

# Ingiríðarstaðir 2011. An Interim Statement



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(With contributions by Adolf Friðriksson and Jannie Amsgaard Ebsen)



FS493-08165  
Reykjavík 2012

Cover image – Graves at Ingiríðarstaðir 2011, facing north.

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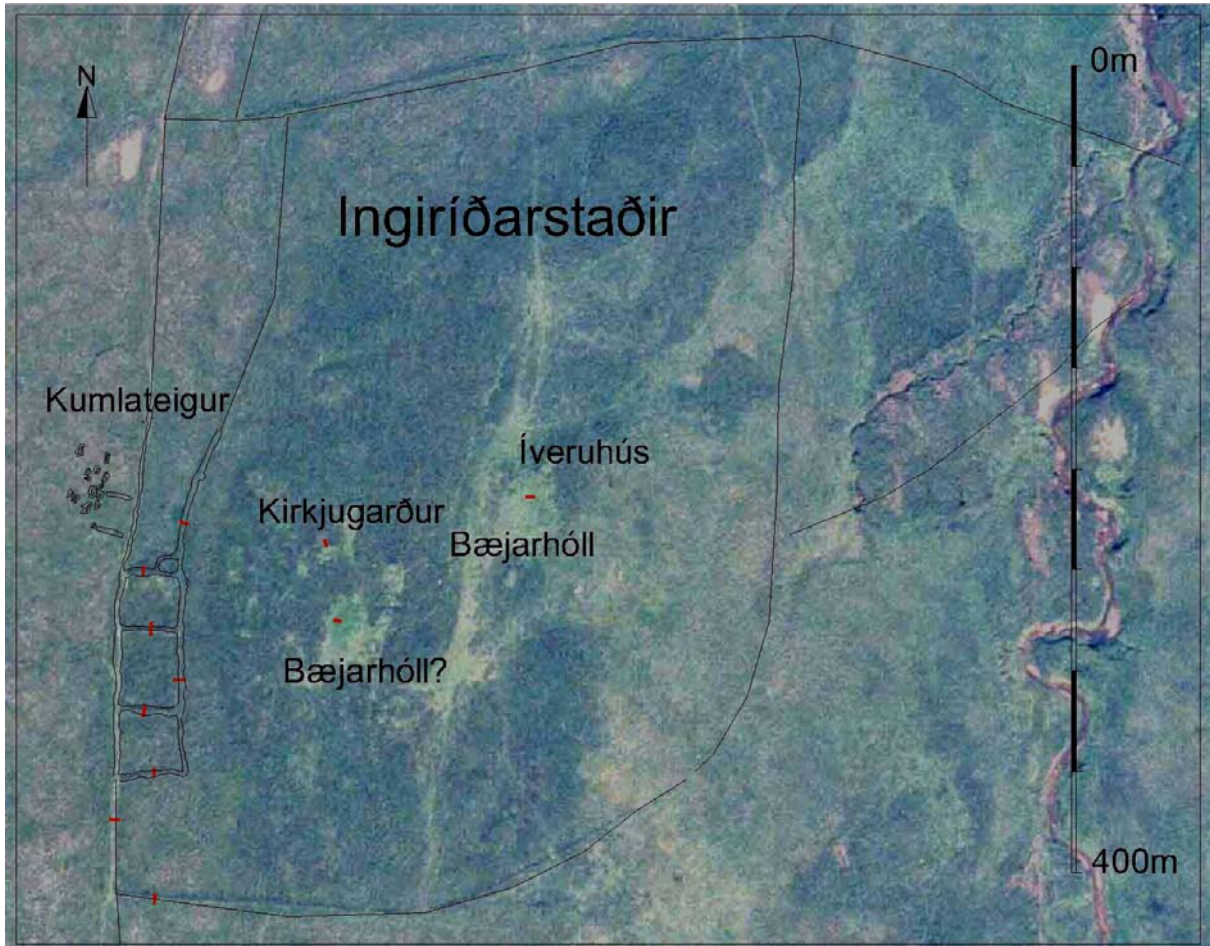
## CONTENTS

Introduction	1
Background	2
Summary	4
Aims and Objectives	6
Methods and Strategy	6
Results	9
Discussion	20
Samantekt	21
Kumlateigur á Ingiríðarstöðum á Þegjandadal (Adolf Friðriksson)	
Appendices	25
Appendix 1 – Context Register	25
Appendix 2 – Finds Register	30
Appendix 3 – Bone Register	32
Appendix 4 – Conservation Remarks (Jannie Amsgaard Ebsen)	37



# Ingiríðarstaðir 2011. An Interim Statement

## Introduction



*Figure 1 – The gravefield (kumlateigur) at Ingiríðarstaðir lies immediately to the west of an extensive collection of ruinous structures and boundaries forming the home field of an abandoned farm. The area is defined by well preserved turf built boundary walls and includes a churchyard (kirkjugarður), dwellings (Íveruhús) and two possible farm mounds (Bæjarhóll) amongst many further ruins thought likely to represent outhouses, barns, byres, storage facilities and so forth.*

Between the 27th of June and the 16th of July 2011 archaeologists from Fornleifastofnun Íslands carried out further excavations within the pre-christian grave field at Ingiríðarstaðir in Þegjandadalur. This work was done on behalf of Hið Þingeyska Fornleifafélag. The excavation was carried out by Howell Magnus Roberts, Lilja Björk Pálsdóttir, Óskar Gisli Sveinbjarnarsson, Céline Dupont-Hébert and Anna Hellgren. We are grateful for the kind help and assistance of Síf Jóhannesdóttir and the Fornleifaskóli Barnanna.



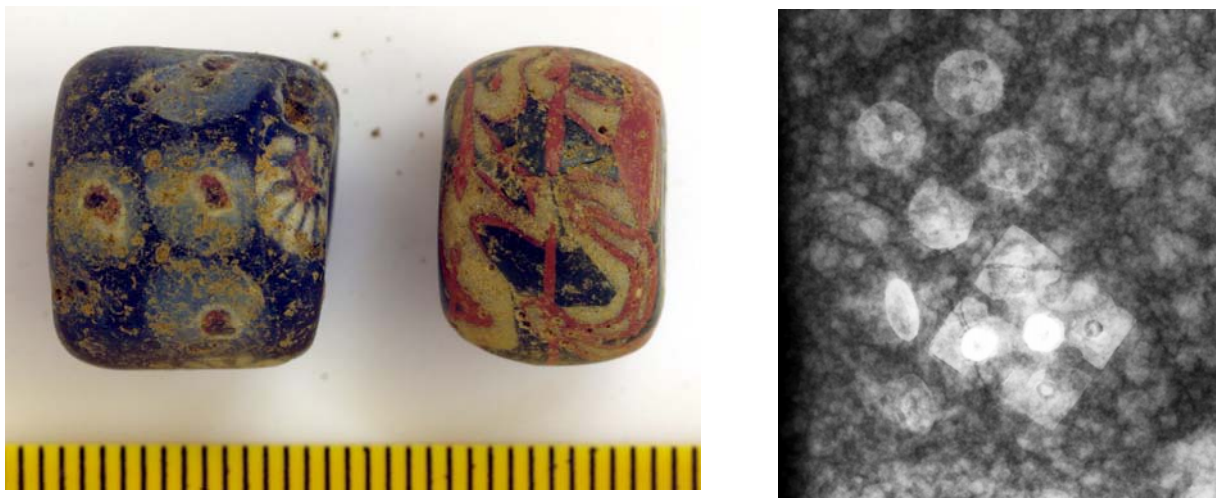
## Background

In 2008 a number of unusual features were noted to the west of the homefield at Ingiríðastaðir, and excavation revealed a horse grave and a human grave including several artefacts. This confirmed our suspicions that we had discovered a large pre-Christian grave field. Detailed modelling of the ground surface, and careful examination of aerial photographs suggested perhaps as many as 15 possible burials. If this is correct, Ingiríðarstaðir will be one of the largest known pre-Christian grave fields in Iceland.



*Figure 2 – Aerial photograph by Árni Einarsson. “1” and “2” mark graves excavated in 2008. Further similar features are visible to the left.*

In 2009 a further pair of graves were excavated – these proved to be a human burial and double horse burial. Although disturbed in antiquity, these graves were still rich in artefacts. The human grave produced 4 pieces of hacksilver, 2 ornate glass beads, and several delicately patterned buckles and strap ends of bronze. The double horse burial produced an exceptional artefact – a remarkably preserved horse harness and bridle bit, decorated with bronze studs and ornamented fittings.



*Figure 3 – Finds from 2009. Ornate beads (left) and x-ray of horse harness fitting (right)*

In 2010, three features we imagined to be further graves were investigated but these turned out to be something much more enigmatic than we had expected. Instead of typical burials, we discovered 3 large pits cut through an L-shaped turf wall. The turf wall contained elements of the settlement period tephra layer and was built upon a ground surface covered by the tephra. Two of the pits, at each end of the wall, proved to be empty of any artefacts but their shape and size suggest that they held large wooden posts – much larger than usually seen in icelandic buildings of this time. The central pit, cut through the wall, contained a very surprising find. At the base of pit was a collection of animal bone not unlike food remains, but on top of these bones were a cat jaw and a small human skull, beneath a pile of large stones. The human skull showed signs of injury by a blunt weapon at or about the time of death. Just west of the turf wall, right at its base, and below construction debris we also discovered the burial of a very young child.

## Summary

An area of 4 x 15m Area (11-S – see Figure 4) was opened adjacent and to the west of the 2010 excavation area. This trench covered two pairs of bumps on the surface, and rapidly proved to be as expected two pairs of human grave and horse grave.

The northern pair of human/horse graves had been disturbed in antiquity, and only a little bone survived. This included a human long bone, many horse teeth and some fragments of a horse skull. Beneath the horse skull we discovered the remains of an iron bridle/bit – much less ornate than that from 2009, but still a rare and precious find.

The human grave proved to be largely empty, and surprisingly shallow, but is very unusual in shape. At each corner there was a small post setting, joined to the corners of the grave, and aligned diagonally to the grave itself. These post settings included stone packing, and the voids between some of the stones suggest posts leaning at an angle. These features might represent some temporary structure over the grave, and similar features were also seen at Ingiríðarstaðir in 2009, and at Litlu Núpar 2007-2010. A row of stones around the northwestern corner of the horse grave also indicated some remnant of a structure, perhaps the base of a grave mound.

The southern pair of human/horse graves appeared as a more substantial surface feature – and excavation revealed the remains of a mound of turf and stone above/around the horse grave. Both these graves had also been disturbed in antiquity, but substantial amounts of bone survived in each. We recovered the majority of a horse skeleton, together with a probable iron buckle, and the human grave contained the larger and better preserved long bones, and two simple beads. At each corner of the human grave, but outside it, were large stone packed post holes. Four of these were circa 50cm deep and fully filled with small stones up to 10cm in size. A fifth, much shallower post hole was found between the two corner posts to the south of the human grave.

In addition to the two pairs of burials, we also investigated further the turf structure seen in 2010. Trenches (11-E1, 11-E3) targeting the walls of this structure confirm at least three sides of some kind of square enclosure measuring circa 20m x 25m, but with no evidence of



significant internal features or layers. A trench excavated in the middle of this enclosed area (11-E2) revealed no traces of any activity. The purpose of this structure within the grave field remains mysterious.

A further trench located some 25m north of the grave field examined another possible feature – a shallow dip in the ground on a high point beyond the grave field. This proved to be a further large post setting, very similar to those seen cutting through the turf wall in 2010, and lining up with them. This post must have been substantial, perhaps 25-30cm across, sunken into the ground about 50cm deep, and supported by additional side posts. The purpose of these posts remains unclear, but it seems most likely that they were some metres high and served somehow to mark out an area of importance. It is possible that something was suspended from these posts, perhaps a banner or flag – but this must remain as only speculation.

Several further probable burials remain at Ingiríðarstaðir, and each year of excavation brings new surprises and new evidence for the variety of burial practice even within one grave field.

## Aims and Objectives

Excavation and measured survey from 2008 to 2010 had identified an extensive pre-Christian burial field, together with an enigmatic turf structure, seemingly at the south eastern limit of the field. This work has highlighted a number of unusual features, not least the frequent presence of substantial post holes associated with the human graves. Our aims in 2011 were simply to continue this work, as part of our ongoing plan to complete open area excavation of the grave field. This work is expected to require several more years of field work at the current pace. The work is informed by and contributes to a growing corpus of recently excavated pre-Christian graves in the local region of Þingeyjarsýsla, North Eastern Iceland.

This regional group includes pre-Christian burials excavated by the author, by Adolf Friðriksson and by others at Litlu-Núpar, Lyngbrekka, Saltvík and elsewhere. It is our belief that appropriately applied modern excavation techniques are yielding new and qualitatively different evidence for the Icelandic pre-Christian burial rite.

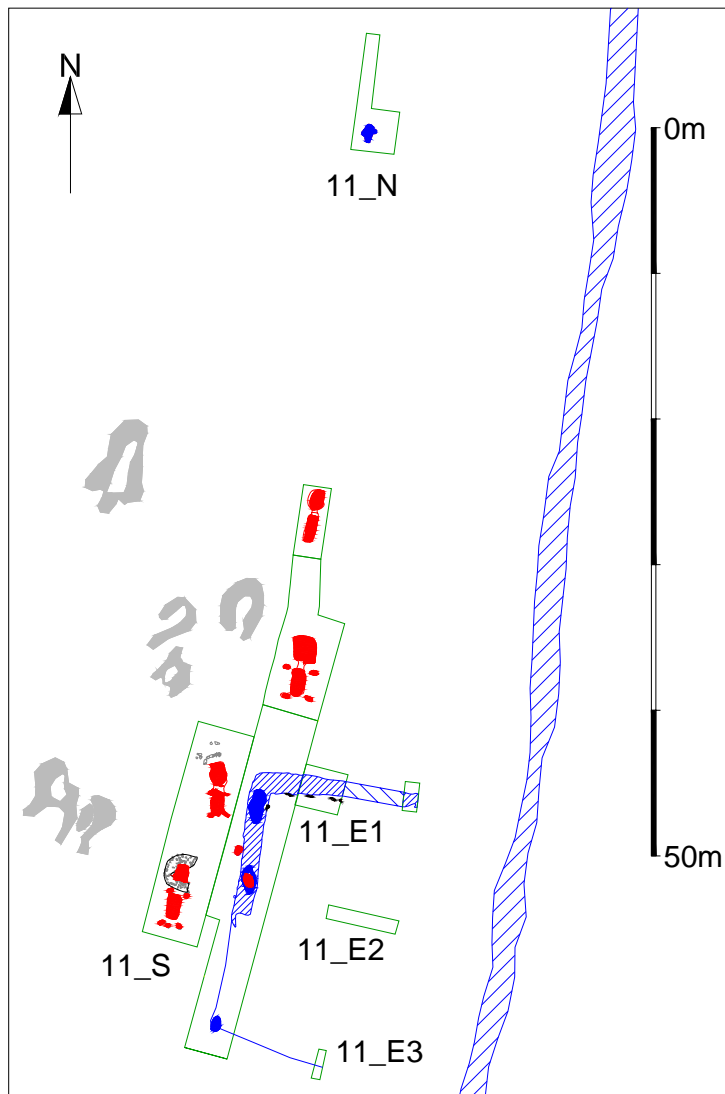
## Method and Strategy

The standard excavation methodology used by Fornleifastofnun Íslands is based upon the single context planning technique developed by the Dept. of Urban Archaeology of the Museum of London - and has been further developed and modified for Icelandic conditions by Fornleifastofnun Íslands. At Ingríðarstaðir, an emphasis has been placed on excavating sufficiently large areas to include any likely subsidiary features associated with the burials. This forms part of a strategy to excavate large contiguous area, and eventually to excavate the graveyard in its totality. Visible outlying features have also been addressed.

Each archaeological deposit or feature was planned at a scale of 1:20, and descriptions of each deposit or feature were maintained by means of a unique contextual numbering system and pro-forma recording sheets. This record was augmented with conventional and digital photography as appropriate. Artefacts were recovered by contextual unit and 3D location.

Additionally all bone recovered from the excavation area was also individually numbered, and planned at a scale of 1:20. It is hoped that this approach will build towards a new corpus of data that allows more detailed study of grave disturbance, and the taphonomic factors affecting bone survival.

**Area 11-S** encompasses two pairs of human/horse burials. It is adjacent to and a direct continuation of the excavation area examined in 2010. It is seen to contain graves of a similar nature, similar spacing and similar alignment to those investigated previously. Unexcavated features visible on the surface suggest that this distribution of burials will continue – at least to the north and west. The excavated area totalled 15 x 4m .



**Area 11-N** targeted a small but clearly anthropogenic hollow situated on a low rise or hillock some 50m north of Area 11S, and some 25m north of the northernmost burial known to date. This feature was seen to be aligned with features excavated in 2010, and was thought to possibly represent another burial, a possible outlier from the main focus of the burial field. The excavated area measured initially 3 x 3m, with a further 3 x1m extension added later, to the north.

**Figure 4 – Location of Excavation Areas.**

*(Red – Burials, Blue solid – pit, Grey solid – unexcavated burial?, blue hatching – turf wall)*

**Area 11-E1** continued our investigation of a turf built structure discovered in 2010, together with area immediately within and without that structure. In 2010 a neonatal was discovered immediately to the west of the turf built structure, and small post holes discovered close to the wall, within that structure. The excavated area measured 3 x 3m.

**Area 11-E2** was targeted to investigate small surface irregularities within the central portion of the area apparently bounded by the structure. The excavated area measured 5 x 1m.

**Area 11-E3** was targeted to investigate the apparent southern limit of that structure. The excavated area measured 2 x 0.5m.

Results

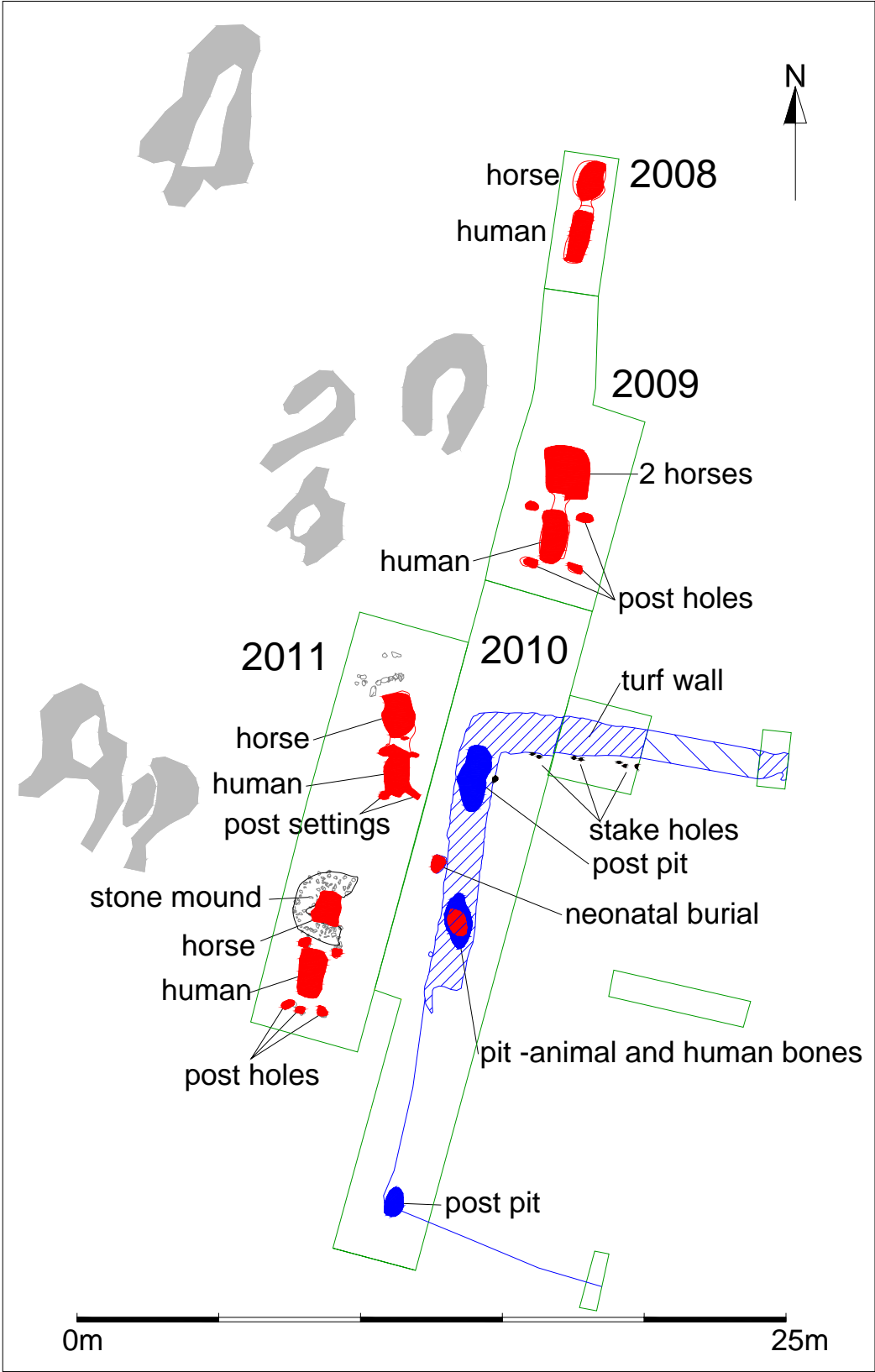


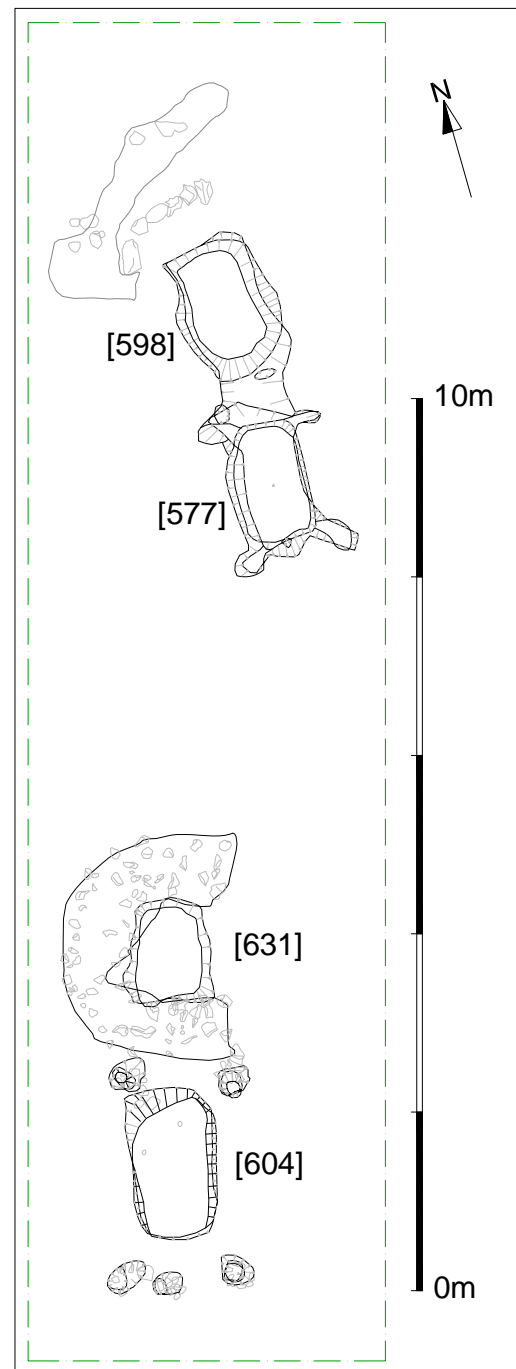
Figure 5 – Excavation areas by year, and summary results.



**Figure 6 – Area 11S. Excavated burials and associated features.**

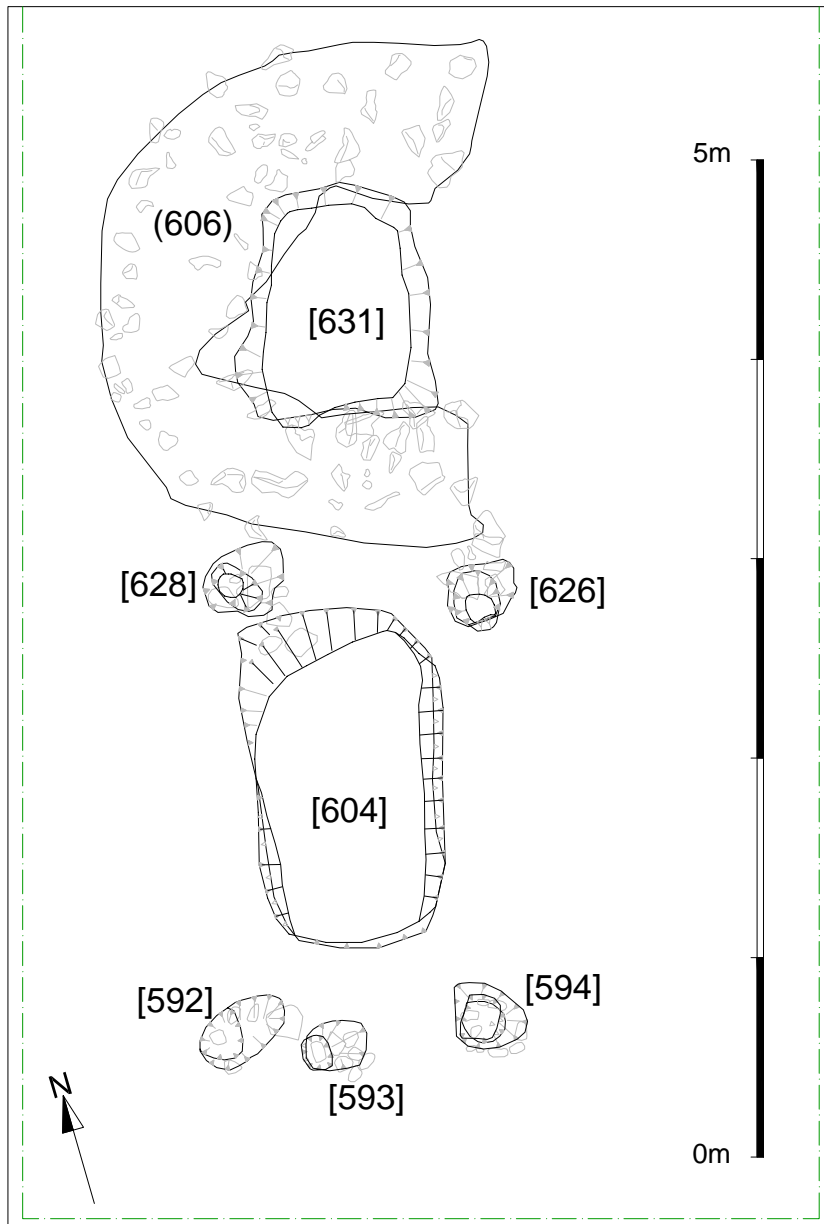
### **Area 11-S**

Prior to excavation, four large “bumps” or mounds with hollows at their centres could be observed on the surface. An area of 15x 4m was marked out, extending beyond the visible remains in all directions, and adjoining the area previously excavated (to the east) in 2010. After the removal of turf and organic overburden, these features became more clearly defined. Each of the four features was seen to be overlain by a thick layer of coarse dark grey tephra wholly consistent with the 1477 event recorded elsewhere at Ingiríðarstaðir.



Removal of the 1477 deposit revealed also patchy discontinuous remnants of a finer, slightly blue grey tephra, believed to date from circa 1300. Once this deposit had been removed, along with several varied and slightly mixed aeolian and/or colluvial layers, deposits that were clearly anthropogenic in nature became apparent, chiefly located within the features illustrated in Figure 6. These deposits comprised highly mixed and mottled layers derived from the varying underlying natural layers, but also including fragments of turf and are interpreted as the filling of negative features or as upcast. As excavation proceeded, the limits

of four large negative features cut through the natural ground surface were identified (Features 577, 598, 604 and 631), along with associated upstanding remains.



*Figure 7 – Southern grave pair, Features 631 and 604 with associated postholes 592, 593, 594, 626, 628 and stone/turf mound 606.*

**Feature 604** - (Dimensions L 1.72m x W 0.95m x D 0.52m)

This feature is sub-rectangular with curved corners, and steep, slightly undercut sides. Upon excavation it was found to contain a small number of human bones, chiefly long bones, in a moderate to poor state of preservation.

Two glass beads and a few small iron objects were also recovered from this feature.

It is interpreted as a human grave, but had clearly been disturbed in antiquity.

**Feature 631** - (Dimensions L 1.14m x W 0.90m x D 0.71m)

This feature is sub-rectangular with curved corner and steep sides. Excavation revealed a large quantity of horse bones – seemingly the greater part of the complete skeleton. The upper bones recovered had clearly been disturbed in antiquity but some of the lower elements remained articulated and presumable in situ. Bone preservation was good to excellent.

Ten indeterminate and corroded iron objects were recovered from the fills of this feature (deposits 621 and 630). It is interpreted as a horse grave, associated with human grave [604], and had also been disturbed in antiquity, but to a lesser extent.

Five stone filled post settings were discovered around the human grave [604].

Their dimensions are as follows;

[626] - L 0.40m x W 0.35m x D 0.50m

[628] - L 0.45m x W 0.35m x D 0.48m

[592] - L 0.48 x W 0.28m x D 0.57m

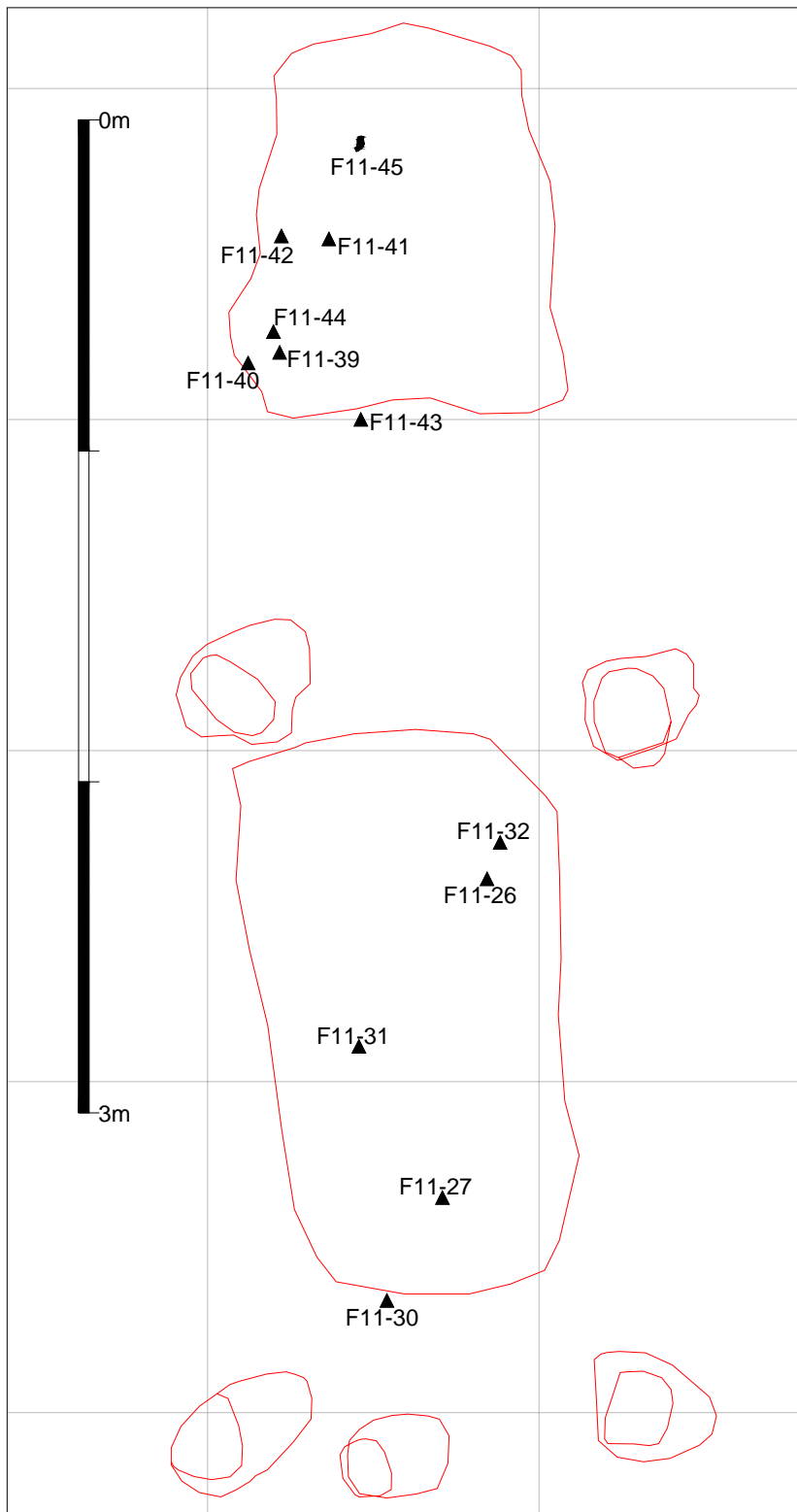
[593] - L 0.34m x W 0.24m x D 0.25m

[594] - L 0.41 x W 0.32m x D 0.52m

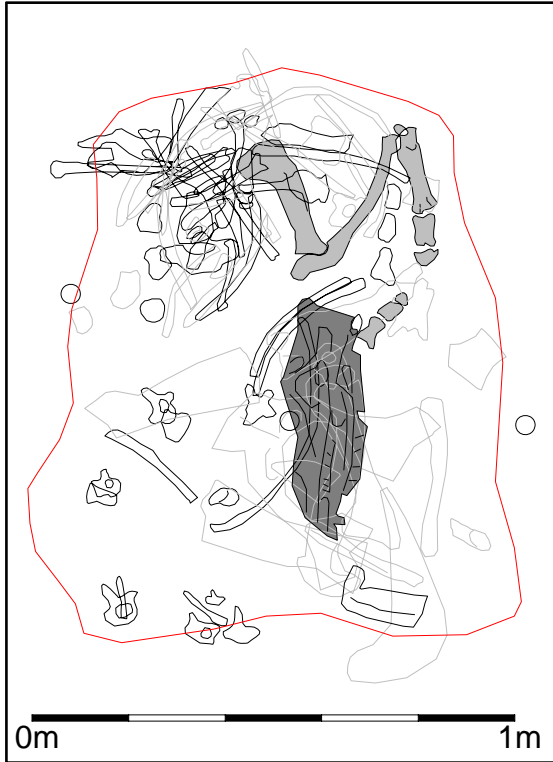
Of these, Feature 593 is anomalous, being much shallower than the others, and not located at a corner. The other 4 post settings all measure circa 0.50m in depth and were filled with large quantities of small sub-angular stone. Where the alignment of axis of these posts diverges from the vertical (especially [626]) it is difficult to reconcile this with a structure than utilises these post settings together. It is thought that the recorded alignments are indicative of the disuse and or removal of the elements rather than their intended use or function.

**Structure (606)** – (Dimensions H 0.24m x Max W 0.85m x Diam. circa 2.50m)

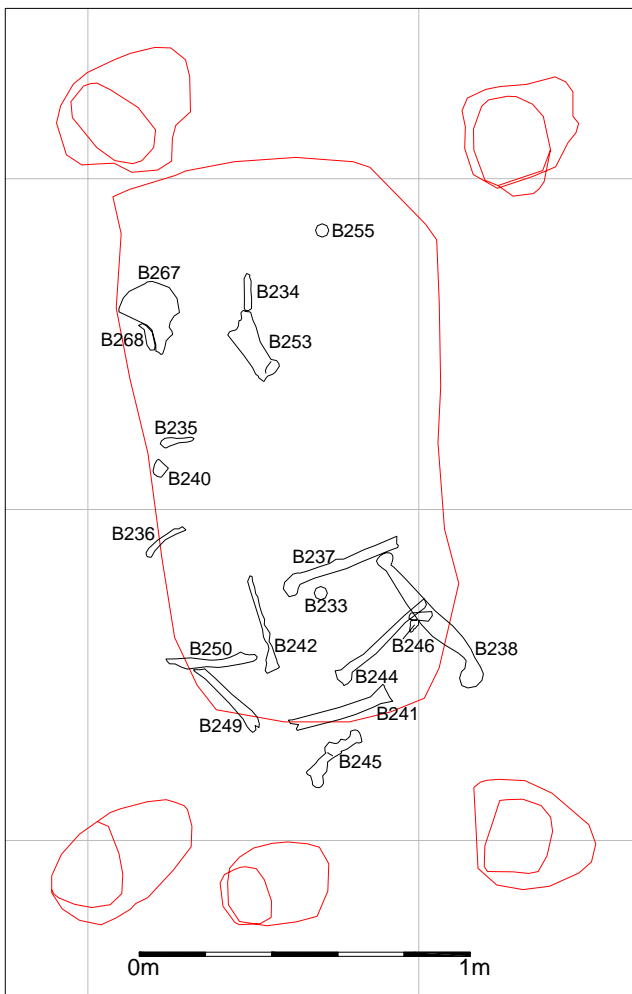
Surrounding three sides of Feature [631] was a low mound of turf fragments, gritty soil and frequent angular stone (each up to 0.20m in largest dimension. This structure is thought to have originally covered and surrounded all of the grave. At it centre, this structure had been truncated by disturbance in antiquity.



*Figure 8 - Finds distribution, features [631] and [604]*

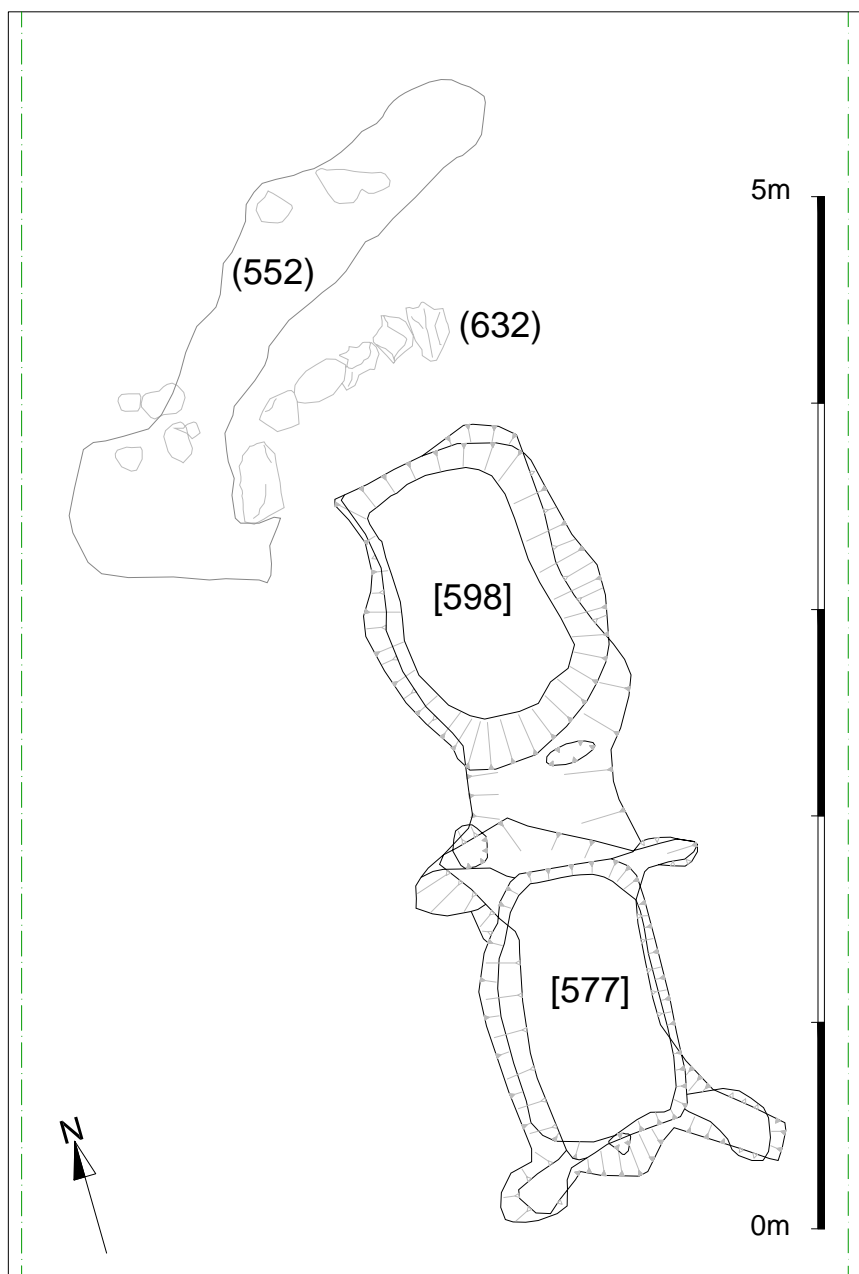


**Figure 9 – Horse bone from feature [631]**  
*The skull (dark grey fill) was uppermost. The articulated leg (pale grey fill) was at the base of the feature.*



**Figure 10 – Bone from feature [604].**  
*The southern cluster are largely human long bones.*





*Figure 11 – Features [598] and [577], together with possible traces of a structure (deposits (552) and (632)).*

**Feature 577** – (Dimensions L 1.40m x W 0.65m x D 0.61m)

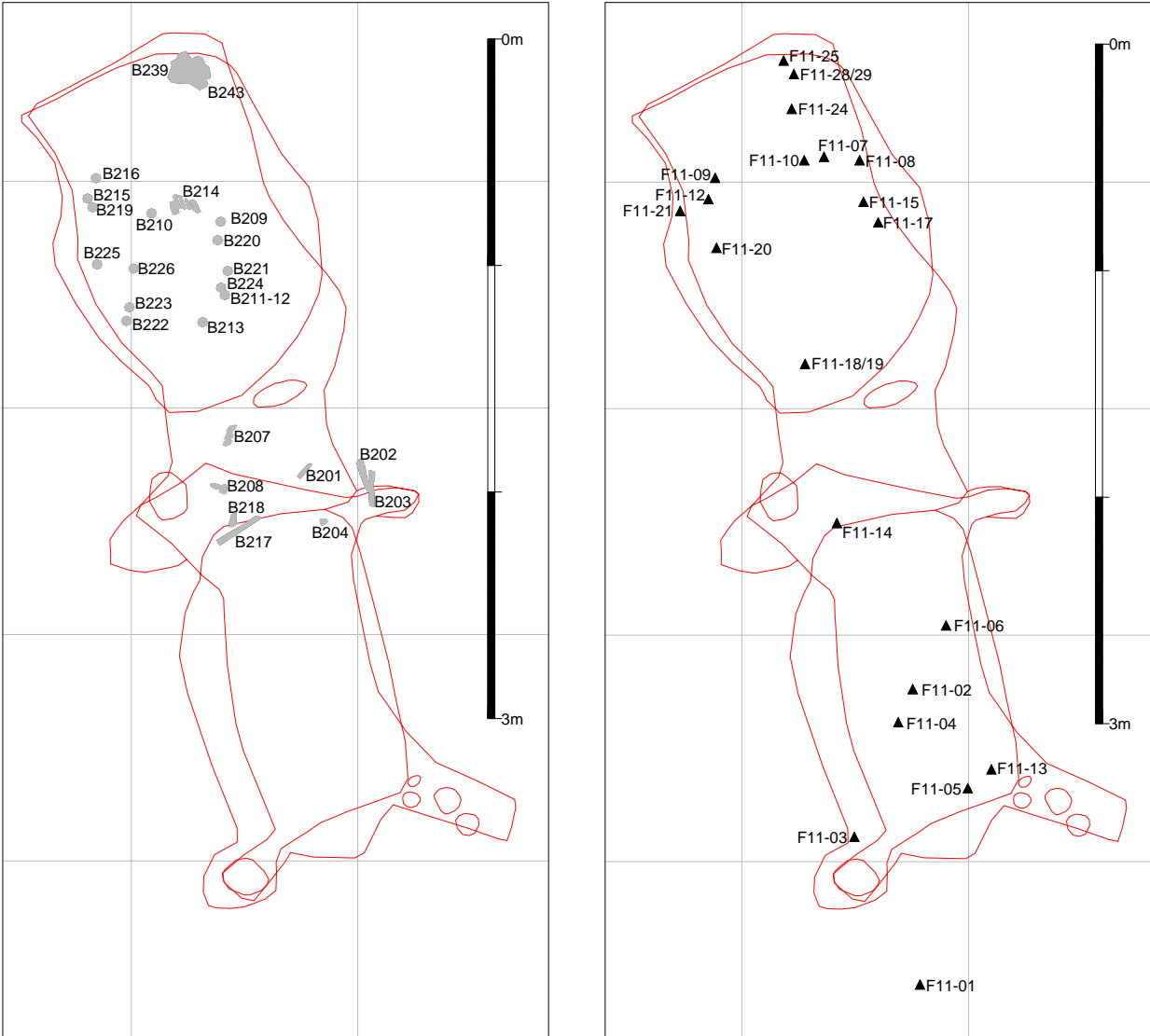
Feature 577 is unusual in shape, being primarily subrectangular, but have seemingly diagonal post settings adjoined at each corner. These included apparently multiple small post pipes and some post packing. A few disturbed bones were discovered at the northern limit of this feature, and a small number of finds, chiefly indeterminate iron fragments from throughout the fill.

Feature 577 had been disturbed in antiquity. The small size of this feature, the apparent lack of bone, and the unusual corner post settings all give some cause for caution. Given its

location and association with other features, it is interpreted as a human grave, perhaps that of a juvenile, but differential interpretations may be considered.

**Feature 598** – (Dimensions L 1.55m x W 0.90m x D 0.90m)

Feature 598 is sub-rectangular in form with curved corners and steep undercutting edges. It contained a small quantity of animal bone – primarily loose horse teeth, but also some fragments of a horse skull at its northern limit. A small number of iron artefacts were recovered, chiefly corroded iron nails and fragments, but also parts of a horse’s bridle/bit (F11-25, 28, 29) found in association with the skull fragments.



*Figure 12 – Bone distribution for [598] and [577](left), and Finds (right)*



*Figure 13 – F11-25, bridle bit, in situ*

## **Area 11-N**

Area 11-N targeted a small hollow at the crest of a low rise, some 30m north of the grave field. Prior to excavation it was thought this feature may represent an additional grave.

This proved not to be the case, but a substantial post setting was discovered, not unlike those observed in 2010.



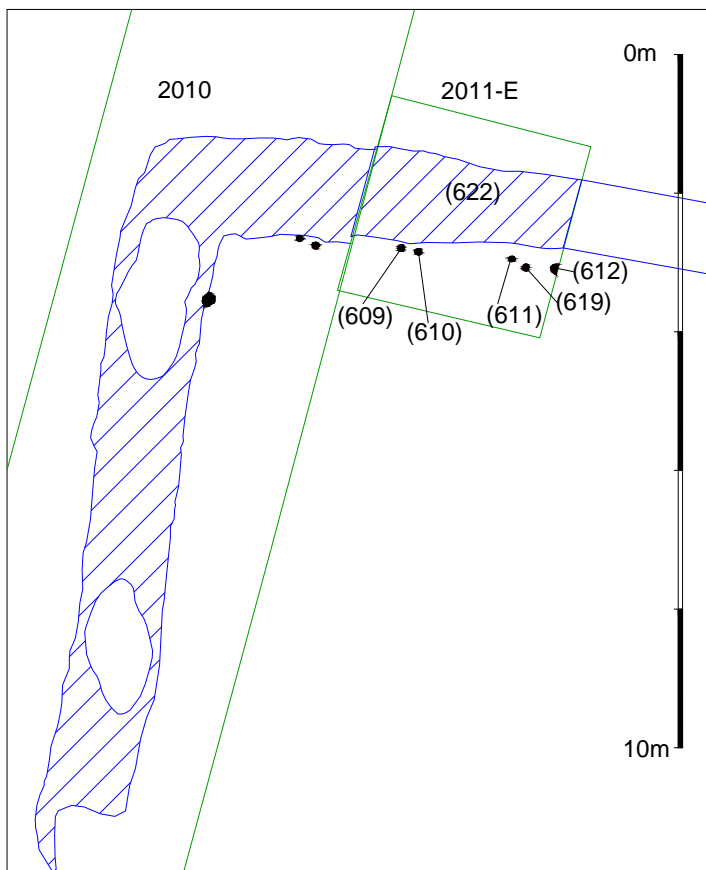
*Figure 14 – Feature [542]*

Feaure 542 measured in total some 1.2m in length (north-south) and up to 0.80m in width. Its deepest point was 0.59m below the ground surface. The shape of the feature is complex. To the centre north is a sub-square cut circa 30cm wide at its base,. To the south and to the northeast are smaller shallow cuts.

This feature is interpreted as a large post setting – the primary timber being up to 30cm across, with two subsidiary supporting members to the northeast and to the south. This feature is also seen to be aligned with the substantial post pits discovered in 2010 (see figure 4).

The function of such a substantial post remains a matter of speculation – it might possibly be part of a series of posts demarcating the burial area.

### Area 11-E1



*Figure 15 – Area 11-E1*

Area E1 continued our investigation of an L-shaped turf wall structure discovered in 2010.

As before, turf wall 622 was comprised of up to 3 courses of strengur turf, including elements of the Landnám sequence. This turf had clearly been cut from beyond the wall to the north, where the natural ground surface was truncated to a depth of up to 30cms. Wall (622) sat upon a thin deposit

of aeolian silt, which in turn sat upon the same Landnám sequence tephras as observed in the wall turf.

Five small shallow stakeholes (609, 610, 611, 619, 6129) were discovered just within the turf wall. It is thought they may represent the supports of perhaps a light fence.

## Area 11-E2

Trench E2 examined apparent anomalies in the centre of the area bounded by turf wall (622). This trench proceeded to natural deposits at a depth of circa 0.20m with no evidence of any anthropogenic activity.

## Area 11-E3



*Figure 16 – Area 11-E3. West facing section. Scale 2m*

Excavation of this trench targeted the apparent southern boundary of the area enclosed by the turf wall. Results were ambiguous. The natural ground surface does appear to have been truncated where expected, to the south (right in Figure 16), but this *could* have been as a result of erosion rather than human agency. Small quantities of upcast material at the highest part of the section (irregular white waves centre left in Figure 16), may however represent the poorly preserved remains of deliberate construction. These remains are interpreted as a cut for construction with the last eroded traces of a turf wall, although uncertainty on this point is conceded.



## Discussion

This reports present only the interim results of an ongoing project.

Detailed analysis of the finds and osteological material continues. At the time of writing, funding has already been secured for continued research and excavation at Ingiríðarstaðir in 2012. Further discussion of these discoveries and their ultimate significance awaits the completion of excavation at the site, along with completed analyses of the complete artefactual assemblage, and the human and animal bone assemblages.

Presented below are Appendices containing the registers of the 2011 excavation. These are presented in good faith at the current date, but we reserve the right to reconsider aspects of this record as the project progresses.

# Samantekt - Kumlateigur á Ingiríðarstöðum á Þegjandadal

Adolf Friðriksson

Árið 2008 leiddi Howell M. Roberts leiðangur fornleifafraeðinga til rannsókna á bæjarhúsum, kirkjuminjum og garðleifum á eyðibýlinu Ingiríðarstöðum á Þegjandadal í S-Þingeyjarsýslu. Bærinn stendur í vesturhlíð dalsins og þótt langt sé um liðið frá því byggð þar lagðist af sjást enn glögglega leifar bæjarins og mannvirkja þar í kring. Veitti Howell því athygli að utan við vallargirðinguna, sem umlykur minjarnar vottaði fyrir reglulegum holum eða gryfjum. Er þessi staður rúmum 100 m vestan við bæjarstæði Ingiríðarstaða. Þar er landið þakið lyngi og afar þýft. Holurnar minntu óneintanlega á kuml sem fundist hafa m.a. við Litlu-Núpa í Aðaldal, Lyngbrekku í Reykjadal og Saltvík í Reykjahverfi. Milli holanna og vallargarðs liggur gamla reiðleiðin út dalinn, og má enn sjá allmarga paldra hlið við hlið, sem mynda nokkuð beina línu frá norðri til suðurs. Við prufugróft kom í ljós að þar reyndist vera greftrunarstaður frá heiðni og hafa rannsóknir verið gerðar þar á hverju ári síðan.

Uppgrefti á kumlateignum er ekki lokið, en hér verða helstu niðurstöður raktar. Fylgt er reglu Kristjáns Eldjárns og kumlum gefin númer í þeirri röð sem þau finnast, „kuml 1“, kuml 2“, o.s.v.fr. Grafir með hrossum eru taldar til haugfjár, nema þær verði ekki heimfærðar á mannsgröf. Vísað er í myndir í megintexta skýrslunnar. Um rannsóknir 2008-2010 hefur verið fjallað áður og því fljótt farið yfir sögu uns kemur að uppgrefti síðasta árs, þ.e. sumarið 2011.

Áður en uppgroftur hófst var svæðið mælt upp og kortlagt. Af sýnilegum ummerkjum á yfirborði að dæma virðist þar vera grafreitir, um 50-70 m á lengdina (N-S) og 30-40 m á breidd (A-V). Rannsóknin hófst á nyrðri enda svæðisins (sjá „Fig. 1“).

## *Kuml 1.*

Fyrsta kumlið er fannst var mannskuml, hrossgröf norðan þess en mjótt haft á milli. Yfir gröfunum lá 1477 gjóska óhreyfð, en báðar grafirnar hafa verið raskaðar einhverntíma milli greftrunar og löngu áður en gjóskan féll. Þrátt fyrir rask fundust beinaleifar manns, líklega karls, um 35 ára eða eldri er hann lést. Hrossið var 5-6 ára þegar það var fellt og lagt í gröf, en engin merki um slátrun þess var hægt að greina á beinum þess. Athyglisvert er að í gröfunum var enn dýrmætt haugfé að finna. Í mannsgröfinni fundust smámunir í litlum vöndli lítið blýmet og silfurþynna sem hugsanlega hafa verið í leðurþyngju við belti. Í hrossgröfinni voru enn leifar af skrauti af reiðtygjum, þ.e.a.s. beit, bronsþynnum með upphleyptu skrauti.

## *Kuml 2.*

Árið 2009 fundust 2 grafir 6 m sunnan við kuml 1. Var þar eitt mannskuml og hrossgröf með tveimur hrossum í. Yfir báðum gröfum lá gjóskulag frá 1300 óhreyft, en þeim hafði sýnilega verið raskað áður. Með hliðum mannsgrafarinnar lá röð af járnnöglum og er líklegt að hinn látni hafi verið lagður í kistu. Í gröfinni voru nokkur bein úr fullorðnum manni, en kyn og aldur bíður greiningar. Í kumlinu voru enn töluverðar haugfjárleifar: þrjú brot úr armböndum úr silfri, tvö brot úr silfurpeningum og eitt ógreinilegt silfurbrot, tvær stórar og skreyttar sörvistölur, skreytt beltissylgja úr koparblendingi, beltissproti með skrauti og áföstum slitrum úr leðri og ókennileg járnbrot.

Við hvert horn grafarinnar var um 40 sm djúp hola, og sýnir að fjórar stoðir hafi verið reistar við gröfina.

Austan megin í hrossgröfinni lá hestur en vestanmegin voru einungis leifar af framhluta hests. Líklega hefur þar upphaflega verið einnig lagður heill hestur í gröfina, en rask og slæm varðveisluskilyrði geta hafa spillt staðnum. Á milli hrossanna hafði verið lagt tré eða planki einhverskonar. Með hrossinu austan plankans voru heilleg beisli og reiðtygi skreytt með fjöldanum öllum af af litlum málmþynnum með upphleyptu skrauti (beit) úr bronsi sem fest hefur verið á reiðver hestanna.

Árið 2010 var uppgraftarsvæðið stækkað enn til suðurs. Rannsóknin leiddi í ljós mannvistarleifar sem erfitt er að skýra til fulls. Í stað þess að finna grafir með hefðbundnu lagi (þ.e. aflangar holur sem rúma líkamsleifar manns eða hests) komu í ljós þrjár stórir pyttir, sem grafnir höfðu verið í gegnum ævaforan torfvegg. Veggurinn var úr torfi sem geymdi leifar landnámslagsins og sat jafnframt á lagi frá sama tíma. Tveir pyttanna við hvorn enda voru tómir, en líklegt er að þeir hafi verið stoðarholur, að vísu fyrir óvenju stórar stoðir. Í miðholunni var óvæntur fundur. Í botni hennar var safn af dýrabeinum, sem minnti helst á úrgang, en ofan á þeim var kjálki úr ketti og lítil hauskúpa úr manni. Lágu mannshöfuðið og kattarkjálkinn á milli steinahrúgu og dýrabeinahrúgu. Athyglisvert er að sjá mátti að höfuðkúpan var vopnbitin, og hafði sá áverki væntanlega verið gefinn skömmu áður en maðurinn gaf upp öndina enda sárið í beininu ógróið. Vestan við vegginn, fast við aurmál hans, og undir lagi sem myndast hefur við húsagerðina, var lítil gröf með beinum ungabarns.

Ekki er fullvíst að öll þessi ummerki tilheyri kumlateignum. Þau kunna að vera yngri, og má vera að höfuðkúpan hafi komið úr kumli sem raskast hafi við mannvirkjagerðina. Ekki skal

útilokað að svon hafi þetta átt að vera; á kumlateig hafi risið bygging og hún helguð með sérstöku móti eða holur og bein verið liður í hlutverki hennar á grafreitnum.

Skal nú vikið að árangri rannsókna síðasta árs. Var fyrirkomulag hið sama og fyrri ár, þ.e. rannsóknirnar eru samstarfsverkefni Hins þingeykska fornleifafélags og Fornleifastofnunar Íslands og er verkið unnið í nokkrum áföngum. Dagana 27. júní til 16. júlí 2011 var rannsóknum á teignum haldið áfram og rannsóknarhópin skipuðu Lilja Björk Pálsdóttir, Óskar Gisli Sveinbjarnarsson, Céline Dupont-Hébert, Anna Hellgren og Howell Magnus Roberts sem var leiðangursstjóri.

Árið 2011 var rannsakað svæði vestan við kynlegu byggingaleifarnar sem fundust 2010 (sjá Fig. 4., 5., 6). Þar fundust enn kuml, 6m SV við suðurenda mannsgrafarinnar í kumli 2.

#### *Kuml 3. (Fig. 11, 12,13)*

Í kumli 3 voru tvær grafir, með breiðu hafti á milli. Báðar grafirnar höfðu verið raskaðar. Á yfirborði var að sjá eins og 2 þústir með dæld í kalli. Þegar yfirborðslög voru fjarlægð kom í ljós að gjóskulagið 1477 lá óraskað yfir þústunum sem og slitur af 1300 gjóskulaginu. Þar undir komu í ljós mjög blönduð mold og sáust þar brúnir tveggja grafa. Báðar grafirnar eru aflangar, og snúa því sem næst frá NV til SA. Syðri gröfin er 1.40m löng, 0.65m breið og 0.61m djúp. Í fyllingunni var hrafl af mannabeinum og fáein járnbröt. Við hvert grafarhorn voru stoðarholur og í þeim voru stoðarsteinar og holrými, væntanlega eftir viðinn. Virðist sem stoðirnar hafi verið látnar standa á ská yfir gröfina.

Nyrðri gröfin var 1.55m löng, 0.90m breið og 0.90m djúp. Í henni fundust fáein hrossbein, einkum tennur og leifar af höfuðkúpu úr hrossi. Þar voru heilleg kjaftamél úr járn, nokkrir járnaglar og bröt. Röð af smærri steinum lágu í boga með norðvesturhorni hrossgrafarinnar. Gæti þar verið um að ræða botn eða brún haugs sem hefur verið yfir gröfinni, en blásið burtu síðar.

#### *Kuml 4. (Fig. 7)*

Um 3 m SSV við kuml 3 voru enn tvær grafir, báðar raskaðar í fornöld og öll ummerki á sama vegi og yfir kumli 3.

Syðri gröfin var 1.72m löng, 0.95m breið og 0.52m djúp. Í henni fundust fáein bein úr manni, 2 sörvistölur úr gleri, og fáein járnbröt. Við horn grafarinnar voru allt að 35-40 sm breiðar og 50 sm djúpar stoðarholur, 2 norðan megin og 3 sunnan megin. Voru þær nær fylltar með smáum ávölum steinum.

Nyrðri gröfin var 1.14m löng, 90m breið og 0.71m djúp. Í henni var mikið af hrossbeinum, nær heilt hross og fáein járnbrott. Við vesturhlíð þessarar grafar var bunga af mold og grjóti, sýnilega leifar af lágum haug sem hafði verið rofinn og líklega skemmst við uppblástur síðar.

#### *Niðurstöður.*

Árið 2011 fundust enn kuml á grafreitnum við Ingiríðarstaði á Þegjandadal. Nú hafa fundist þar 10 grafir og pyttir með beinum manna og/eða dýra. Fjórar grafanna (kuml 1-4) eru mjög líklega mannsgrafir og hefur hverri gröf fylgt hrossgröf. Við þrjár grafanna er umbúnaður sem ekki var þekktur hér á landi fyrr en rannsóknir hófust á kumlum í S-Þingeyjarsýslu á síðustu árum: stoðir hafa verið reistar utan við grafirnar og líklega e.k. mannvirki reist ofan á þeim. Gerð þeirra eða tilgangur er óþekktur. Grafirnar sem fundust sumarið 2011 sverja sig mjög í ætt við þau kuml sem þegar hafa fundist norðar á teignum.

Enn eru ekki öll kurl komin til grafar. Vestan og norðan kumlanna sem þegar hafa verið rannsökuð eru þústir með dældum og minna mjög á þá staði sem reyndust vera kuml. Í næstu áföngum verða þessi ummerki könnuð nánar og leitast við að ná heildarsvip greftrunarstaðarins, lögun hans og fjölda grafa, ásamt leifum af haugfé, raski og mannvirkjaleifum.

## Appendix 1 – Context Register

Unit	Area	Type	Group	Description	Date	ID
519	N	Deposit	543	Tephra 1477 (+1300?)	28/06/2011	LBP
520	S	Deposit		Tephra 1477	28/06/2011	ÓGS
521	N	Deposit	543	Mixed Aeolian fill of hollow	28/06/2011	LBP
522	N	Deposit	543	Upcast	28/06/2011	LBP
523	N	Deposit	543	Mixed Aeolian fill of hollow	28/06/2011	LBP
524	S	Deposit		Mixed, colluvium?	28/06/2011	ÓGS
525	N	Deposit	543	Mixed turf/aeolian	28/06/2011	LBP
526	S	Deposit	550	Upper fill of grave	29/06/2011	ÓGS
527	S	Deposit	566	Upper fill of grave	29/06/2011	ÓGS
528	N	Deposit		Mixed upcast	29/06/2011	LBP
529	S	Deposit	566	Fill of grave	29/06/2011	ÓGS
530	S	Deposit	550	Mixed turfy upcast	29/06/2011	HMR
531	N	Deposit		Upper fill of post setting	30/06/2011	LBP
532	S	Deposit		Mixed turfy upcast	30/06/2011	ÓGS
533	N	Deposit		Turf mix	30/06/2011	HMR
534	S	Deposit	550	Mixed fill between grave cuts	30/06/2011	HMR
535	S	Deposit		Mixed turfy upcast	30/06/2011	ÓGS
536	N	Deposit		Fill of post hole	30/06/2011	LBP
537	S	Deposit	566	Gravelly fill	30/06/2011	ÓGS
538	N	Deposit	543	Fill in posthole	30/06/2011	LBP
539	S	Deposit	566	Gravelly fill	01/07/2011	ÓGS
540	S	Deposit		Mixed upcast/overburden	01/07/2011	HMR
541	S	Deposit		Mixed upcast/overburden	01/07/2011	ÓGS
542	N	Cut		Complex cut for post setting	01/07/2011	LBP
543	N	Group		Group including [542] etc	01/07/2011	LBP
544	S	Deposit	550	Grave fill	01/07/2011	HMR
545	S	Deposit	566	Turfy silt fill of grave	01/07/2011	CDH
546	S	Deposit	566	Fill at north of grave	01/07/2011	CDH

Unit	Area	Type	Group	Description	Date	ID
547	S	Deposit		Mixed, colluvium?	01/07/2011	ÓGS
548	S	Deposit	550	Turf block in grave fill	01/07/2011	LBP
549	S	Deposit	566	Grave fill	01/07/2011	CDH
550	S	Group		Group for northern human grave	01/07/2011	LBP
551	S	Deposit	550	Turf block in grave fill	01/07/2011	LBP
552	S	Deposit		Turf "structure" associated with Gr. 566	04/07/2011	ÓGS
553	S	Deposit	566	Fill at north of grave	04/07/2011	CDH
554	S	Deposit	550	Turfy upcast	04/07/2011	LBP
555	S	Deposit	566	Fill of posthole [556]	04/07/2011	CDH
556	S	Cut		Posthole	04/07/2011	CDH
557	S	Deposit		Upcast with gravel, north of northern horse grave	04/07/2011	ÓGS
558	S	Deposit	566	Grave fill	04/07/2011	CDH
559	S	Deposit	550	Lower gravelly fill of grave	04/07/2011	LBP
560	S	Deposit		Turf patch (as 552?)	04/07/2011	ÓGS
561	S	Deposit		Gravel patches (upcast)	04/07/2011	ÓGS
562	S	Deposit	550	Gravel with turf lenses	04/07/2011	LBP
563	E-1	Deposit		Tephra 1477	04/07/2011	HMR
564	S	Deposit	550	Mottled gravelly fill	04/07/2011	LBP
565	E-1	Deposit		Aeolian silt	04/07/2011	HMR
566	S	Group		Group for northern horse grave	05/07/2011	CDH
567	S	Deposit	566	Turfy grave fill	05/07/2011	CDH
568	E-1	Deposit		Dark organic rich silt spread	05/07/2011	HMR
569	S	Deposit	566	Lower fill of horse grave, with bone etc	05/07/2011	CDH
570	S	Deposit	550	Posthole fill	05/07/2011	LBP
571	S_ext	Deposit		Tephra 1477	05/07/2011	ÓGS
572	S	Cut		Postpipes	06/07/2011	LBP
573	S	Deposit	550	Lower grave fill	06/07/2011	LBP

Unit	Area	Type	Group	Description	Date	ID
574	S_ext	Deposit		Tephra 1300?	06/07/2011	ÓGS
575	S	Deposit	566	Lower grave fill	06/07/2011	CDH
576	S_ext	Deposit		Mixed turfy organic interface, with 1300 tephra	06/07/2011	HMR
577	S	Cut	550	Cut for human grave	06/07/2011	LBP
578	S_ext	Group		Group for human grave [604] in southern pair	06/07/2011	LBP
579	S_ext	Deposit	578	Upper grave fill	06/07/2011	LBP
580	S	Deposit	566	Clean turf fill, lower part of grave	06/07/2011	CDH
581	S_ext	Deposit		Turfy aeolian upper fill of horse grave	06/07/2011	ÓGS
582	S_ext	Deposit		Gravelly upcast around horse grave	07/07/2011	ÓGS
583	S_ext	Deposit	578	Mottled grave fill	07/07/2011	LBP
584	S_ext	Deposit		Dark turfy ovweburden	07/07/2011	ÓGS
585	E-1	Deposit		Aeolian deposit abutting wall	07/07/2011	HMR
586	S_ext	Deposit	578	Grave fill, with human long bones	07/07/2011	LBP
587	S_ext	Deposit		Gravelly aeolian	07/07/2011	ÓGS
588	S_ext	Deposit		Turf lense - Púfa?	07/07/2011	ÓGS
589	S_ext	Deposit		Posthole fill of [592]	07/07/2011	ÓGS
590	S_ext	Deposit		Posthole fill of [593]	07/07/2011	ÓGS
591	S_ext	Deposit		Posthole fill of [594]	07/07/2011	ÓGS
592	S_ext	Cut		Posthole	07/07/2011	ÓGS
593	S_ext	Cut		Posthole	07/07/2011	ÓGS
594	S_ext	Cut		Posthole	07/07/2011	ÓGS
595	S	Deposit	566	Turfy patches	07/07/2011	CDH
596	S_ext	Deposit		Upper grave fill, with horse skull, horse bones	08/07/2011	ÓGS
597	S	Deposit	566	Basal fill of horse grave	08/07/2011	CDH
598	S	Cut	566	Cut of horse grave	08/07/2011	CDH



Unit	Area	Type	Group	Description	Date	ID
599	S_ext	Deposit		Mottled aeolian	11/07/2011	HMR/AH
600	S_ext	Deposit	578	Grave fill	11/07/2011	LBP
601	S_ext	Deposit	578	Grave fill	11/07/2011	LBP
602	S_ext	Deposit		Turf rich silt	11/07/2011	HMR
603	E-1	Deposit		Aeolian accumulation against wall	11/07/2011	AH
604	S_ext	Cut	578	Grave cut	11/07/2011	LBP
605	E-1	Deposit		Construction debris, trample	11/07/2011	HMR/AH
606	S_ext	Deposit		Turf and stone mound around horse grave	11/07/2011	CDH/LBP /ÓGS
607	S_ext	Deposit		Turf mix	11/07/2011	CDH/ÓGS
608	E-2	Group		Section drawing	12/07/2011	HMR
609	E-1	Cut		Small posthole	12/07/2011	AH
610	E-1	Cut		Small posthole	12/07/2011	AH
611	E-1	Cut		Small posthole	12/07/2011	AH
612	E-1	Cut		Small posthole	12/07/2011	AH
613	E-1	Deposit		Fill of [610]	12/07/2011	AH
614	E-1	Deposit		Fill of [609]	12/07/2011	AH
615	S_ext	Deposit		Upcast	12/07/2011	CDH/ÓGS
616	E-1	Deposit		Fill of [611]	12/07/2011	AH
617	E-1	Deposit		Fill of [612]	12/07/2011	AH
618	E-1	Deposit		Fill of [619]	12/07/2011	AH
619	E-1	Cut		Small posthole	12/07/2011	AH
620	E-1	Deposit		Aeolian. Mid brown orange silt	12/07/2011	AH
621	S_ext	Deposit		Grave fill, southern horse grave, horse bones	12/07/2011	CDH/ÓGS
622	E-1	Deposit		Turf wall, strengur, 2-3 courses, with LNS	12/07/2011	AH
623	E-1	Deposit		LNS in situ beneath (622)	12/07/2011	AH
624	E-1	Cut		Construction cut for wall	12/07/2011	AH
625	S_ext	Deposit		Post hole fill for [626]	13/07/2011	HMR

<b>Unit</b>	<b>Area</b>	<b>Type</b>	<b>Group</b>	<b>Description</b>	<b>Date</b>	<b>ID</b>
626	S_ext	Cut		Post hole	13/07/2011	HMR
627	S_ext	Deposit		Fill of [628]	13/07/2011	ÓGS
628	S_ext	Cut		Posthole	13/07/2011	ÓGS
629	S_ext	Deposit		Stones overlying LNL	13/07/2011	AH
630	S_ext	Deposit		Lower grave fill - horse bones, some articulated	13/07/2011	CDH/ÓGS
631	S_ext	Cut		Cut for horse grave	13/07/2011	CDH/ÓGS
632	S_ext	Deposit	566	Stone row associated with northern horse grave	13/07/2011	CDH
633	E-3	Group		Section drawing	13/07/2011	HMR

## Appendix 2 – Finds Register

<b>Finds No</b>	<b>Unit</b>	<b>Material</b>	<b>Type</b>	<b>Date</b>	<b>ID</b>
11-001	540	Textile	Thread	01/07/2011	OGS
11-002	544	Iron	Object	01/07/2011	HMR
11-003	544	Iron	Object	01/07/2011	HMR
11-004	544	Iron	Object	01/07/2011	HMR
11-005	544	Iron	Object	01/07/2011	HMR
11-006	544	Iron	Object	04/07/2011	LBP
11-007	558	Iron	Nail	04/07/2011	CDH
11-008	558	Iron	Nail	04/07/2011	CDH
11-009	558	Iron	Nail	04/07/2011	CDH
11-010	558	Iron	Object	04/07/2011	CDH
11-011	558	Iron	Object	04/07/2011	LBP
11-012	558	Iron	Object	04/07/2011	CDH
11-013	564	Iron	Object	04/07/2011	LBP
11-014	564	Lead?	Object	04/07/2011	LBP
11-015	569	Iron	Bolt	05/07/2011	CDH
11-016	569	Iron	Object	05/07/2011	CDH
11-017	569	Wood	Fragment	05/07/2011	CDH
11-018	569	Iron	Nail	05/07/2011	CDH
11-019	569	Iron	Bolt	05/07/2011	CDH
11-020	569	Iron+Wood	Object	06/07/2011	CDH
11-021	569	Iron	Circular object	06/07/2011	CDH
11-022	569	Textile?	Fragment	06/07/2011	CDH
11-023	569	Iron	Nail	06/07/2011	CDH
11-024	580	Iron	Buckle	06/07/2011	CDH
11-025	580	Iron	Bridle piece	06/07/2011	CDH
11-026	583	Iron	Nail head?	07/07/2011	LBP
11-027	586	Iron	Object	07/07/2011	OGS
11-028	580	Iron	Studs/nails	08/07/2011	CDH

<b>Finds No</b>	<b>Unit</b>	<b>Material</b>	<b>Type</b>	<b>Date</b>	<b>ID</b>
11-029	580	Iron	Bridle pieces	08/07/2011	CDH
11-030	586	Glass	Bead	08/07/2011	HMR
11-031	586	Iron	Object	08/07/2011	CDH
11-032	586	Glass	Bead	11/07/2011	CDH
11-033	586	Wood	Fragment	11/07/2011	CDH
11-034	600	Wood	Fragment	11/07/2011	CDH
11-035	596	Leather?	Fragment	11/07/2011	CDH
11-036	596	Iron	Plate	11/07/2011	CDH
11-037	621	Iron	Object	12/07/2011	CDH
11-038	630	Iron	Nail	13/07/2011	OGS
11-039	630	Iron	Nail	13/07/2011	OGS
11-040	630	Iron	Plate	13/07/2011	OGS
11-041	630	Iron	Object	13/07/2011	OGS
11-042	630	Iron	Object	13/07/2011	OGS
11-043	630	Iron	Object	13/07/2011	OGS
11-044	630	Iron	Nail	13/07/2011	OGS
11-045	630	Iron	Object	13/07/2011	OGS
11-046	630	Iron	Object	13/07/2011	OGS

## Appendix 3 – Bone Register

<b>Bone no.</b>	<b>Unit</b>	<b>Field notes</b>	<b>Date</b>	<b>ID</b>
B-200	524		29/06/2011	HMR
B-201	530		30/06/2011	HMR
B-202	530		30/06/2011	HMR
B-203	530		30/06/2011	ÓGS
B-204	530		30/06/2011	ÓGS
B-205	532	Tooth	30/06/2011	HMR
B-206	535	Tooth	30/06/2011	HMR
B-207	534	Teeth	30/06/2011	ÓGS
B-208	534	Tooth	30/06/2011	ÓGS
B-209	545	Tooth	01/07/2011	ÓGS
B-210	545	Tooth	01/07/2011	ÓGS
B-211	545	Tooth	01/07/2011	ÓGS
B-212	545	Tooth	01/07/2011	CDH
B-213	545	Tooth	01/07/2011	CDH
B-214	549	Tooth row	01/07/2011	CDH
B-215	549	Tooth	01/07/2011	CDH
B-216	549	Tooth	01/07/2011	CDH
B-217	554	Femur	04/07/2011	LBP
B-218	554	Horse tooth	04/07/2011	LBP
B-219	558	Tooth fragments	04/07/2011	CDH
B-220	558	Horse tooth	04/07/2011	CDH
B-221	558	Tooth fragments	04/07/2011	CDH
B-222	558	Tooth fragments	04/07/2011	CDH
B-223	569	Tooth fragments	05/07/2011	CDH
B-224	569	Horse tooth	05/07/2011	CDH
B-225	569	Horse incisor	05/07/2011	CDH
B-226	569	Horse tooth	05/07/2011	CDH
B-227	569	Long bone fragment	06/07/2011	CDH
B-228	581	Indet	06/07/2011	OGS

<b>Bone no.</b>	<b>Unit</b>	<b>Field notes</b>	<b>Date</b>	<b>ID</b>
B-229	581	Indet	06/07/2011	OGS
B-230	579	Sheep teeth?	06/07/2011	LBP
B-231	579	Indet	06/07/2011	LBP
B-232	579	Indet	06/07/2011	LBP
B-233	583		07/07/2011	LBP
B-234	586		07/07/2011	LBP
B-235	586		07/07/2011	LBP
B-236	586		07/07/2011	LBP
B-237	586		07/07/2011	LBP
B-238	586	Femur	07/07/2011	LBP
B-239	580	Fragments of Horse skull	07/07/2011	CDH
B-240	586		07/07/2011	HMR
B-241	586	Long bone	07/07/2011	HMR
B-242	586	Long bone	07/07/2011	HMR
B-243	580	Fragments associated with B-239	08/07/2011	CDH
B-244	586	Long bone	08/07/2011	HMR
B-245	586	Vertebra?	08/07/2011	HMR
B-246	586	Dog Jaw???	08/07/2011	HMR
B-247	596		08/07/2011	ÓGS
B-248	596	Horse skull	08/07/2011	ÓGS
B-249	586	Long bone	08/07/2011	HMR
B-250	586	Long bone	08/07/2011	HMR
B-251	596		08/07/2011	ÓGS
B-252	596		08/07/2011	HMR
B-253	586	Horse scapula	08/07/2011	CDH
B-254	596		11/07/2011	ÓGS
B-255	596	Tooth	11/07/2011	LBP
B-256	596		11/07/2011	ÓGS
B-257	596		11/07/2011	ÓGS
B-258	596		11/07/2011	ÓGS
B-259	600		11/07/2011	LBP

<b>Bone no.</b>	<b>Unit</b>	<b>Field notes</b>	<b>Date</b>	<b>ID</b>
B-260	596	Scapula	11/07/2011	ÓGS
B-261	596	Pelvis	11/07/2011	ÓGS
B-262	596		11/07/2011	ÓGS
B-263	596		11/07/2011	ÓGS
B-264	596		11/07/2011	ÓGS
B-265	600	Human tooth?	11/07/2011	LBP
B-266	596		11/07/2011	ÓGS
B-267	600	Human inominate?	11/07/2011	LBP
B-268	601	Human inominate?	11/07/2011	LBP
B-269	596		11/07/2011	ÓGS
B-270	596	From sieving	11/07/2011	ÓGS
B-271	621	Horse	12/07/2011	ÓGS
B-272	621	Horse	12/07/2011	ÓGS
B-273	621	Horse	12/07/2011	ÓGS
B-274	621	Horse	12/07/2011	ÓGS
B-275	621	Horse	12/07/2011	ÓGS
B-276	621	Horse	12/07/2011	ÓGS
B-277	621	Horse	12/07/2011	ÓGS
B-278	621	Horse	12/07/2011	ÓGS
B-279	621	Horse	12/07/2011	ÓGS
B-280	621	Horse	12/07/2011	ÓGS
B-281	621	Horse	12/07/2011	ÓGS
B-282	621	Horse	12/07/2011	ÓGS
B-283	621	Horse	12/07/2011	ÓGS
B-284	621	Horse	12/07/2011	ÓGS
B-285	621	Horse	12/07/2011	ÓGS
B-286	621	Horse	12/07/2011	ÓGS
B-287	621	Horse	12/07/2011	ÓGS
B-288	621	Horse	12/07/2011	ÓGS
B-289	621	Horse	12/07/2011	ÓGS
B-290	621	Horse	12/07/2011	ÓGS
B-291	621	Horse	12/07/2011	ÓGS



<b>Bone no.</b>	<b>Unit</b>	<b>Field notes</b>	<b>Date</b>	<b>ID</b>
B-292	621	Horse	12/07/2011	ÓGS
B-293	621	Horse	12/07/2011	ÓGS
B-294	621	Horse	12/07/2011	ÓGS
B-295	621	Horse	12/07/2011	ÓGS
B-296	630	Horse	13/07/2011	ÓGS
B-297	630	Horse	13/07/2011	ÓGS
B-298	630	Horse	13/07/2011	ÓGS
B-299	630	Horse	13/07/2011	ÓGS
B-300	621	From sieving	13/07/2011	ÓGS
B-301	630	Horse	13/07/2011	ÓGS
B-302	630	Horse	13/07/2011	ÓGS
B-303	630	Horse	13/07/2011	ÓGS
B-304	630	Horse	13/07/2011	ÓGS
B-305	630	Horse	13/07/2011	ÓGS
B-306	630	Horse	13/07/2011	ÓGS
B-307	630	Horse	13/07/2011	ÓGS
B-308	630	Horse	13/07/2011	ÓGS
B-309	630	Horse	13/07/2011	ÓGS
B-310	630	Horse	13/07/2011	ÓGS
B-311	630	Horse	13/07/2011	ÓGS
B-312	630	Horse	13/07/2011	ÓGS
B-313	630	Horse	13/07/2011	ÓGS
B-314	630	Horse	13/07/2011	ÓGS
B-315	630	Horse	13/07/2011	ÓGS
B-316	630	Horse	13/07/2011	ÓGS
B-317	630	Horse	13/07/2011	ÓGS
B-318	630	Horse	13/07/2011	ÓGS
B-319	630	Horse	13/07/2011	ÓGS
B-320	630	Horse	13/07/2011	ÓGS
B-321	630	Horse	13/07/2011	ÓGS
B-322	630	Horse	13/07/2011	ÓGS
B-323	630	Horse	13/07/2011	ÓGS

<b>Bone no.</b>	<b>Unit</b>	<b>Field notes</b>	<b>Date</b>	<b>ID</b>
B-324	630	Horse	13/07/2011	ÓGS
B-325	630	Horse	13/07/2011	ÓGS
B-326	630	Horse	13/07/2011	ÓGS
B-327	630	Horse	13/07/2011	ÓGS
B-328	630	Horse	13/07/2011	ÓGS
B-329	630	Horse	13/07/2011	ÓGS
B-330	630	Horse	13/07/2011	ÓGS
B-331	630	Horse	13/07/2011	ÓGS
B-332	630	Horse	13/07/2011	ÓGS
B-333	630	Horse	13/07/2011	ÓGS
B-334	630	Horse	13/07/2011	ÓGS
B-335	630	Horse	13/07/2011	ÓGS
B-336	630	Horse	13/07/2011	ÓGS
B-337	630	Horse	13/07/2011	ÓGS
B-338	630	Horse	13/07/2011	ÓGS
B-339	630	Horse	13/07/2011	ÓGS
B-340	630	Horse	13/07/2011	ÓGS
B-341	630	Horse	13/07/2011	ÓGS
B-342	630	Horse	13/07/2011	ÓGS
B-343	630	Articulated leg	13/07/2011	ÓGS
B-344	630		13/07/2011	ÓGS
B-345	630		13/07/2011	ÓGS
B-346	630	From sieving	13/07/2011	ÓGS

## Appendix 4 – Conservation remarks

Jannie Amsgaard Ebsen - Reykjavík, 6<sup>th</sup> October 2011.

### Iron

The iron objects are in a relative good state of preservation and show no signs of active deteriorating corrosion. All iron objects are put in an airtight box with desiccating Rubin Silica gel to prevent future corrosion. The relative humidity in the drying box should be 15 % RH or lower. The relative humidity in the box should be checked regularly at the enclosed humidity indicator stick and additionally by the change in color of the silica gel from dark Rubin red e.g. dry state to lighter red or orange. And the silica gel changed if necessary.

Remains of wood are present on some of the iron objects.

### Block lifted objects (ING11-28 and ING11-25)

Packed with silica gel and awaits excavation by the undersigned in 2012. For further information please see the X-rays no. 19-24 and 29+30.

### Copper alloys

The copper alloy object is in a relatively good state of preservation and is packed together with the iron objects.

### Glass

The glass beads have been lightly surface cleaned with 30-70 % water and ethanol cleaning solution. The four deteriorated greenish glass bead fragments have been impregnated with 5 % Paraloid B72 in ethanol.

### Leather

The dried out leather fragments ING11-035 were cleaned lightly and packed for storage.

### X-ray analysis

Iron objects ING11-021, 024,-025,-028,-040,-041,-045 and tooth row B214? were taken out for X-ray analysis at Domus Medica.