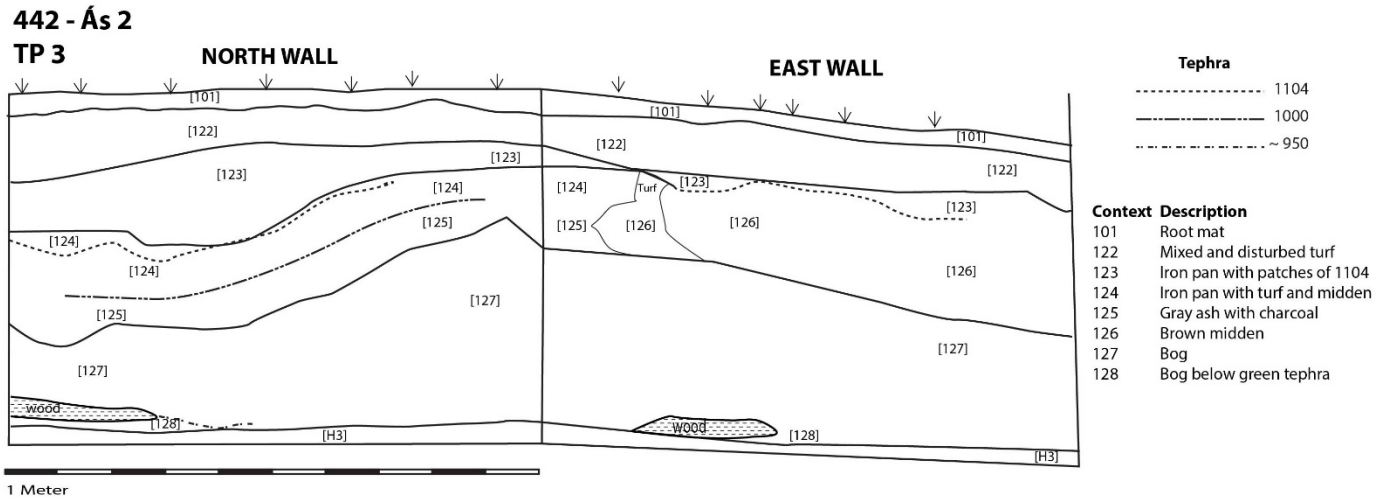


Figure 16. Ás test pit 3 profile.

more recent field flattening activities. Context [103] was disturbed by an iron pan, which did not extend over the entire test pit. While [103] was disturbed by the post depositional iron pan formation, the deposit itself seemed to be in situ. Likewise, [104, 105 & 107] all seemed to be in situ midden deposits. Contexts [104] and [105] both contained a very uneven 1104 deposit. The 1104 deposit was so uneven it could not be excavated as a single layer and is contained in the upper parts of these two contexts (figure 17). However, at about the same level, context [106] did not seem to be in place, but it is difficult to ascertain the exact nature of the disturbance responsible for this deposit. While the 1104 tephra was quite uneven, the 1000 tephra presented as a single layer, even if it was not present over the entire test pit. Midden contexts [107] was entirely above the 1000 layer, while the lower peat ash midden context [108] was completely under the 1000 tephra layer. Context [108] appears to fill in a cut bog [109], that contained several pieces of wood as well as a green tephra that is probably the (~950, but could also be a LNL. The bog cutting and earliest midden deposits suggest that Ás occupied a substantial area even before the 1000 tephra layer fell, and most likely after the mid-10th century tephra layer fell. In combination, the test pits suggest an early establishment date for the farmstead at Ás, well before 1000 AD and probably very soon after the LNL fell.

Figure 17. Ás test pit 3, facing north.

Keldudalur

Keldudalur first enters the historical record in A.D. 1295 as a property belonging to the bishop's see at Hólar being donated to the cloister at Reynistaður in A.D. 1295. In 1713 the farm was valued at 24 hundreds (Pálsson 2010). Coring suggests that the primary domestic occupation at the farm is in roughly the same location as the contemporary farmhouse. There was no record of a church associated with the farm until an early Christian cemetery was discovered on the site in 2002 during the construction of a new guesthouse (Zoëga 2015).

Coring:

A total of 258 cores were taken at the Keldudalur farm (figure 18). These cores were concentrated in the area of the contemporary farmstead and an outlying charcoal and possibly iron production area called Járngerðarhóll. Of the 258 cores, 119 had cultural deposits. Most of these were concentrated at the known farmstead location. Keldudalur appears to have the most consistent farmstead extent in the survey so

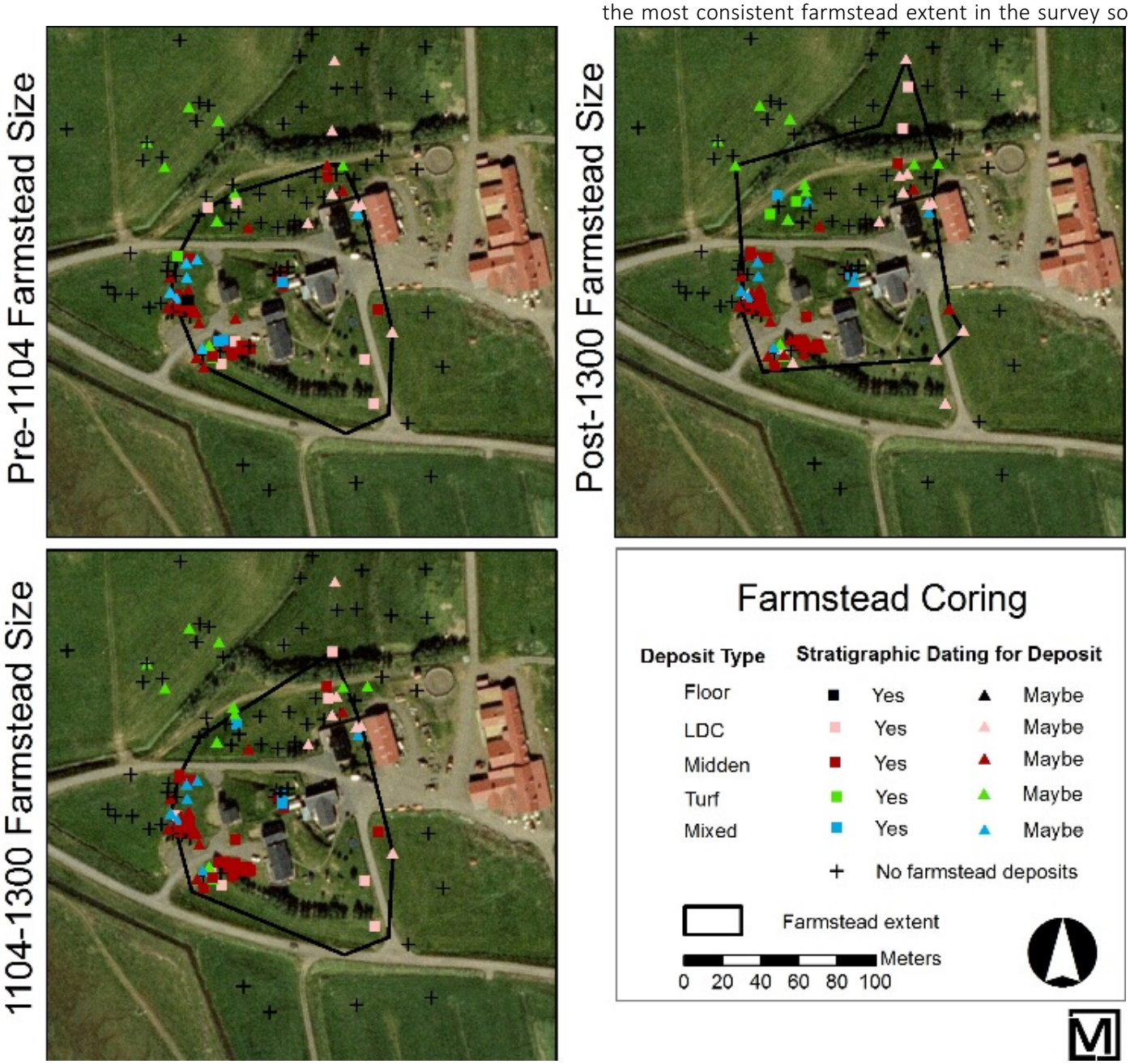


Figure 18. Keldudalur farmstead coring.

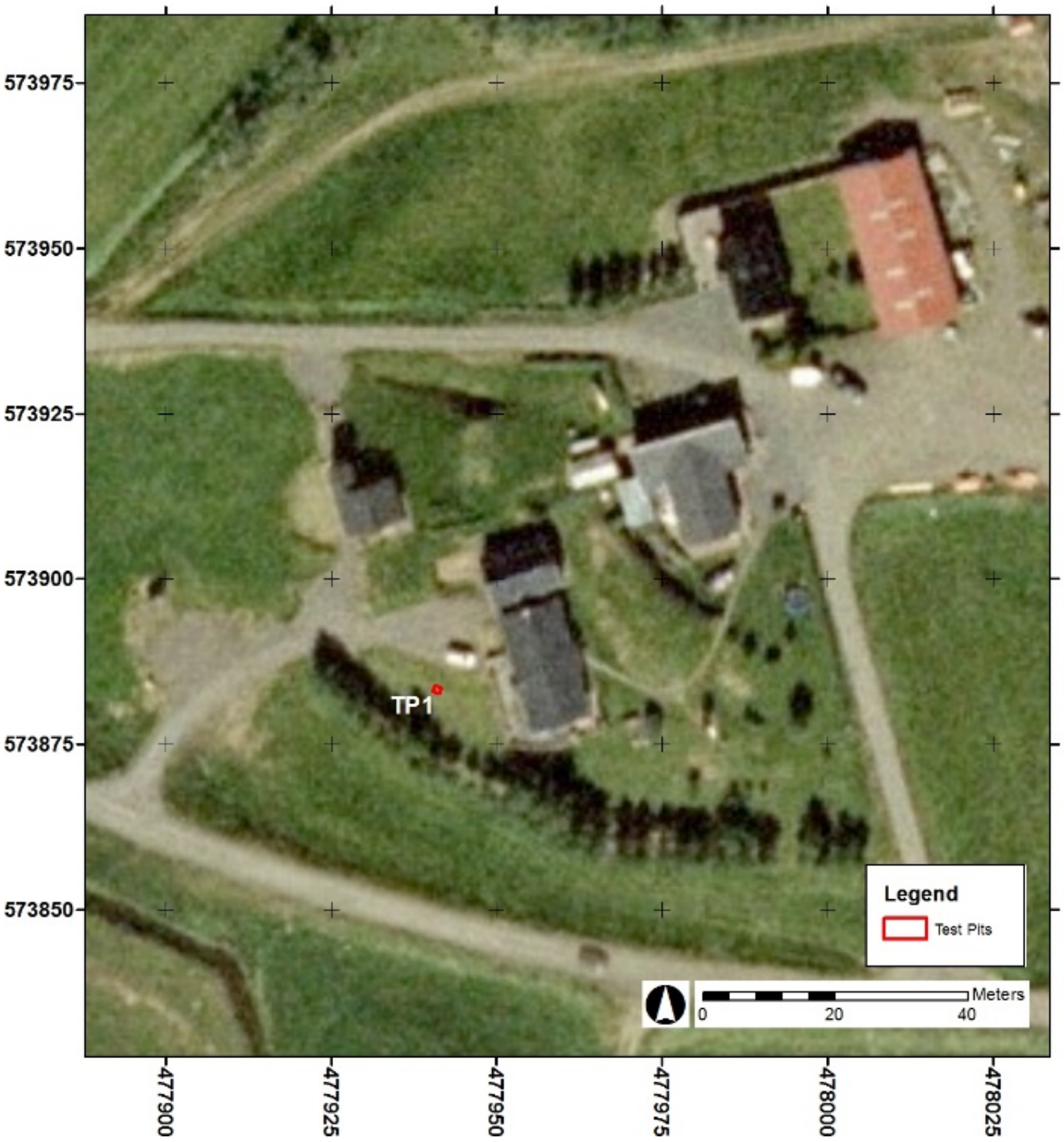


Figure 19. Keldudalur test pit locations.

far. The pre-1104 farmstead measured a substantial 11,500 m^2, second only to Ás. It then grew modestly to 12,400 m^2 in the 1104-1300 period and remained largely unchanged in location or size in the post-1300 period, measuring 12,300 m^2.

Test excavations:

At Keldudalur, the first test pit (TP1) was placed with its southwest corner at E 477940.300, N 573883.1, with an elevation at 8.167 ASL (figure 19). It was placed based on the cores, specifically cores that presented with a black tephra between the LNS and the 1104. The test

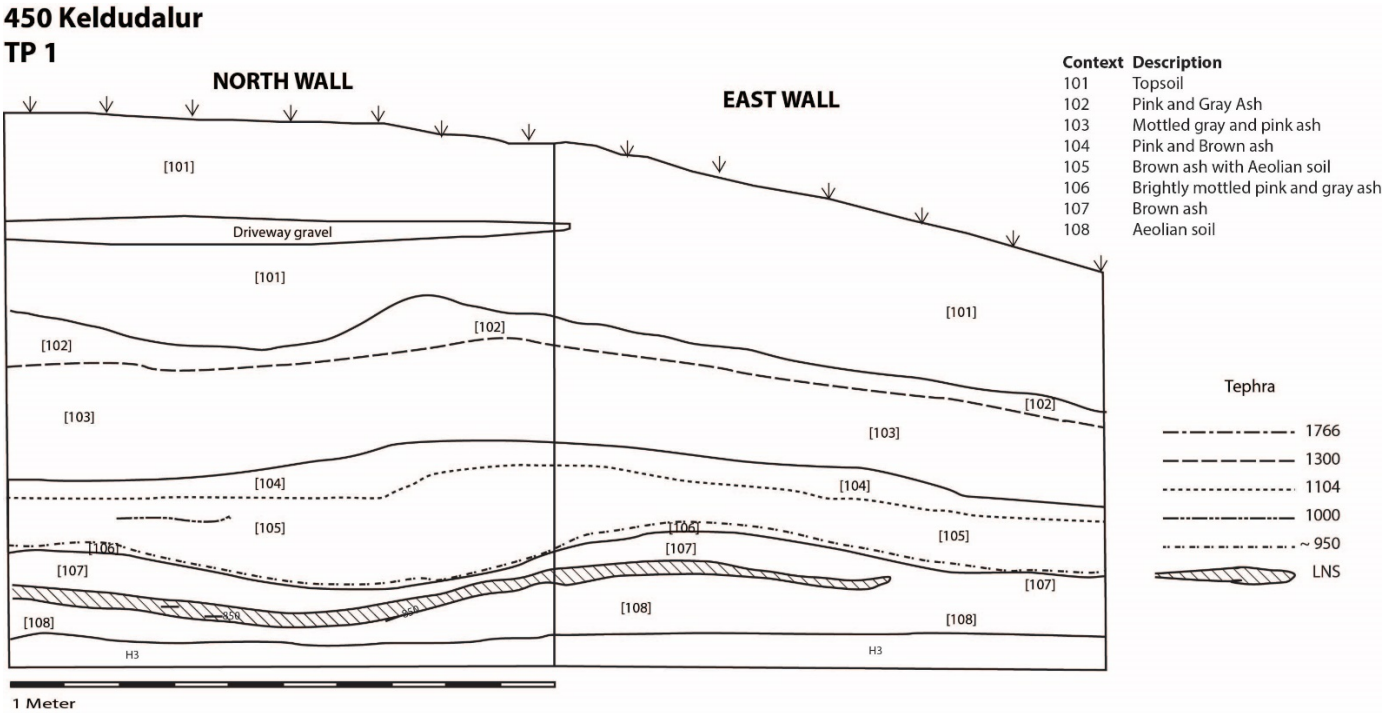


Figure 20. Keldudalur test pit 1 profile.

pit presented a straightforward sequence (figure 20). Context [101] was a deep and disturbed context with a distinct modern driveway gravel deposit. No 1766 tephra was identified in this context, although it was expected. The in situ deposit sequence started out with a low density cultural deposit above the 1300 [102] and below the 1300 tephra [103]. Likewise, the robust midden deposit was divided into above [104] and below [105] the 1104 deposit (figure 21). Context [105] also contained the 1000 tephra, but the tephra layer was so ephemeral that the context was not divided by the tephra. Context [105] bottomed out on a very clear mid-10th century tephra layer. Immediately below the mid-10th century tephra layer, the character of the midden changed and a thin, distinct layer of heavily mottled midden [106], which looked a little like confetti. Below this bright layer, the midden turned into a cultural layer with a very low density of charcoal inclusions [107] relative to the deposits above. Further analysis of the floatation samples may reveal this layer to be sterile, but it appears more likely to contain cultural material. Either way, [107] bottoms out on a distinct LNS, which covers most of the excavated area. Below the LNS is a distinct aeolian deposit [108] that rests on an H3. In the end, the two lowest cultural layers suggest a pre-mid-10th century date, but not immediately after the LNS, as there is a distinct aeolian deposit above the LNS.

Figure 21. Keldudalur test pit north wall.

Hróarsdalur

Hróarsdalur is located on the southwest side of Hegranes about a kilometer northwest of Keldudalur. The contemporary farmstead is located quite close to Héraðsvötn and the associated wetlands. One of the aims of the settlement survey is assessing the impact of changing river flows and wetland formation on farms, especially those located on the west side of Hegranes. Local legend describes how Hróarsdalur may have been established by one of the brothers of Hárvarður the Heron but its first documentation is from A.D. 1295 when it was bequeathed to the cloister at Reynistaður. In 1713 it was valued at 20 hundreds (Pálsson 2010). Coring suggests that the primary domestic occupation at the farm is in roughly the same location as the contemporary farmhouse. Hróarsdalur is one of the farms in Hegranes with no textual evidence of an early Christian church or cemetery and, to date, the survey has not produced any evidence for either, but more research is necessary to rule the possibility since the neighboring farm at Keldudalur also had no evidence of a cemetery before one was discovered in 2002.

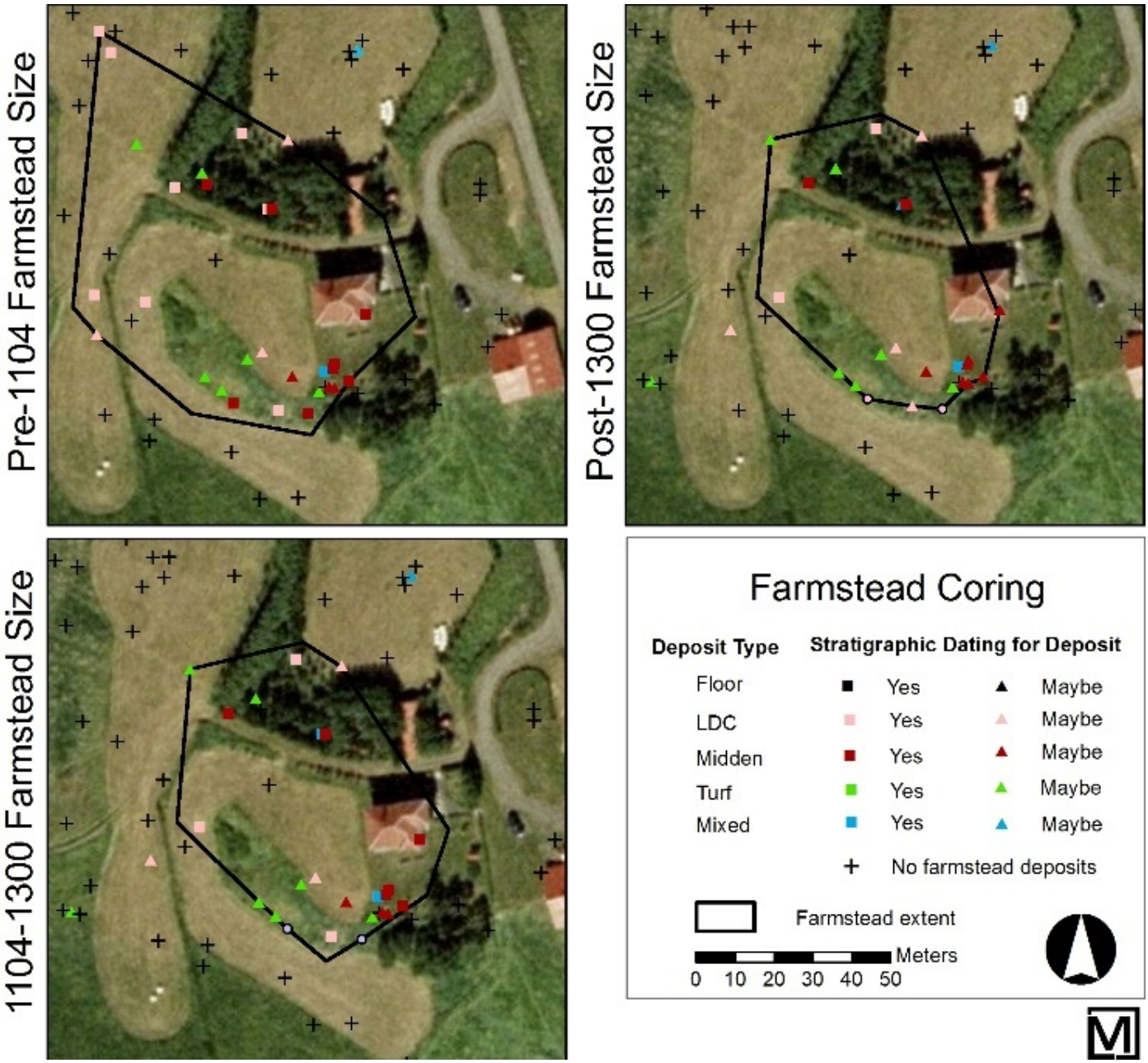


Figure 22. Hróarsdalur farmstead coring.

Coring:

A total of 104 cores were taken at the Hróarsdalur farm (figure 22). Most of these were concentrated around the visible farm mound. Hróarsdalur declines in areal extent from the pre-1104 to post-1104 period. The pre-1104 farmstead measured 5300 m^2, larger than either of the pre-1104 farmsteads at Keflavík or at Garður. It then declined in size to 3400 m^2 in the 1104-1300 phase and again to only 3000 m^2 in the post-1300 period. The reason behind the changes is currently unclear although Hróarsdalur is located very close Héraðsvatn and it is possible that the past movement of the river may have impacted the productive farmland available to the farm at some time in the past.

Test excavation:

At Hróarsdalur, the test pit (TP1) was placed based on cores, and in their presentation of tephras in midden below the 1104 layer. The test pit was placed at E 477255, N 574688 and an elevation of 15.512 ASL at its southwest corner (figure 23). The test pit sequence was straightforward (figure 24). No 1300 tephra was encountered at Hróarsdalur, probably because of landscaping activities that may have destroyed this tephra layer and associated deposits which is suggested by the fact that the first two contexts [101 & 102] were both disturbed deposits (figure 25). The test pit presented substantial and dense midden deposits above the 1104 tephra layer [103, 104, & 105]. The 1104 tephra was very thick in some places, while non-existent in others, nonetheless, a distinct break could be identified and [106 & 107] are both below the 1104 and above the 1000 tephra. Contexts [108 & 109] are between the 1000 and the mid-10th century tephras. While [109] is a very dense midden, [110] is far less dense, yet more than likely, contains cultural remains. Context [110] is clearly the oldest context, lying between the LNS and the mid-10th century tephra layers. Immediately below the LNS is the H3 tephra layer. While analysis of floatation samples are still ongoing, this initial sequence suggests an establishment date between the LNS and the mid-10th century.

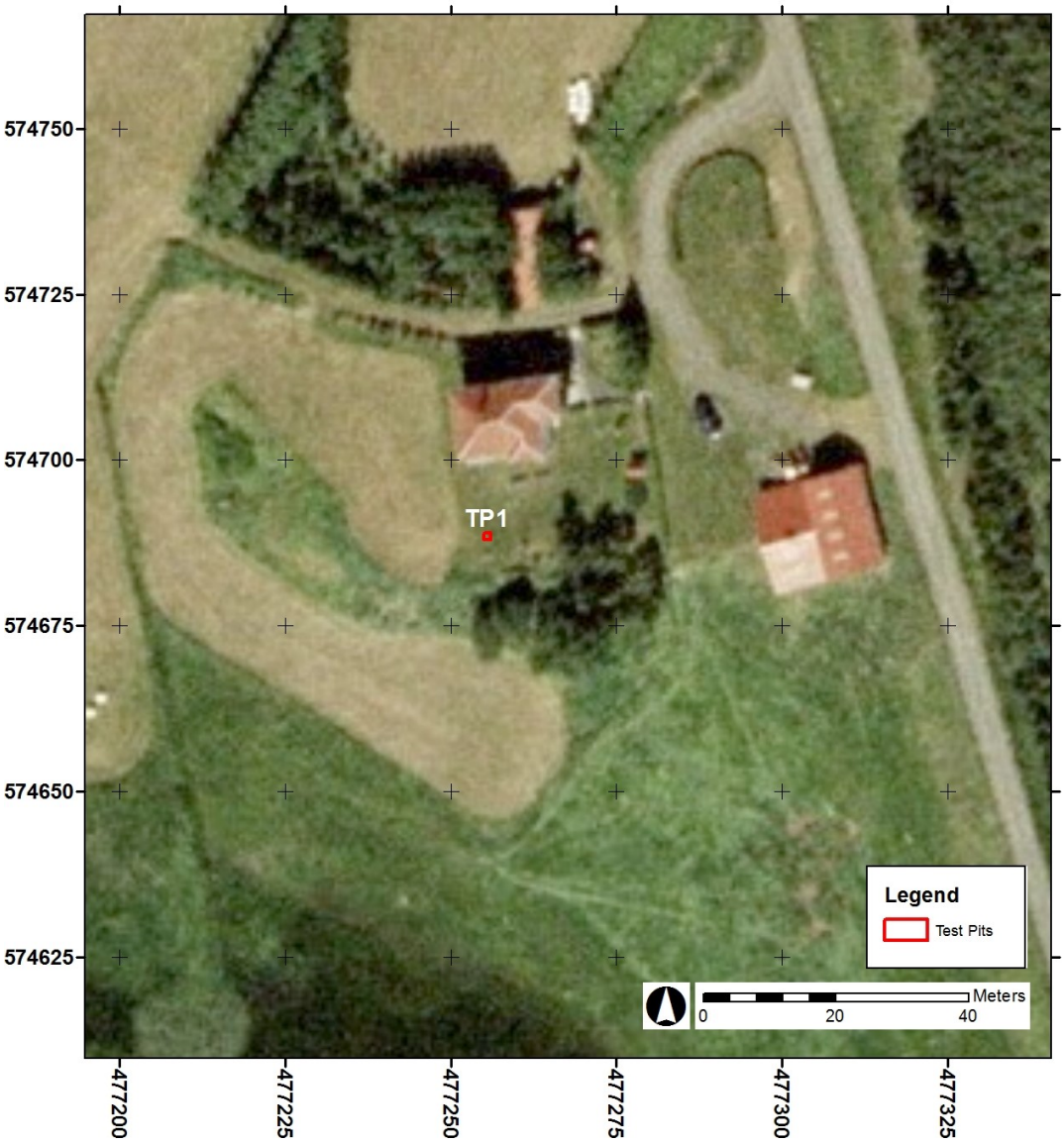


Figure 23. Hróarsdalur test pit locations.

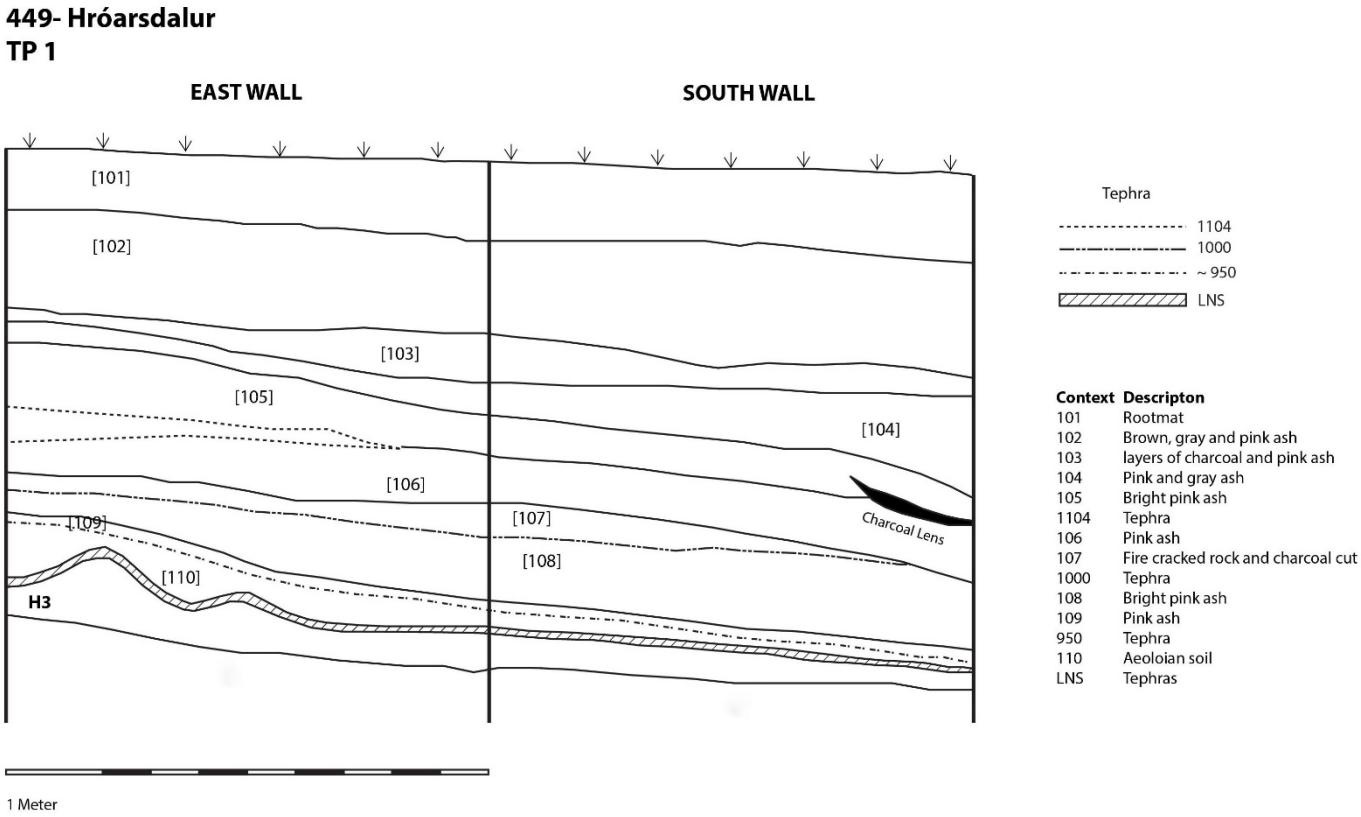


Figure 24. Hróarsdalur test pit 1 profile.

Figure 25. Hróarsdalur test pit 1.

Egg

Egg is one of the southernmost farms on Hegranes, only Eyhildarholt is further south. The farm first enters the historical record in A.D. 1388 as a property belonging to the bishop's see at Hólar. In 1713 the farm was valued at 50 hundreds along with the subfarm at Rein (Pálsson 2010). Like Hróarsdalur, Egg has no textual evidence of an early Christian church or cemetery and, to date, the survey has not produced any archaeological evidence for either, but more research is necessary to rule the possibility, since the neighboring farm of Keldudalur also had no evidence of a cemetery before one was discovered in 2002.

Coring:

A total of 64 cores were taken at the Egg farm, including the area of the two known farmsteads, and outlying areas. Of the 64 cores, 21 had cultural deposits. Most of the coring at Egg was away from the main known farmstead location and no effort has been made to reconstruct the farmstead extent at this time.

Outcomes of the 2015 survey and future work

In the 2015 field season the survey dated the establishment and measured the extent of six farmsteads (table 1). The distribution of farmsteads areas hints at a bi-modal distribution for site size at the end of the initial period (Settlement – AD 1104) examined (figure 26). Three of the farms are less than 5000 m2, only one farm is between 5,000 and 10,000 m2, while 2 farms are above 10,000 m2. Combining Keflavík Upper and Keflavík Lower into a single entity would make the distribution more consistent but potentially skewing the distribution to the right. Adding the abandoned small farms size (Catlin et al. 2016) extents would skew the distribution to the left. Thus, at this early stage, it is difficult to assess the initial distribution of farmstead extent in Hegranes. Additional farmstead measurements for this critical initial period will be forthcoming in future season and will hopefully provide a better idea about the trends in the distribution of initial farmstead sizes. This trend of modest farmstead expansion during the 1104-1300 period following by a decline in the post-1300 period to a size less than the original pre-1104 farmstead size was seen at 3 farmsteads surveyed this summer: Ás, Keflavík, and Garður. The farmstead at Hróarsdalur was smaller in both post-1104 phases than it was in the pre-1104 phase and Keldudalur remained roughly the same size throughout the post-1104 period. These changes in farmstead size may be related to the productive capacity of the individual farms, Hegranes more generally, or be largely the result of changing building, activity and depositional practices on the farms. Additional analysis of the farmstead deposits identified in the cores, especially the distribution of turf and midden as well as the thickness of those deposits, may help to resolve the reason behind the changes in farmstead size.

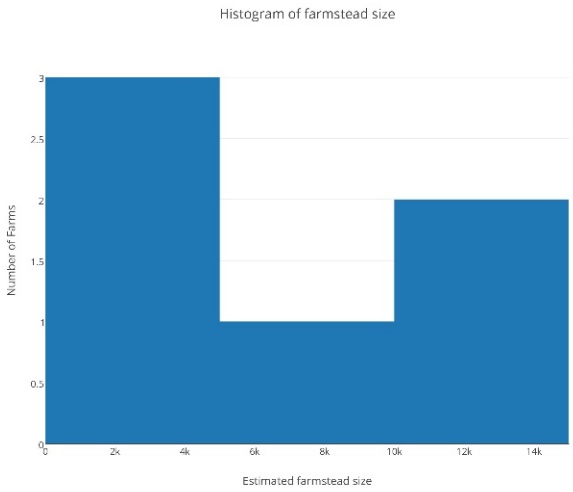


Figure 26. Distribution of pre-1104 farmstead extent among survey farms.

Farmstead establishment dates at the 5 farms surveyed so far in Hegranes are generally early. Four of the farms (Keflavík, Ás, Keldudalur, and Hróarsdalur) appear to date to the historically identified "Settlement Period" (archaeologically correlated with midden development before the mid-10th century tephra layer). The one farm surveyed so far with a relatively late date (Garður), may represent the relocation of an earlier farmstead, possibly located at the current site of the Hegranesþing and early modern farm of Litli-Garður. Of the five farms where establishment dates have been estimated, the earliest is probably Ás, followed by Hróarsdalur which presents a sequence that suggest establishment dates soon after the LNL. Although it is difficult to put into order, the next farm established is potentially Keflavík followed by Keldudalur. Both of these excavations

	Establishment	Farmstead Areal Extent (m^2)		
Farmstead	Date	Pre-1104	1104-1300	Post-1300
Ás	After LNS	14,200	16,900	13,900
Garður	Before 1104	4500	11,400	8200
Hróarsdalur	Before 950	5300	3400	3000
Keflavík Upper	Before 950	4100	4700	2700
Keflavík Lower	Before 1000	2600	1700	100
Keldudalur	Before 950	11,500	12,400	12,300

Table 1. Distribution of pre-1104 farmstead extent among survey farms.

suggest dates earlier than the mid-10th century tephra layer. In all likelihood, the last farm established, of the ones investigated, is Garður. Additional analysis of flotation samples and radiocarbon dates will potentially change this initial ordering, and will certainly refine the sequence.

The survey has generated new questions:

- Does Hegranes exhibit a substantially different settlement pattern than the neighboring region of Langholt? Most of the farmsteads investigated in Hegranes this summer were established before the mid-10th century tephra layer. This is unlike neighboring Langholt where less than half of the farmsteads were established by then (Steinberg, et al. 2016).
- Will the bi-modal distribution of initial farmstead sizes hold as more data is collected, or will further survey yield early farms that are much smaller in extent than those currently examined?
- What accounts for the increase or decline in the size of Hegranes farmsteads? Is this correlated with the political and economic prominences of the farms, environmental changes on the farm properties?
- Does the current location of Garður represent the relocation of an earlier farmstead?

Goals for 2016:

- Continue general reconnaissance for buried farmstead locations in Hegranes.
- Continue geophysical reconnaissance of potential buried farmsteads in Hegranes.
- Continue coring at known farmstead locations to estimate farmstead sizes for the pre-1104, 1104-1300, and post-1300 occupational phases.
- Continue farmstead test excavations to estimate earliest occupation date for farmsteads.
- Continue systematic reconnaissance of potential household and communal cemetery and church sites at Hegranes farms.

Appendix A: Spatial Controls: Coring, test excavations, geophysical survey grids, and ground control points for low-altitude aerial photography and photogrammetry

All spatial measurements collected in the survey utilize the ISNET 93 coordinate system.

Core locations

Core locations were measured using three methods: 1) location capture using the internal assisted GPS in the Apple iPads used for in-field data recording; 2) secondary measurement of core locations using a Topcon Hiper SR GNSS with RTK correction; 3) post processed core locations using Trimble GeoXH with Zepher antenna. The internal iPad location capture is only accurate to within approximately ±5 meters, which was generally sufficient for broad reconnaissance survey. The Hiper SR utilized a RTK correction from the local Sauðárkrókur base station via ÍSMAR and has an estimated accuracy of ±1 centimeter in the horizontal and ±2 centimeters in vertical location. The post processed Trimble GeoXH data has an estimated accuracy of ±30 centimeters.

Test trench locations

The corners of all test excavations were measured using the Hiper SR. All measurements and excavation geometries are stored in an ESRI-formatted geodatabase.

Spatial measurements: total station, kite- and pole-based low altitude aerial photography, photogrammetry

Spatial measurements were made using a Topcon total station or based on kite- and pole-based orthorectified images generated from multiple camera positions using Agisoft Photoscan photogrammetry software. All measurements use the ISNET93 coordinate system. For each photographic run, ground control points (GCPs) were placed in the subject area and measured with the total station for input into Photoscan to generate orthorectified composite images and corners of the excavation area and pinned in place to use as GCPs for the kite photos. Blue poker chips were used for the pole photos.

Ricoh GR was used with the kite and a Nikon Coolpix A was used with the pole. Both cameras have a fixed 18.33mm f/2.8 lens (28mm equivalent in a 35mm camera) and built in intervalometer, which was set to take photographs every 5 seconds. Both cameras were set to record data in RAW format. RAW photos were converted to TIFF using Adobe Photoshop for photogrammetry modeling in Photoscan.

For kite photos, the Ricoh GR camera was enclosed in layers of closed-cell polyethylene foam inside a Ziploc brand plastic box, which was hung from the kite line via a "Picavet" string suspension. For kite photos, the photo rig was suspended from an Air Affairs Sutton Flow Form 16. This design proved effective in protecting the camera during "hard landings" and in keeping the camera pointed downward at near-vertical angles during flight. Our standard photograph collecting procedure was for the kite operator to walk a loose grid pattern, walking a set number of strides, stopping long enough for the camera to take 2-3 shots, and repeating. When available, a second person stood either directly under the camera or to the side in order to keep the operator appraised of the area being photographed. Kite photos were collected at the beginning of fieldwork before site opening, at two occasions as excavation proceeded, and again at the end of the excavation prior to site closure.

Pole photos were collected of various contexts, structures, and of graves. The Nikon Coolpix A was suspended from a 4-meter extension pole topped by a mount that allows the camera to self-balance pointing down. For some features, such as the bottom of graves, the camera was simply held by hand and oblique shots were collected in addition to the top-down shots to better aid in 3d modelling of complex features in Photoscan.

The resulting photographs can be georeferenced and used to establish a visual overview of site and surface conditions including the location of visible ruins,

vegetation and other surface features to aid in the interpretation of geophysical anomalies. Agisoft's Photoscan photogrammetry software was used to produce 3d models of features. These models can be output as georeferenced orthophotos and digital elevation models (DEMs) for incorporation in GIS.

Kite-based and pole-based photography datasets include:

1) Unprocessed RAW images. Full collection of digital photos from each kite flight and pole run.
2) Selected TIFF converted images.
3) 3d models in Photoscan format.
4) Orthorectified composite images generated from 3d models in Photoscan.
5) Digital elevation models generated from 3d models in Photoscan.

Appendix B: Context register

Ás, Test Pit 1

CONTEXT	DESCRIPTION	STRATIGRAPHIC DATING	DEPTH (NW)	COMMENTS
101	Root mat	Modern - 1766	0 - 12	
102	Orange brown ash	Modern - 1300	12 - 43	
103	Wall cleanup	-	-	
104	Pink ash with bone and charcoal inclusions	1766 - 1300	43 - 90	
105	Pink ash with bone and charcoal inclusions	1766 - 1300	90 - 111	
106	Brown ash with turf patches	1766 - 1300	111 - 124	
107	Brown ash with lenses of pink ash	1766 - 1300	124 - 128	Bone, slag, & wool fragments (not collected)
108	Brown ash with lenses of pink ash	1766 - 1300	128 - 145	Slag & wool fragments (not collected)
1300	Black tephra Layer	1300 -	145 -	
109	Brown ash with lenses of pink ash	1300 - 1104	145 - 170	Bones collected
110	Brown ash with bone inclusions	1300 - 1104	170 - 175	Charcoal lens with fire-cracked rock in NW
Black Tephra	Patchy black tephra	1300 - 1104	175 -	
111	Brown ash with bone inclusions	1300 - 1104	175 - 178	
112	Brown ash with bone inclusions	1300 - 1104	180 - 188	Decrease in number of bones.
113	Reddish brown ash	1300 - 1104	188 - 190	
1104	Patchy tephra layer	1104 -	190 - 190	
115	Organic cultural layer	1104 - 872	190 - 200	
116	Laminated purple floors	1104 - 872	200 - 220	Greasy layer with charcoal inclusions
LNS	LNS directly under context 116	872	220 - 230	

Ás, Test Pit 3

CONTEXT	DESCRIPTION	STRATIGRAPHIC DATING	DEPTH (NW)	COMMENTS
101	Root mat	- Modern	0 - 8	
122	Beneath sod	Modern - 1104	8 - 10	
123	Mottled orange, brown, and black ash	Modern - 1104	10 - 15	Patches of 1104 and 1300
124	Iron pan mixed with cultural material	1300 - 1000	15 - 27	Contains patches of 1104
1000	Black tephra	1000 -	27	
125	Gray and pink ash	1000 - 872	27 - 43	
126	Brown and gray midden	1300 - 872	36 - 43	Cut turf
127	Bog	1000 - 872	43 - 63	undulating surface
128	Thin bog underneath Green tephra	950 -	63 - 70	2 mm lens of green-gray sand below tephra

Garður, Test Pit 1

CONTEXT	DESCRIPTION	STRATIGRAPHIC DATING	DEPTH (NW)	COMMENTS
101	Topsoil	Modern - 1766	0 - 20	Disturbed
102	turf layer	Modern - 1766	20 - 45	Possible Wall
103	Brown ash with turf	Modern - 1766	45 - 60	
1766	Tephra	1776 -	60	
105	Pink and gray ash	1300 - 1104	60-76	
1104	Tephra	1104 -	78 -	
106	gray and brown ash	1104 - 1000	78-89	
1000	Tephra	1000 -	89 - 89	
108	Brown ash	1000 - 870	89 - 94	
LNL		872 -	94-96	

Hróarsdalur, Test Pit 1

CONTEXT	DESCRIPTION	STRATIGRAPHIC DATING	DEPTH (NW)	COMMENTS
101	Rootmat	Modern - 1104	0 - 20	
102	Brown, gray and pink ash	Modern - 1104	20 - 33	potentially disturbed
103	layers of charcoal and pink ash	Modern - 1104	34 -	
104	Pink and gray ash	Modern - 1104	36 - 58	
105	Bright pink ash	Modern - 1104	58 - 65	Bits of turf
1104	Tephra	1104 -	58 - 58	
106	Pink ash	1104 - 950	65 - 88	Alternating layers of turf
107	Fire cracked rock and charcoal cut	1104 - 1000	-	Layer of charcoal at bottom
1000	Tephra		88	
108	Bright pink ash	950 - 870	88 - 91	Alternating layers of turf
109	Pink ash	950 - 870	91 - 96	
950	Tephra	950 -	96	
110	Aeolian soil	950 - 870	96-100	Flecks of charcoal and pink ash
LNS	Tephras		100-104	

Keflavík, Test Pit 1

CONTEXT	DESCRIPTION	STRATIGRAPHIC DATING	WEST WALL DEPTH (CM)	COMMENTS
111	Disturbed	After 1300	0-60	Heavily disturbed topsoil
112	Pink ash and gray ash	After 1300	60-155	
113	Pink ash and burnt turf	After 1300		Akin to cxt 110 in TP2
1300 Tephra	Gray	1300	170	
114	Pink ash and gray ash	1300-1104	155-170	
1104 Tephra	White	1104	170	

Keflavík, Test Pit 2

CONTEXT	DESCRIPTION	STRATIGRAPHIC DATING	DEPTH (CM)	NOTES
101	Disturbed surface	After 1776	0-24	
1776 Tephra	Gray/black	1776	24	
102	Pink ash and gray ash	1776-1104	24-60	Possibly Fill
103	Pink ash and gray ash	1776-1104	60-90	
104	Pink ash and gray ash	1776-1104	60-90	Cut into context 103 & 108
105	Pink ash and gray ash	1776-1104	90-100	
106	Pink ash and gray ash	1776-1104	90-100	
107	Pink ash, charcoal, and gray ash	1776-1104	80-100	
108	Turf	1776-1104	90-120	Probable turf wall w/1104 mostly on east side
109	Pink ash and gray ash	1776-1104	120-140	
110	Greasy and black	1776-1104	140-150	

Keflavík, Test Pit 3

CONTEXT	DESCRIPTION	STRATIGRAPHIC DATING	WEST WALL DEPTH	NOT
115	Mixed turf	After 1776	0-30	
116	Disturbed	After 1776	20-40	Possibly Fill
117	Pink ash and gray ash	After 1776	40-50	Bone inclusions (both unburnt)
1766 Tephra	Black/gray tephra	1766	50	
118	Pink ash and gray ash	1776-1300	50-55	
Black tephra	Black/gray tephra	1776-1300	53	
119	Pink ash, charcoal, and gray ash	1776-1300	55-140	
120	Pink ash and gray ash	1776-1300	140-170	
1300 Tephra	Gray tephra	1300	170	
121	Laminated pink ash with bits of white patchy tephra	1300-1104	170-190	
1104 Tephra	Yellow-White Tephra	1104	190	
122	Laminated pink ash	1104-1000	190-195	
1000 Tephra	Gray tephra	1000	195-197	
123	Pink ash	1000-872	197-199	
124	Aeolian Deposit with flecks of charcoal	872	199-201	
H3-H4 Teprhas	Yellow Tephra	Prehistoric	201-205	

Keldudalur, Test Pit 1

CONTEXT	DESCRIPTION	STRATIGRAPHIC DATING	DEPTH (NW)	COMMENTS
101	Topsoil	Modern - 1300	0-42	Disturbed
102	Pink and Gray Ash	Modern - 1300	42- 50	
1300	Tephra	1300	50	
103	Mottled gray and pink ash	1300 - 1104	50- 53	Abundant charcoal flecks
104	Pink and Brown ash	1300 - 1104	53- 58	
1104	Tephra	1104	58	
105	Brown ash with Aeolian soil	1104 - 950	58- 70	Several bright pink lenses
950	Tephra	950	70	
106	Brightly mottled pink and gray ash	950 - 870	70- 71	Distinct charcoal pieces
107	Brown ash	950 - 870	71- 84	infrequent charcoal flecks
LNS	Tephra sequence	870	84	
108	Aeolian soil	870 -	84-95	

Appendix C: Finds register

Farm	Site #	Excavation	Context	Find #	Count	Material	Retrieval	Archaeologist	Date	Description	Retained
Ás	442	TP1	101	1	77	Glass	Screen	EDJ	6-Aug-15		
Ás	442	TP1	101	7	109	Ceramic	Screen	EDJ	6-Aug-15		
Ás	442	TP1	101	13	3	Metal	Screen	EDJ	6-Aug-15		
Ás	442	TP1	102	2	3	Ceramic	Screen	EDJ	6-Aug-15		
Ás	442	TP1	102	3	6	Glass	Screen	EDJ	6-Aug-15		
Ás	442	TP1	102	14	1	Metal	Screen	EDJ	6-Aug-15		
Ás	442	TP1	103	4	2	Ceramic	Screen	EDJ	6-Aug-15		
Ás	442	TP1	103	5	7	Glass	Screen	EDJ	6-Aug-15		
Ás	442	TP1	104	15	1	Metal	Screen	EDJ	6-Aug-15		
Ás	442	TP1	105	6	1	Ceramic	Screen	EDJ	6-Aug-15		
Ás	442	TP1	106	10	1	Textile	Screen	EDJ	6-Aug-15		
Ás	442	TP1	106	16	1	Metal	Screen	EDJ	6-Aug-15		
Ás	442	TP1	106	17	1	Metal	Screen	EDJ	6-Aug-15		
Ás	442	TP1	107	11	1	Textile	Screen	EDJ	6-Aug-15		
Ás	442	TP1	108	12	1	Textile	Screen	EDJ	6-Aug-15		
Ás	442	TP1	110	18	1	Metal	Screen	EDJ	6-Aug-15		
Ás	442	TP1	110	19	1	Metal	Screen	EDJ	6-Aug-15		
Ás	442	TP1	111	21	1	Metal	Screen	EDJ	6-Aug-15		
Ás	442	TP1	112	8	1	Ivory	Screen	EDJ	6-Aug-15	possible medieval comb	*
Ás	442	TP1	112	9	1	Lithic	Screen	EDJ	6-Aug-15		
Ás	442	TP1	112	20	1	Metal	Screen	EDJ	6-Aug-15		
Ás	442	TP2	114	1	43	Ceramic	Screen	EDJ	6-Aug-15		
Ás	442	TP2	114	2	76	Glass	Screen	EDJ	6-Aug-15		
Ás	442	TP2	114	10		Metal	Screen	EDJ	6-Aug-15		
Ás	442	TP2	117	3	54	Ceramic	Screen	EDJ	6-Aug-15		
Ás	442	TP2	117	4	31	Glass	Screen	EDJ	6-Aug-15		
Ás	442	TP2	117	11		Metal	Screen	EDJ	6-Aug-15		
Ás	442	TP2	118	7	1	Ceramic	Screen	EDJ	6-Aug-15		
Ás	442	TP2	118	8	4	Glass	Screen	EDJ	6-Aug-15		
Ás	442	TP2	118	14	4	Metal	Screen	EDJ	6-Aug-15		
Ás	442	TP2	120	5	50	Glass	Screen	EDJ	6-Aug-15		
Ás	442	TP2	120	6	19	Ceramic	Screen	EDJ	6-Aug-15		

Farm	Site #	Excavation	Context	Find #	Count	Material	Retrieval	Archaeologist	Date	Description	Retained
Ás	442	TP2	120	9	2	Plastic	Screen	EDJ	6-Aug-15	Buttons	
Ás	442	TP2	120	12		Metal	Screen	EDJ	6-Aug-15		
Ás	442	TP2	121	13	4	Metal	Screen	EDJ	6-Aug-15		
Ás	442	TP3	122	1	1	Ceramic	Screen	EDJ	6-Aug-15	Transferware?	
Ás	442	TP4	129	2		Metal	Screen	EDJ	6-Aug-15	Assorted nails and other iron objects	
Ás	442	TP4	129	7	51	Ceramic	Screen	EDJ	6-Aug-15		
Ás	442	TP4	129	8	51	Glass	Screen	EDJ	6-Aug-15		
Ás	442	TP4	130	3	11	Metal	Screen	EDJ	6-Aug-15	Assorted square nails and other iron objects	
Ás	442	TP4	130	9	5	Ceramic	Screen	EDJ	6-Aug-15	Glazed redware and stoneware	
Ás	442	TP4	131	1	1	Textile	Screen	EDJ	6-Aug-15		
Ás	442	TP4	131	4		Metal	Screen	EDJ	6-Aug-15	Assorted square nails and other objects	
Ás	442	TP4	131	10	4	Ceramic	Screen	EDJ	6-Aug-15	Glazed redware	
Ás	442	TP4	132	5		Metal	Screen	EDJ	6-Aug-15	Assorted square nails and other objects	
Ás	442	TP4	132	6		Metal	Screen	EDJ	6-Aug-15	Assorted square nails and other objects	
Ás	442	TP4	132	11	4	Glass	Screen	EDJ	6-Aug-15		
Keflavík	445	TP1	0	1	27	Ceramic	Screen	EDJ	6-Aug-15		
Keflavík	445	TP1	0	2	97	Glass	Screen	EDJ	6-Aug-15		
Keflavík	445	TP1	0	3	100	Metal	Screen	EDJ	8-Jun-15		
Keflavík	445	TP2	101	1	17	Glass	Bulk	EDJ	6-Aug-15		
Keflavík	445	TP2	102	2	2	Ceramic	Screen	EDJ	6-Aug-15		
Keflavík	445	TP2	102	3	5	Glass	Screen	EDJ	6-Aug-15		
Keflavík	445	TP2	102	6	1	Metal	Bulk	EDJ	6-Aug-15		
Keflavík	445	TP2	104	4	1	Glass	Bulk	EDJ	6-Aug-15		
Keflavík	445	TP2	105	5	1	Glass	Bulk	EDJ	6-Aug-15		
Keflavík	445	TP2	105	7	1	Metal	Bulk	EDJ	6-Aug-15		
Keflavík	445	TP2	107	8	1	Metal	Bulk	EDJ	6-Aug-15		

Farm	Site #	Excavation	Context	Find #	Count	Material	Retrieval	Archaeologist	Date	Description	Retained
Keflavík	445	TP3	115	1	1	Metal	Screen	EDJ	6-Aug-15		
Keflavík	445	TP3	115	5	26	Glass	Screen	EDJ	6-Aug-15		
Keflavík	445	TP3	115	6	9	Ceramic	Screen	EDJ	6-Aug-15		
Keflavík	445	TP3	116	2	10	Metal	Screen	EDJ	6-Aug-15	>10 count	
Keflavík	445	TP3	116	7	13	Glass	Screen	EDJ	6-Aug-15		
Keflavík	445	TP3	116	8	8	Ceramic	Screen	EDJ	6-Aug-15		
Keflavík	445	TP3	117	3	1	Metal	Screen	EDJ	6-Aug-15		
Keflavík	445	TP3	117	9	2	Glass	Screen	EDJ	6-Aug-15		
Keflavík	445	TP3	117	10	2	Ceramic	Screen	EDJ	6-Aug-15		
Keflavík	445	TP3	118	4	1	Metal	Screen	EDJ	6-Aug-15		
Keflavík	445	TP3	120	11	1	Metal	Screen	EDJ	6-Aug-15	Copper fragment	*
Hróarsdalur	449	TP1	104	1		Metal	Bulk	EDJ	30-Jul-15	iron object possibly nail	
Keldudalur	450	TP3	119	1	1	Metal	Bulk	RSS	12-Aug-15	Iron Nail	*
Keldudalur	450	TP3	119	2	1	Metal	Bulk	RSS	12-Aug-15	Iron Hook	*
Minni-Ás	44201	TP2	104	1		Slag	Point	SNC	30-Jul-15		*
Minni-Ás	44201	TP3	117	2		Lithic	Point	SNC	3-Aug-15	FRC	*
Grænagerði (Helluland)	44701		101	1		bone	core	KAC	27-Jul-15	possible ivory fragment	*

Appendix D: Sample register

FARM	EXCAVATION	ID	DATE	CONTEXT	SAMPLE #	TYPE	VOL (L)	BAGS	DESCRIPTION
Ás	TP1	EDJ	29-Jul-15	106	1	Flotation	7.2	1	Bot samples
Ás	TP1	EDJ	24-Jul-15	109	2	Flotation	10.9	2	Bot samples
Ás	TP1	EDJ	25-Jul-15	110	3	Flotation	11.4	2	Pre-1300 miden. Bot samples
Ás	TP1	EDJ	25-Jul-15	111	4	Flotation	11.1	2	Bot sample from dense midden with heavy bone inclusions under patchy unknown black tephra.
Ás	TP1	EDJ	25-Jul-15	112	5	Flotation	11.9	2	Bot samples from pre-1300 layer.
Ás	TP1	EDJ	25-Jul-15	113	6	Flotation	12.4	2	Bot sample
Ás	TP1	EDJ	27-Jul-15	115	7	Flotation	12	2	Pre-1104 bot sample.
Ás	TP1	EDJ	25-Jul-15	116	8	Flotation	26.4	4	Pre-1104 sample, context just above LNS, bot sample
Ás	TP1	JMS	28-Jul-15	870	9	Flotation	0.9	1	From side wall
Ás	TP3	KRW	31-Jul-15	122	5	Flotation	14	2	Botanical sample
Ás	TP3	KRW	31-Jul-15	123	6	Flotation	14	2	Botanical sample
Ás	TP3	KRW	4-Aug-15	124	7	Flotation	21	3	Botanical sample
Ás	TP3	KRW	31-Jul-15	125	8	Flotation	13	2	Botanical sample
Ás	TP3	KRW	31-Jul-15	125	4	Wood		1	Sample of decaying wood deposit, NE corner
Ás	TP3	KRW	31-Jul-15	126	9	Flotation	15.5	2	Botanical sample below 1104
Ás	TP3	KRW	4-Aug-15	127	10	Flotation	15	2	Botanical sample
Ás	TP3	KRW	3-Aug-15	127	6	Wood		1	Sample of wood around green tephra
Ás	TP3	KRW	3-Aug-15	128	11	Flotation	0.3	1	LNL botanical sample
Ás	TP3	JMS	31-Jul-15	871	14	Tephra			
Ás	TP3	JMS	31-Jul-15	934	13	Tephra			
Ás	TP3	JMS	31-Jul-15	1000	12	Tephra			Very thin layer
Garður	TP1	EDJ	10-Aug-15	106	1	Flotation	12	2	
Garður	TP1	EDJ	10-Aug-15	106	2	Flotation	10	2	
Garður	TP1	EDJ	11-Aug-15	108	3	Flotation	4.3	1	

Garður	TP1	EDJ	11-Aug-15	871	4	Flotation	5.5	1	LNS
Keflavík	TP1	JMS	29-Jul-15	1776	1				Tephra
FARM	EXCAVATION	ID	DATE	CONTEXT	SAMPLE #	TYPE	VOL (L)	BAGS	DESCRIPTION
Keflavík	TP3	EDJ	16-Jul-15	122	1	Flotation	13.5	2	Float for botanicals. Pre-1104, post-1000
Keflavík	TP3		16-Jul-15	123	2	Flotation	15.5	2	Pre-1000(?), float sample for radiocarbon
Keflavík	TP3	EDJ	16-Jul-15	124	3	Flotation	6.5	2	Float samples for botanical/radiocarbon
Hróarsdalur	TP1	EDJ	30-Jul-15	105	1	Flotation	4	1	Pre-1104 midden. Directly below H1
Hróarsdalur	TP1	EDJ	30-Jul-15	106	2	Flotation	12	2	Top of context
Hróarsdalur	TP1	EDJ	31-Jul-15	106	3	Flotation	12	2	Bottom of context- above green tephra
Hróarsdalur	TP1	EDJ	31-Jul-15	107	4	flotation	5	1	Pre-1104, post-950 fire pit
Hróarsdalur	TP1	EDJ	30-Jul-15	108	5	Flotation	11.5	2	Pre-950 midden. Open of cxt
Hróarsdalur	TP1	EDJ	30-Jul-15	108	6	Flotation	10.5	2	Pre ~950 midden. Bottom of cxt.
Hróarsdalur	TP1	AH EDJS	31-Jul-15	109	7	Flotation	12	2	Sample of midden mixed with LNS
Hróarsdalur	TP1	EDJ	31-Jul-15	109	10				Charcoal sample
Hróarsdalur	TP1	EDJ	31-Jul-15	110	8	Flotation	13.5	2	
Hróarsdalur	TP1		31-Jul-15	871	11	Flotation	10.5	1.5	Pre-LNS float sample
Hróarsdalur	TP1		31-Jul-15	871	11	Flotation	10.5	1.5	Pre-LNS sample
Hróarsdalur	TP1		31-Jul-15	950					
Hróarsdalur	TP1	BND	31-Jul-15	1000	13	Tephra			Tephra
Hróarsdalur	TP1	BND	31-Jul-15	1104	12	Tephra			Tephra
Hróarsdalur	TP1	JMS	31-Jul-15	1766	11	Tephra			Tephra
Keldudalur	TP1	RSS	6-Aug-15	0	10	Flotation	5.8	1	
Keldudalur	TP1		10-Aug-15	0	1				
Keldudalur	TP1	RSS	6-Aug-15	0	10	Flotation	5.8	1	
Keldudalur	TP1		4-Aug-15	101					
Keldudalur	TP1	KRW	5-Aug-15	102	2	Flotation	13.5	2	Botanical sample
Keldudalur	TP1	KRW	5-Aug-15	103	3	Flotation	14	2	Botanical sample
Keldudalur	TP1	KRW	5-Aug-15	104	4	Flotation	14.5	2	Botanical sample
Keldudalur	TP1	KRW	5-Aug-15	105	6	Flotation	15	2	Botanical sample
Keldudalur	TP1	KRW	5-Aug-15	106	8	Flotation	12	2	Botanical sample
Keldudalur	TP1	RSS	7-Aug-15	107	9	Flotation	13	2	Botanical sample
Keldudalur	TP1	RSS	6-Aug-15	107	11	Tephra		1	Green tephra in LNS sample

FARM	EXCAVATION	ID	DATE	CONTEXT	SAMPLE #	TYPE	VOL (L)	BAGS	DESCRIPTION
Keldudalur	TP1	RSS	6-Aug-15	871	10	Flotation	5.8	1	
Keldudalur	TP1	RSS	6-Aug-15	871	11	Tephra			
Keldudalur	TP1	RSS	5-Aug-15	934	7	Flotation	2	1	
Keldudalur	TP1	RSS	5-Aug-15	1104	5	Flotation	6.3	1	Botanical sample
Keldudalur	TP2	CCL	11-Aug-15	113	2				Slag?
Keldudalur	TP2	RSS	11-Aug-15	114	1	Flotation	7.8	2	Botanical
Keldudalur	TP3	RSS	12-Aug-15	117		Metal		1	Slag sample
Keldudalur	TP3	RSS	11-Aug-15	117	3	Metal			Slag sample
Keldudalur	TP3	RSS	12-Aug-15	119	1	Flotation	5.8	1	
Keldudalur	TP3	RSS	12-Aug-15	871	2	Flotation	5.5	1	All visible cultural material removed before sample was taken
Minni-Ás	TP2	KAC	30-Jul-15	106	1	Flotation	2	1	Under 1300
Minni-Ás	TP2	KAC	31-Jul-15	107	2	Flotation	12.5	2	Float from top and mid context
Minni-Ás	TP2	AKC	31-Jul-15	110	3	Flotation	12.4	2	Turf collapse
Minni-Ás	TP2	AKC	31-Jul-15	111	4	Flotation	6.4	2	Midden
Minni-Ás	TP2	AKC	31-Jul-15	111	1	Radiocarbon		1	Charcoal from midden
Minni-Ás	TP2	KAC	3-Aug-15	111	5	flotation	12.3	1	Midden just above H1
Minni-Ás	TP2	KAC	3-Aug-15	112	6	flotation	2.7	1	H1
Minni-Ás	TP2	KAC	3-Aug-15	113	7	flotation	12.3	2	Under H1 in midden
Minni-Ás	TP2	KAC	3-Aug-15	114	2	radiocarbon		1	Radiocarbon -charcoal
Minni-Ás	TP2	KAC	3-Aug-15	114	8	flotation	12.7	2	Midden floats
Minni-Ás	TP2	KAC	3-Aug-15	114	3	Radiocarbon		1	Charcoal from just above H3
Minni-Ás	TP3	SNC	3-Aug-15	115	1	Flotation	5.1	1	Bot
Minni-Ás	TP3	GMC	3-Aug-15	116	2	Flotation	1.9	1	Bot sample
Minni-Ás	TP3	GMC	3-Aug-15	116	1	Radiocarbon		1	Radiocarbon
Minni-Ás	TP3	SNC	3-Aug-15	117	3	Flotation	6.7	1	Bot sample
Minni-Ás	TP3	SNC	3-Aug-15	117	2	Radiocarbon		1	Radiocarbon
Túnfótur	TP1	KAC	5-Aug-15	104	1	Flotation	6.9	1	Turf burning pit thing
Túnfótur	TP1	KAC	5-Aug-15	105	2	Flotation	12.6	2	Under 1300?
Túnfótur	TP1	KAC	6-Aug-15	107	4	Flotation	12.5	2	Under H1
Túnfótur	TP1	KAC	6-Aug-15	108	5	Flotation	14.4	2	LDC/midden
Túnfótur	TP1	KAC	6-Aug-15	109	6	Flotation	23.5	3	Party floor floats

Túnfótur	TP1	KAC	6-Aug-15	109	1	radiocarbon		1	Charcoal from bottom of 109
FARM	EXCAVATION	ID	DATE	CONTEXT	SAMPLE #	TYPE	VOL (L)	BAGS	DESCRIPTION
Túnfótur	TP1	KAC	7-Aug-15	110	7	Flotation	14.4	2	Under floor(?), thuverized prehistoric, probably includes some lnl ... In retrospect this is probably old turf collapse
Túnfótur	TP1	KAC	7-Aug-15	111	8	Flotation	6.6	1	Top of midden pit
Túnfótur	TP1	KAC	7-Aug-15	111	9	Flotation	2.4	1	Base of midden pit
Túnfótur	TP1	KAC	6-Aug-15	1104	3	Flotation	7.6	1	Tephra

Appendix E: Photographic register

FARM	EXCAVATION	DATE	ID	CONTEXT	DESCRIPTION	DIRECTION	IMAGE #
Ás	TP1	24-Jul-15	EDJ	106	Opening of cxt 106	W	731
Ás	TP1	24-Jul-15	EDJ	106	Opening of cxt 106	N	732
Ás	TP1	24-Jul-15	EDJ	106	Opening of cxt 106	N	733
Ás	TP1	24-Jul-15	EDJ	1300	1300	W	734
Ás	TP1	24-Jul-15	EDJ	1300	1300	W	735
Ás	TP1	24-Jul-15	EDJ	1300	1300	N	736
Ás	TP1	24-Jul-15	EDJ	1300	1300	N	737
Ás	TP1	24-Jul-15	EDJ	1300	1300	N	738
Ás	TP1	25-Jul-15	EDJ	1000	Unknown patchy black tephra, possibly 1000 layer? Close up of SE corner.	Above	739
Ás	TP1	25-Jul-15	EDJ	112	Opening of cxt 112	W	740
Ás	TP1	25-Jul-15	EDJ	112	Opening of cxt 112	W	741
Ás	TP1	25-Jul-15	EDJ	1104	H1 Tephra Layer	E	1020
Ás	TP1	25-Jul-15	EDJ	1104	H1 Tephra Layer	E	1021
Ás	TP1	25-Jul-15	EDJ	1104	H1 Tephra Layer	W	1022
Ás	TP1	25-Jul-15	EDJ	1104	H1 Tephra Layer	W	1023
Ás	TP1	27-Jul-15	EDJ	116	opening of cxt 116.	E	1024
Ás	TP1	27-Jul-15	EDJ	116	opening of cxt 116.	E	1025
Ás	TP1	27-Jul-15	EDJ	116	opening of cxt 116.	E	1026
Ás	TP1	27-Jul-15	EDJ	116	opening of cxt 116.	W	1027
Ás	TP1	27-Jul-15	EDJ	116	opening of cxt 116.	W	1028
Ás	TP1	27-Jul-15	EDJ	871	Opening of LNS	W	1029
Ás	TP1	27-Jul-15	EDJ	871	Opening of LNS	W	1030
Ás	TP1	27-Jul-15	EDJ	871	Opening of LNS	W	1031
Ás	TP1	27-Jul-15	EDJ	871	Opening of LNS	E	1032
Ás	TP1	27-Jul-15	EDJ	871	Opening of LNS	E	1033
Ás	TP1	27-Jul-15	EDJ	871	Opening of LNS	E	1034
Ás	TP1	29-Jul-15		102			1096
Ás	TP2	29-Jul-15	EDJ	121	Close of Cxt 121	N	526
Ás	TP2	29-Jul-15	EDJ	121	Close of Cxt 121	N	527
Ás	TP2	29-Jul-15	EDJ	121	Close of Cxt 121	N	527
Ás	TP2	29-Jul-15	EDJ	121	Close of Cxt 121	W	528
Ás	TP2	29-Jul-15	EDJ	121	Close of Cxt 121	W	529
Ás	TP2	29-Jul-15	EDJ	121	Close of Cxt 121	W	530
Ás	TP2	29-Jul-15	EDJ	121	Close of Cxt 121	S	531
Ás	TP2	29-Jul-15	EDJ	121	Close of Cxt 121	S	532
Ás	TP2	29-Jul-15	EDJ	121	Close of Cxt 121	E	533
Ás	TP2	29-Jul-15	EDJ	121	Close of Cxt 121	E	534
Ás	TP2	29-Jul-15	EDJ	120	Close of cxt 120. Close up of cut	E	535
Ás	TP2	29-Jul-15	EDJ	120	Close of cxt 120. Close up of cut	E	536
Ás	TP2	29-Jul-15	EDJ	120	Close of cxt 120. Close up of cut	S	537
Ás	TP3	30-Jul-15	KRW	124	Opening of CXT 124	West	4793
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	North	4863

FARM	EXCAVATION	DATE	ID	CONTEXT	DESCRIPTION	DIRECTION	IMAGE #
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	North	4864
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	Above	4865
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	Above	4866
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	Above	4867
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	South	4868
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	South	4869
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	South	4870
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	South	4871
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	East	4872
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	East	4873
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	East	4874
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	West	4875
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	West	4876
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	Zoom	4877
Ás	TP3	30-Jul-15	KRW	124	Closing of CXT 124	Above	4878
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	Zoom	4878
Ás	TP3	30-Jul-15	KRW	124	Closing of CXT 124	Above	4879
Ás	TP3	03-Aug-15	KRW	127	Wood and Green Tephra	Zoom	4879
Ás	TP3	30-Jul-15	KRW	124	Closing of CXT 124	Above	4880
Ás	TP3	30-Jul-15	KRW	124	Closing of CXT 124	South	4881
Ás	TP3	30-Jul-15	KRW	124	Closing of CXT 124	East	4882
Ás	TP3	30-Jul-15	KRW	124	Closing of CXT 124	North	4883
Ás	TP3	30-Jul-15	KRW	124	Closing of CXT 124	North	4884
Garður	TP1	10-Aug-15	EDJ	1104	patchy H1 tephra layer through most of the unit	Above	2781
Garður	TP1	10-Aug-15	EDJ	1104	patchy H1 tephra layer through most of the unit	Above	2782
Garður	TP1	11-Aug-15	EDJ	108	in process 108	above	2784
Garður	TP1	11-Aug-15	EDJ	108	close of 108	above	2786
Keflavík	TP3	15-Jul-15	GSS	117	1766 - close of 117	W	697
Keflavík	TP3	15-Jul-15	GSS	117	1766 - close of 117	W	698
Keflavík	TP3	15-Jul-15	GSS	117	1766 - close of 117	S	699
Keflavík	TP3	15-Jul-15	GSS	117	1766 - close of 117	N	700
Keflavík	TP3	15-Jul-15	GSS	120	1300 tephra. close of cxt 120	W	703
Keflavík	TP3	15-Jul-15	GSS	120	1300 tephra. close of cxt 120	W	704
Keflavík	TP3	15-Jul-15	GSS	120	1300 tephra. close of cxt 120	W	705
Keflavík	TP3	15-Jul-15	GSS	120	1300 tephra. close of cxt 120	W	706
Keflavík	TP3	15-Jul-15	GSS	121	H1. close of cxt 121	W	707
Keflavík	TP3	15-Jul-15	GSS	121	H1. close of cxt 121	W	708
Keflavík	TP3	15-Jul-15	GSS	121	H1. close of cxt 121	N	709
Keflavík	TP3	15-Jul-15	GSS	121	H1. close of cxt 121	E	710
Keflavík	TP3	15-Jul-15	GSS	121	H1. close of cxt 121	E	711
Keflavík	TP3	15-Jul-15	GSS	121	H1. close of cxt 121	S	712
Keflavík	TP3	16-Jul-15	GSS	122	black tephra (1000?). close of cxt 122	W	713

FARM	EXCAVATION	DATE	ID	CONTEXT	DESCRIPTION	DIRECTION	IMAGE #
Keflavík	TP3	16-Jul-15	GSS	122	black tephra (1000?). close of cxt 122	W	714
Keflavík	TP3	16-Jul-15	GSS	122	black tephra (1000?). close of cxt 122	N	715
Keflavík	TP3	16-Jul-15	GSS	122	black tephra (1000?). close of cxt 122	N	716
Keflavík	TP3	16-Jul-15	GSS	122	black tephra (1000?). close of cxt 122	E	717
Keflavík	TP3	16-Jul-15	GSS	122	black tephra (1000?). close of cxt 122	S	718
Keflavík	TP3	16-Jul-15	GSS	122	black tephra (1000?). close of cxt 122	S	719
Keflavík	TP3	16-Jul-15	GSS	122	black tephra (1000?). close of cxt 122	E	720
Hróarsdalur	TP1	30-Jul-15	EDJ	1104	H1 surface	Above	546
Hróarsdalur	TP1	30-Jul-15	EDJ	104	H1 surface	Above	547
Hróarsdalur	TP1	30-Jul-15	EDJ	107	cxt 107 and green tephra layer	Above	548
Hróarsdalur	TP1	30-Jul-15	EDJ	107	cxt 107 and green tephra layer	Above	549
Hróarsdalur	TP1	30-Jul-15	EDJ	107	cxt 107 and green tephra layer	Above	550
Hróarsdalur	TP1	30-Jul-15	EDJ	107	cxt 107 and green tephra layer	Above	551
Hróarsdalur	TP1	30-Jul-15	EDJ	107	cxt 107 and green tephra layer	Above	552
Hróarsdalur	TP1	30-Jul-15	EDJ	107	cxt 107 and green tephra layer	Above	553
Hróarsdalur	TP1	30-Jul-15	EDJ	107	cxt 107 and green tephra layer	Above	554
Hróarsdalur	TP1	30-Jul-15	EDJ	950	tephra with cxt 107 (fire pit) removed	above	555
Hróarsdalur	TP1	30-Jul-15	EDJ	950	tephra with cxt 107 (fire pit) removed	above	556
Hróarsdalur	TP1	30-Jul-15	EDJ	950	tephra with cxt 107 (fire pit) removed	above	557
Hróarsdalur	TP1	31-Jul-15	EDJ	109	opeming context 109	above	558
Hróarsdalur	TP1	31-Jul-15	EDJ	109	opeming context 109	above	559
Hróarsdalur	TP1	31-Jul-15	EDJ	109	opeming context 109	above	560
Hróarsdalur	TP1	31-Jul-15	EDJ	109	opeming context 109	above	561
Hróarsdalur	TP1	31-Jul-15	EDJ	110	close of 109	above	562
Hróarsdalur	TP1	31-Jul-15	EDJ	110	close of 109	above	563
Hróarsdalur	TP1	31-Jul-15	EDJ	110	close of 109, open of 110	above	564
Hróarsdalur	TP1	31-Jul-15	AHS	871	LNS surface	above	565
Hróarsdalur	TP1	31-Jul-15	AHS	profile	LNS surface	above	566
Hróarsdalur	TP1	31-Jul-15	EDJ		E profile	E	568
Hróarsdalur	TP1	31-Jul-15	EDJ		E profile	E	568
Keldudalur	TP1	04-Aug-15	KRW	101	1300 tephra	North	4887
Keldudalur	TP1	04-Aug-15	RSS	1300		N	4887

FARM	EXCAVATION	DATE	ID	CONTEXT	DESCRIPTION	DIRECTION	IMAGE #
Keldudalur	TP1	04-Aug-15	KRW	101	1300 tephra and wall	North	4888
Keldudalur	TP1	04-Aug-15	RSS	1300		N	4888
Keldudalur	TP1	04-Aug-15	KRW	101	1300 tephra close up	Northeast	4889
Keldudalur	TP1	04-Aug-15	RSS	1300		N	4889
Keldudalur	TP1	04-Aug-15	KRW	101	1300 tephra	South	4890
Keldudalur	TP1	04-Aug-15	RSS	1300		S	4890
Keldudalur	TP1	05-Aug-15	RSS	1104	Katie & 1104	E	4892
Keldudalur	TP1	05-Aug-15	KRW	104	H1	North	4893
Keldudalur	TP1	05-Aug-15	RSS	1104	1104	N	4893
Keldudalur	TP1	05-Aug-15	KRW	104	H1 and wall	North	4894
Keldudalur	TP1	05-Aug-15	RSS	1104	1104	N	4894
Keldudalur	TP1	05-Aug-15	KRW	105	Green tephra (934?)	North	4897
Keldudalur	TP1	05-Aug-15	RSS	934		North	4897
Keldudalur	TP1	05-Aug-15	KRW	105	Green tephra (934?)	North	4898
Keldudalur	TP1	05-Aug-15	RSS	934		North	4898
Keldudalur	TP1	05-Aug-15	KRW	105	Green tephra (934?)	NE corner	4899
Keldudalur	TP1	05-Aug-15	RSS	934	northeast corner	North	4899
Keldudalur	TP1	05-Aug-15	KRW	105	Green tephra (934?)	West	4900
Keldudalur	TP1	05-Aug-15	RSS	934	plan view	overhead	4900
Keldudalur	TP1	05-Aug-15	KRW	105	Green tephra (934?)	West	4901
Keldudalur	TP1	05-Aug-15	RSS	934	northeast corner	south	4901
Keldudalur	TP1	06-Aug-15	RSS	107	North side wall	North	4902
Keldudalur	TP1	06-Aug-15	RSS	107	North side wall	North	4903
Keldudalur	TP1	06-Aug-15	RSS	107	North side wall	North	4904
Keldudalur	TP1	06-Aug-15	RSS	107	North side wall	North	4905
Keldudalur	TP1	06-Aug-15	RSS	107	North side wall	North	4906
Keldudalur	TP1	06-Aug-15	RSS	107	North side wall	North	4907
Keldudalur	TP3	12-Aug-15	RSS	117	possible post pad	N	4954
Keldudalur	TP3	12-Aug-15	RSS	117	possible post pad - close up	N	4955
Keldudalur	TP3	12-Aug-15	RSS	117	possible post pad - close up	N	4956
Keldudalur	TP3	12-Aug-15	RSS	871	LNL tephra layer	E	4965
Keldudalur	TP3	12-Aug-15	RSS	871	LNL tephra layer	N	4966
Keldudalur	TP3	12-Aug-15	RSS	871	LNL tephra layer	W	4967
Keldudalur	TP3	12-Aug-15	RSS	871	LNL tephra layer	W	4968
Minni-Ás	TP1	29-Jul-15	KAC	101	pre excavation	n	1083
Minni-Ás	TP1	29-Jul-15	KAC	101	pre excavation	n	1084
Minni-Ás	TP1	29-Jul-15	KAC	101	pre excavation	nw	1085
Minni-Ás	TP1	29-Jul-15	KAC	102	top of 102	N	1086
Minni-Ás	TP1	29-Jul-15	KAC	102	top of 102	N	1087
Minni-Ás	TP1	29-Jul-15	KAC	102	top of 102	N	1088
Minni-Ás	TP1	29-Jul-15	KAC	102	top of 102	N	1089
Minni-Ás	TP1	29-Jul-15	KAC	102	top of 102	N	1090
Minni-Ás	TP1	29-Jul-15	KAC	102	top of 102	E	1091
Minni-Ás	TP1	29-Jul-15	KAC	102	middle of 102	N	1092
Minni-Ás	TP1	29-Jul-15	KAC	102	middle of 102	N	1093
Minni-Ás	TP1	29-Jul-15	KAC	102	middle of 102	N	1094
Minni-Ás	TP1	29-Jul-15	KAC	102	candid core dorks	N	1095
Minni-Ás	TP1	30-Jul-15	KAC	101	pre excavation	n	1096

FARM	EXCAVATION	DATE	ID	CONTEXT	DESCRIPTION	DIRECTION	IMAGE #
Minni-Ás	TP1	30-Jul-15	KAC	101	pre excavation	n	1097
Minni-Ás	TP1	30-Jul-15	KAC	101	pre excavation	n	1098
Minni-Ás	TP1	30-Jul-15	KAC	101	pre excavation	w	1099
Minni-Ás	TP1	30-Jul-15	KAC	101	pre excavation	n	1100
Minni-Ás	TP2	30-Jul-15	KAC	104	top of context 104	n	1101
Minni-Ás	TP2	30-Jul-15	KAC	104	top of context 104	n	1102
Minni-Ás	TP2	30-Jul-15	GMC	104	bottom of context 104	s	1103
Minni-Ás	TP2	30-Jul-15	GMC	104	bottom of context 104	s	1104
Minni-Ás	TP2	30-Jul-15	GMC	104	bottom of context 104	s	1105
Minni-Ás	TP2	30-Jul-15	KAC	106	top of 106	s	1106
Minni-Ás	TP2	30-Jul-15	KAC	106	top of 106	s	1107
Minni-Ás	TP2	30-Jul-15	KAC	106	top of 106	s	1108
Minni-Ás	TP2	30-Jul-15	KAC	106	bottom of 106, turf	s	1109
Minni-Ás	TP2	30-Jul-15	KAC	106	bottom of 106, turf	s	1110
Minni-Ás	TP2	31-Jul-15	AKC	107	Start ctx 107	N	1111
Minni-Ás	TP2	31-Jul-15	AKC	107	Start ctx 107	N	1112
Minni-Ás	TP2	31-Jul-15	AKC	107	Start ctx 107	N	1113
Minni-Ás	TP2	31-Jul-15	AKC	107	Start ctx 107	N	1114
Minni-Ás	TP2	31-Jul-15	AKC	107	Start ctx 107	N	1115
Minni-Ás	TP2	31-Jul-15	AKC	107	Start ctx 107	N	1116
Minni-Ás	TP2	31-Jul-15	AKC	107	Start ctx 107	N	1117
Minni-Ás	TP2	31-Jul-15	KAC	108	cxt 107 and 108	n	1119
Minni-Ás	TP2	31-Jul-15	KAC	108	cxt 107 and 108	n	1120
Minni-Ás	TP2	31-Jul-15	KAC	108	cxt 107 and 108	n	1121
Minni-Ás	TP2	31-Jul-15	KAC	108	cxt 107 and 108	n	1122
Minni-Ás	TP2	31-Jul-15	KAC	108	cxt 107 and 108	n	1123
Minni-Ás	TP2	31-Jul-15	KAC	108	candid	n	1124
Minni-Ás	TP2	31-Jul-15	AKC	109	Base cxt 109	N	1125
Minni-Ás	TP2	31-Jul-15	AKC	109	Base cxt 109	N	1126
Minni-Ás	TP2	31-Jul-15	AKC	109	Base cxt 109	N	1127
Minni-Ás	TP2	31-Jul-15	AKC	109	Base cxt 109	N	1128
Minni-Ás	TP2	31-Jul-15	AKC	109	Base cxt 109	N	1129
Minni-Ás	TP2	31-Jul-15	AKC	111	Top midden	N	1130
Minni-Ás	TP2	31-Jul-15	AKC	111	Top midden	N	1131
Minni-Ás	TP2	31-Jul-15	AKC	111	Top midden	N	1132
Minni-Ás	TP2	31-Jul-15	AKC	111	Top midden	N	1133
Minni-Ás	TP2	31-Jul-15	AKC	111	Top midden	N	1134
Minni-Ás	TP2	31-Jul-15	AKC	111	Top midden	N	1135
Minni-Ás	TP2	03-Aug-15	KAC	112	top of patchy h1	n	1138
Minni-Ás	TP2	03-Aug-15	KAC	112	top of patchy h1	n	1139
Minni-Ás	TP2	03-Aug-15	KAC	114	top dark midden	n	1142
Minni-Ás	TP2	03-Aug-15	KAC	114	top dark midden	n	1143
Minni-Ás	TP2	03-Aug-15	KAC	114	top dark midden	n	1144
Minni-Ás	TP2	03-Aug-15	KAC	114	top dark midden	n	1145
Minni-Ás	TP2	03-Aug-15	KAC	114	top h3	n	1150
Minni-Ás	TP2	03-Aug-15	KAC	114	top h3	n	1151
Minni-Ás	TP2	03-Aug-15	KAC	114	west wall	west	1154
Minni-Ás	TP2	03-Aug-15	KAC	114	west wall	w	1155
Minni-Ás	TP2	03-Aug-15	KAC	114	west wall	w	1156
Minni-Ás	TP2	03-Aug-15	KAC	114	west wall	w	1157

FARM	EXCAVATION	DATE	ID	CONTEXT	DESCRIPTION	DIRECTION	IMAGE #
Minni-Ás	TP2	03-Aug-15	KAC	114	west wall	w	1158
Minni-Ás	TP2	03-Aug-15	KAC	114	west wall	w	1159
Minni-Ás	TP2	03-Aug-15	KAC	114	west wall	w	1160
Minni-Ás	TP2	03-Aug-15	KAC	114	north wall	n	1161
Minni-Ás	TP2	03-Aug-15	KAC	114	north wall	n	1162
Minni-Ás	TP2	03-Aug-15	KAC	114	north wall	n	1163
Minni-Ás	TP2	03-Aug-15	KAC	114	north wall	n	1164
Minni-Ás	TP2	03-Aug-15	KAC	114	south wall	s	1165
Minni-Ás	TP2	03-Aug-15	KAC	114	south wall	s	1166
Minni-Ás	TP2	03-Aug-15	KAC	114	south wall	s	1167
Minni-Ás	TP2	03-Aug-15	KAC	114	south wall	s	1168
Minni-Ás	TP2	03-Aug-15	KAC	114	east wall	e	1169
Minni-Ás	TP2	03-Aug-15	KAC	114	east wall	e	1170
Minni-Ás	TP2	03-Aug-15	KAC	114	east wall	e	1171
Minni-Ás	TP2	03-Aug-15	KAC	114	east wall	e	1172
Minni-Ás	TP3	03-Aug-15	GMC	115	Charcoal pit top	N	1140
Minni-Ás	TP3	03-Aug-15	GMC	115	Charcoal pit top	N	1141
Minni-Ás	TP3	03-Aug-15	GMC	116	Top of 116	N	1146
Minni-Ás	TP3	03-Aug-15	GMC	117	top of context?	N	1148
Minni-Ás	TP3	03-Aug-15	GMC	117	top of context	N	1149
Minni-Ás	TP3	03-Aug-15	SNC	118	Top of 118	N	1152
Minni-Ás	TP3	03-Aug-15	SNC	118	Top of 118	N	1153
Minni-Ás	TP3	03-Aug-15	SNC	118	Bottom of 118	N	1173
Minni-Ás	TP3	03-Aug-15	SNC	118	Bottom of 118	N	1174
Minni-Ás	TP3	03-Aug-15	GMC	118	East wall	E	1175
Minni-Ás	TP3	03-Aug-15	GMC	118	East wall	E	1176
Minni-Ás	TP3	03-Aug-15	GMC	118	Bottom of 118	N	1177
Minni-Ás	TP3	04-Aug-15	GMC	118	west wall of TP 3	w	1178
Minni-Ás	TP3	04-Aug-15	GMC	118	west wall of TP 3	w	1179
Minni-Ás	TP3	04-Aug-15	GMC	118	north wall of TP 3	n	1180
Minni-Ás	TP3	04-Aug-15	GMC	118	north wall of TP 3	n	1181
Minni-Ás	TP3	04-Aug-15	GMC	118	north wall of TP 3	n	1182
Minni-Ás	TP3	04-Aug-15	GMC	118	south wall of TP 3	s	1183
Minni-Ás	TP3	04-Aug-15	GMC	118	south wall of TP 3	s	1184
Minni-Ás	TP3	04-Aug-15	GMC	118	east wall of TP 3	e	1185
Minni-Ás	TP3	04-Aug-15	GMC	118	east wall of TP 3	e	1186
Minni-Ás	TP3	04-Aug-15	GMC	118	east wall of TP 3	e	1187
Minni-Ás	TP4	04-Aug-15	KAC	TP4	profile	ne	1188
Minni-Ás	TP4	04-Aug-15	KAC	TP4	profile	ne	1189
Minni-Ás	TP4	04-Aug-15	KAC	TP4	profile	ne	1190
Minni-Ás	TP4	04-Aug-15	KAC	TP4	profile	ne	1191
Minni-Ás	TP4	04-Aug-15	KAC	TP4	profile	ne	1192
Minni-Ás	TP4	04-Aug-15	KAC	TP4	candid	ne	1193
Túnfótur	TP1	05-Aug-15	KAC	101	Pre ex	E	1203
Túnfótur	TP1	05-Aug-15	KAC	101	Pre ex	E	1204
Túnfótur	TP1	05-Aug-15	KAC	101	Pre ex	Ne	1205
Túnfótur	TP1	05-Aug-15	KAC	104	Turf burning pit thing?	E	1224
Túnfótur	TP1	05-Aug-15	KAC	104	Turf burning pit thing?	E	1225
Túnfótur	TP1	05-Aug-15	KAC	104	Turf burning pit thing?	E	1226
Túnfótur	TP1	05-Aug-15	KAC	104	End 103&104	E	1227

FARM	EXCAVATION	DATE	ID	CONTEXT	DESCRIPTION	DIRECTION	IMAGE #
Túnfótur	TP1	05-Aug-15	KAC	104	End 103&104	E	1228
Túnfótur	TP1	05-Aug-15	KAC	104	End 103&104	E	1229
Túnfótur	TP1	05-Aug-15	KAC	104	End 103&104	E	1230
Túnfótur	TP1	06-Aug-15	KAC	1104	1104	E	1231
Túnfótur	TP1	06-Aug-15	KAC	1104	1104	E	1232
Túnfótur	TP1	06-Aug-15	KAC	1104	1104	E	1233
Túnfótur	TP1	06-Aug-15	KAC	1104	1104	E	1234
Túnfótur	TP1	06-Aug-15	KAC	106	Mid cxt 106	Nw	1235
Túnfótur	TP1	06-Aug-15	KAC	106	Mid cxt 106	Nw	1236
Túnfótur	TP1	06-Aug-15	KAC	106	Mid cxt 106	Nw	1237
Túnfótur	TP1	06-Aug-15	KAC	106	Mid cxt 106	Nw	1238
Túnfótur	TP1	06-Aug-15	KAC	107	Top 106&107	N	1239
Túnfótur	TP1	06-Aug-15	KAC	107	Top 106&107	N	1240
Túnfótur	TP1	06-Aug-15	KAC	107	Top 106&107	N	1241
Túnfótur	TP1	06-Aug-15	KAC	107	Top 106&107	N	1242
Túnfótur	TP1	06-Aug-15	KAC	108	mid 106 & top 108	N	1243
Túnfótur	TP1	06-Aug-15	KAC	108	mid 106 & top 108	E	1244
Túnfótur	TP1	06-Aug-15	KAC	108	mid 106 & top 108	E	1245
Túnfótur	TP1	06-Aug-15	KAC	108	mid 106 & top 108	E	1246
Túnfótur	TP1	06-Aug-15	KAC	108	mid 106 & top 108	E	1247
Túnfótur	TP1	06-Aug-15	KAC	109	top 109	s	1248
Túnfótur	TP1	06-Aug-15	KAC	109	top 109	s	1249
Túnfótur	TP1	06-Aug-15	KAC	109	top 109	s	1250
Túnfótur	TP1	06-Aug-15	KAC	109	top 109	s	1251
Túnfótur	TP1	06-Aug-15	KAC	109	mid 109	w	1252
Túnfótur	TP1	06-Aug-15	KAC	109	mid 109	w	1253
Túnfótur	TP1	06-Aug-15	KAC	109	mid 109	w	1254
Túnfótur	TP1	06-Aug-15	KAC	109	mid 109	w	1255
Túnfótur	TP1	06-Aug-15	KAC	109	mid 109 posthole	s	1256
Túnfótur	TP1	06-Aug-15	KAC	109	mid 109 posthole	s	1257
Túnfótur	TP1	06-Aug-15	KAC	109	mid 109 posthole	s	1258
Túnfótur	TP1	06-Aug-15	KAC	109	mid 109 posthole	s	1259
Túnfótur	TP1	06-Aug-15	KAC	109	mid 109 posthole deeper	s	1260
Túnfótur	TP1	06-Aug-15	KAC	109	mid 109 posthole deeper	s	1261
Túnfótur	TP1	06-Aug-15	KAC	109	mid 109 posthole deeper	s	1262
Túnfótur	TP1	06-Aug-15	KAC	109	mid 109 posthole deeper	s	1263
Túnfótur	TP1	06-Aug-15	KAC	109	mid 109 posthole deeper	s	1264
Túnfótur	TP1	06-Aug-15	KAC	110	top 110	s	1265
Túnfótur	TP1	06-Aug-15	KAC	110	top 110	s	1266
Túnfótur	TP1	06-Aug-15	KAC	110	top 110	s	1267
Túnfótur	TP1	06-Aug-15	KAC	110	top 110	s	1268
Túnfótur	TP1	06-Aug-15	KAC	110	Mid 110 with cat	s	1269
Túnfótur	TP1	06-Aug-15	KAC	110	Mid 110 with cat	s	1270
Túnfótur	TP1	06-Aug-15	KAC	110	Mid 110	s	1271
Túnfótur	TP1	06-Aug-15	KAC	110	Mid 110	s	1272

FARM	EXCAVATION	DATE	ID	CONTEXT	DESCRIPTION	DIRECTION	IMAGE #
Túnfótur	TP1	06-Aug-15	KAC	110	Mid 110	s	1273
Túnfótur	TP1	06-Aug-15	KAC	110	Mid 110	s	1274
Túnfótur	TP1	06-Aug-15	KAC	110	Candid	s	1275
Túnfótur	TP1	07-Aug-15	KAC	111	Top context	S	1276
Túnfótur	TP1	07-Aug-15	KAC	111	Top context	S	1277
Túnfótur	TP1	07-Aug-15	KAC	111	Top context	E	1278
Túnfótur	TP1	07-Aug-15	KAC	111	Top context	E	1279
Túnfótur	TP1	07-Aug-15	KAC	111	Top context	E	1280
Túnfótur	TP1	07-Aug-15	KAC	111	Top context	E	1281
Túnfótur	TP1	07-Aug-15	KAC	111	Top context	E	1281
Túnfótur	TP1	07-Aug-15	KAC	111	Top context	S	1299
Túnfótur	TP1	07-Aug-15	KAC	111	Base context	S	1300
Túnfótur	TP1	07-Aug-15	KAC	111	Base context	S	1301
Túnfótur	TP1	07-Aug-15	KAC	111	South wall	S	1302
Túnfótur	TP1	07-Aug-15	KAC	111	South wall	S	1303
Túnfótur	TP1	07-Aug-15	KAC	111	Base context	N	1304
Túnfótur	TP1	07-Aug-15	KAC	111	Top context	N	1305
Túnfótur	TP1	07-Aug-15	KAC	111	Top context	N	1306
Túnfótur	TP1	07-Aug-15	KAC	111	Top context	N	1307
Túnfótur	TP1	12-Aug-15	KAC	TP1	profile	E	1307
Túnfótur	TP1	12-Aug-15	KAC	TP1	profile	E	1308
Túnfótur	TP1	12-Aug-15	KAC	TP1	profile	E	1309
Túnfótur	TP1	12-Aug-15	KAC	TP1	profile	E	1310
Túnfótur	TP1	12-Aug-15	KAC	TP1	profile	E	1311
Túnfótur	TP1	12-Aug-15	KAC	TP1	profile	E	1312
Túnfótur	TP1	12-Aug-15	KAC	TP1	profile	E	1313
Túnfótur	TP1	12-Aug-15	KAC	TP1	profile	E	1314
Túnfótur	TP1	12-Aug-15	KAC	TP1	profile	se	1315
Túnfótur	TP1	12-Aug-15	KAC	TP1	profile	ne	1316

Kite photos for photogrammetry

LOCATION	DATE	CAMERA	BASE	CONDITIONS	PHOTO RANGE	GCPS	NOTES
Keldudalur	07/21/2015	Ricoh GR	Flow Form 16	Windy	3404-3504; 3703-4082	GPS plates	Overview of farm mound
Ás	07/23/2015	Ricoh GR	Fled	Low wind, then rising	4243-4671	GPS plates	Overview of farm mound
Ás	07/27/2015	Ricoh GR	Flow Form 16	Windy, overcast	5424-6431	GPS plates	Overview of farm mound, includes long stationary sequence while dog chased horses.
Ás (Minni-Ás)	07/29/2015	Ricoh GR	Fled	Low wind, overcast	6875-7508	GPS plates	Overview
Hegranesþing	07/30/2015	Ricoh GR	Flow Form 16	Mostly sunny, winds high but dropping	7509-8407	GPS plates	Overview of Litli-Garður homefield area
Keldudalur (Járngerðarhóll)	08/03/2015	Ricoh GR	Fled	Mostly cloudy, mod. to low winds	8408-9206	GPS plates	Overview of (likely) iron-working site. Two flights in quick succession
Ás (Túnfótur)	08/13/2015	Ricoh GR	Flow Form 16	Windy, partly cloudy	9991-10723	GPS plates	Overview of walled field

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