

**REPORT OF THE SKAGAFJÖRÐUR ARCHAEOLOGICAL SETTLEMENT SURVEY 2008:
EXCAVATIONS AT STÓRA-SEYLA, AREA C**



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INTRODUCTION

Stóra-Seyla is one of two settlement period farms currently identified in the Langholt region. Located at the far southern end of Langholt it dates to the early 10th or late 9th century. Like Glaumbær, the initial occupation was located lower down the slope of Langholt, in this case quite near what would have been open fjord or river at that time but now is drained agricultural land. Also, like Glaumbær the farmhouse was relocated sometime in the 11th century to an area nearby but higher up the slope. The farm had a church by the 13th century, which was maintained until the 18th century and was one of the wealthiest farms on Langholt.

Stóra-Seyla, while a productive farmstead traditionally valued at 40 hundreds (Magnússon and Vídalín 1930), was not a significant political presence in the Langholt region after end of the Commonwealth. It was bought and sold by the aristocracy and not always owner occupied. Reynistaður and Glaumbær, which had been significant places during the Commonwealth, rose in prominence as church farms. Stóra-Seyla never came under the formal ownership of either the church or the Danish crown and it represents the one independent property in the Langholt region that was never owned by either a secular landlord or the church.

In terms of the survey, a particularly appealing aspect of Stóra-Seyla and many of its neighboring farms is that it was no longer farmed after 1972 and instead was rented out to other farmers as pastureland. As a result, the site has not suffered from extensive leveling or plowing and is still in its traditional state including some remnants of homefield walls on the north end of the homefield and the Viking Age site located east and below the medieval-modern site.

2008 Season Goals

Like the previous SASS excavations at Glaumbær conducted in 2005 the primary goal of the 2008 excavations at Stóra-Seyla was to expose architectural features and correlate them with remote sensing data from conductivity, resistivity, and ground penetrating radar (GPR) surveys. Unlike Glaumbær, which is a well-preserved longhouse with one main architectural phase represented in the abandoned house, Stóra-Seyla is a complex set of buildings representing multiple construction and occupational phases, including major reconstructions of older buildings. Most of the architecture and midden deposits are pre-1104 AD in date (based on the stratigraphic relationship to the Hekla 1104 tephra). Some buildings were constructed, abandoned, and partially collapsed by the time of the Veidavötn~1000 AD eruption. There is a least one post-1104 structure on the site, possibly an outbuilding associated with medieval farm located a short distance uphill to the west.

An area of approximately 640 meters² over the Viking Age domestic architecture was deturfed, surveyed with GPR, and excavated down to preserved architectural features. Excavations were largely limited to the removal of overburden and enough collapsed turf to reveal the upper interfaces of intact walls. Collapsed turf layers overlying floor deposits were left in place and unexcavated. Preservation of architectural features was often poor. This was in part due to the construction methods, which employed poor quality turf and a gravelly fill in some of the walls, and later activity on the site that truncated or destroyed some earlier deposits. Most of the exposed area had architectural remains in it. We appear to be at the limit of domestic structures in the south where only one wall free-standing wall extends beyond the limit of current excavation. To the north the site is limited by the old stream cut, although there are additional Viking Age buildings on the north side of the stream. Architectural features extended beyond the 2008 limit of excavation to both the west and east. While the extent of architecture to the west should be limited by the steep hill lying 5-10 meters beyond the excavation limit, there is evidence in both the

remote sensing data and 2002 and 2005 test excavations that Viking Age architecture continues for 15-20 meters further to the east.

Stóra-Seyla is farm number 104 in 1847 Jarðatal á Íslandi (Johnsen 1847). Site number 104 has been used in all excavation records from the 2008 season.

Grid and Measurements

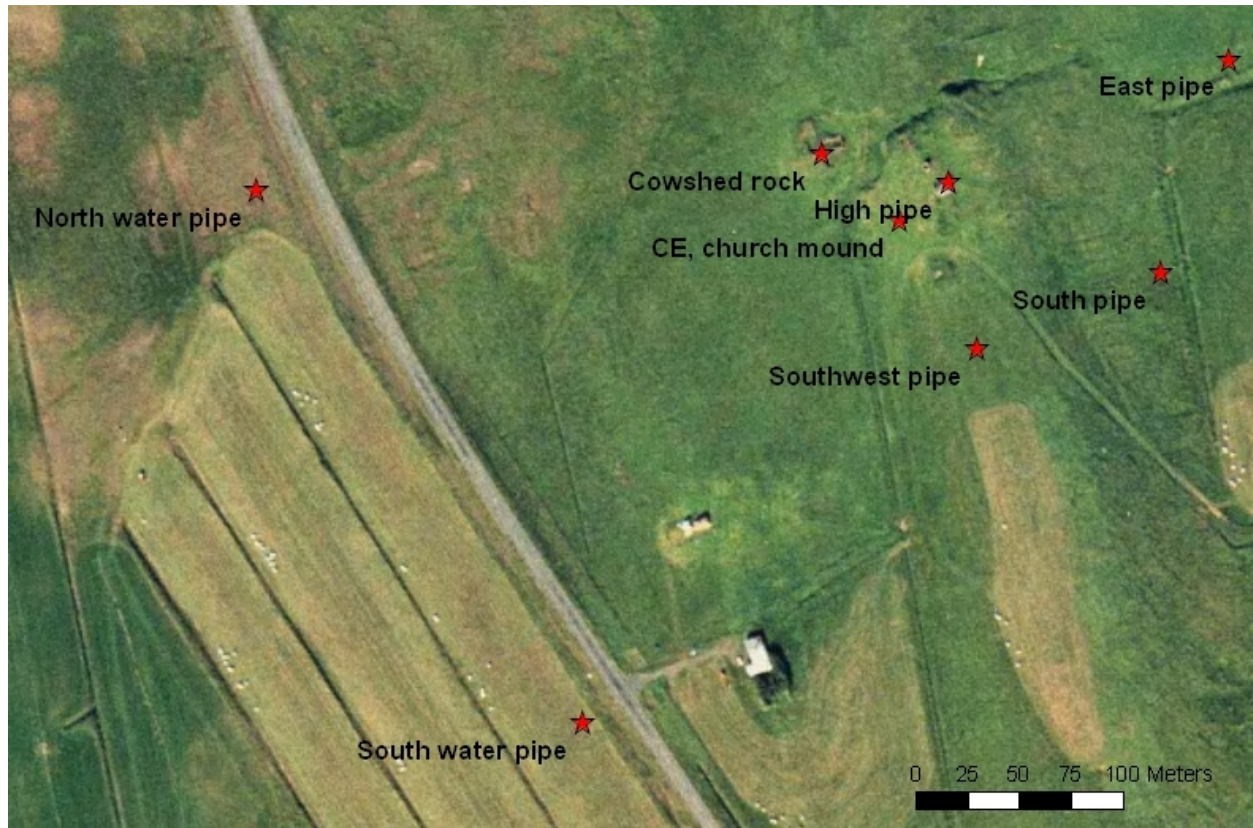


Figure 1. Map of dGPS and total station set up benchmarks at Stóra-Seyla used during the 2008 excavation.

All measurements from the 2008 work at Stóra-Seyla are in meters based on the ISN93 coordinate system. Two benchmarks were established on the west side of the road in 2007 using a high resolution dGPS system. Local site datums situated close to the excavation site were shot in from these benchmarks using a total station ([table 1](#)) ([figure 1](#)). The local site datums used for the daily set up of the total station and to position reference stakes on the site for drawing and measurement were established in 2008 based on these benchmarks. A resection was then performed using all four of these points, to establish coordinates for two further secondary (or more accurately tertiary) benchmarks. Plans were drawn based on measurement to a baseline established from these reference stakes. In most cases elevations were measured directly by the total station. When the total station was not available, elevations were measured with a transit and absolute elevations were calculated based on a local elevation benchmark. For excavation work in 2008 coordinates and bearings for occupied stations (total station locations) were established at least daily by means of resection, consistently utilizing three points (08 0307 HI PIPE R1, 08 0307 S PIPE R3, and 08 0307 E PIPE R3). For other purposes (e.g. topographic mapping of areas away from the excavation area), resections in 2008 each utilized 2-4 of the six secondary benchmarks, as available.

Name	East (m)	North (m)	Elev (m)	Class
South water pipe	477577.705	563831.875	40.504	Bench-permanent
North water pipe	477421.050	564088.332	47.580	Bench-permanent
Cowshed rock (08 0307 COWSHD 08 2)	477692.804	564105.664	30.044	Local setup point
CE, church mound (08 0307 CE 2008 4)	477730.372	564073.645	29.091	Local setup point
High pipe (08 0307 HI PIPE R1)	477753.740	564092.082	26.792	Local setup point
Southwest pipe (08 0307 SW PIPE 2)	477767.882	564011.729	28.123	Local setup point
South pipe (08 0307 S PIPE R3)	477856.188	564048.255	10.664	Resection point
East pipe (08 0307 E PIPE R3)	477889.147	564151.024	10.380	Resection point

Table 1. ISN93 coordinates for Stóra-Seyla benchmarks and local setup points.

Remote sensing and test excavations at Stóra-Seyla during the 2002 and 2005 seasons were referenced to the Hjoursey UTM (zone 27N) grid. Base points were established using a dGPS unit with ca. ± 5 meters accuracy. Remote sensing grids were then laid out from these base points using tapes. The result was a grid with limited absolute accuracy (ca. ± 5 meters) but a high degree of internal consistency. Chaining pins were buried at the corners of the 50x50 meter remote sensing grid at the end of the 2002 season so that the exact grid could be re-established in the future ([figure 2](#)). Test excavations conducted in 2002 and 2005 were positioned based on the original remote sensing grid. During the 2007 season these markers were exposed and measured with the total station in the ISN93 coordinate system. The dual measurements of the remote sensing grid corner points, in Hjoursey UTM and ISN93, were used to convert the older measurements using the Hjoursey UTM coordinate system into ISN93 ([table 2](#)). Spatial adjustments were performed in ArcGIS using an affine transformation utilizing all four corner points of the remote sensing grid. The residual error of the affine conversion from the Hjoursey UTM remote sensing grid corner points to the new ISN93 coordinates was 0.111 (measured in meters). The low error indicates a high degree of internal consistency within the original remote sensing grid, including the effect of vertical change on xy plane coordinates, and that remote sensing and excavations recorded in the original Hjoursey UTM grid can be integrated with more recent measurements, remote sensing, and excavation conducted in the ISN93 coordinate system with minimal discontinuity.

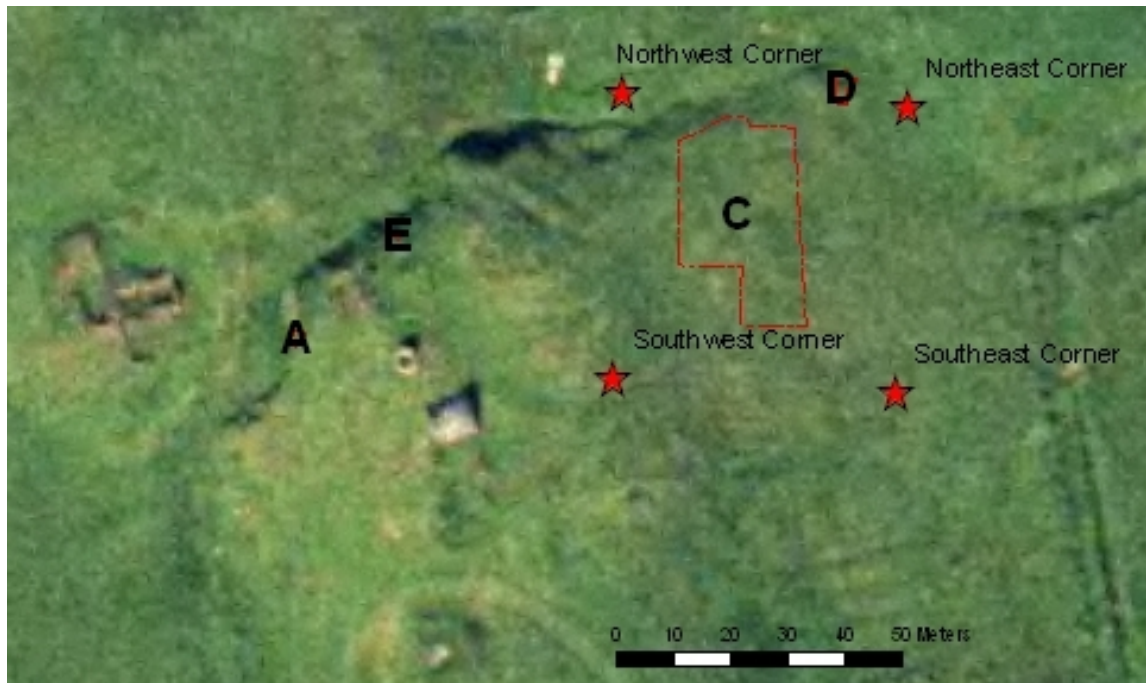


Figure 2. Map of 2002 remote sensing grid and 2007-2008 excavation areas.

Name	East (ISN93)	North (ISN93)	Elev (ISN93)	East (UTM)	North (UTM)
Southwest corner	477779.381	564096.246	19.93	570050	7273500
Southeast corner	477828.880	564093.601	12.528	570100	7273500
Northeast corner	477830.902	564143.486	12.053	570100	7273550
Northwest corner	477780.958	564146.143	14.493	570050	7273550

Table 2. Coordinates for remote sensing grid in Hjørsey UTM and ISN93 reference systems.

Elevation Surface Model

In 2007 and 2008 the region surrounding the medieval-modern mound and Viking Age site was surveyed with the total station to produce topographic models of the terrain. Survey coverage varied based on the rapidity of surface change. Three areas were surveyed at a higher resolution, usually one measurement every meter: the area of the Viking Age domestic structures below the medieval-modern farmmound, the area of the possible church, and the 20th century turf cow barn which is currently in an advanced state of collapse ([figure 3](#)).

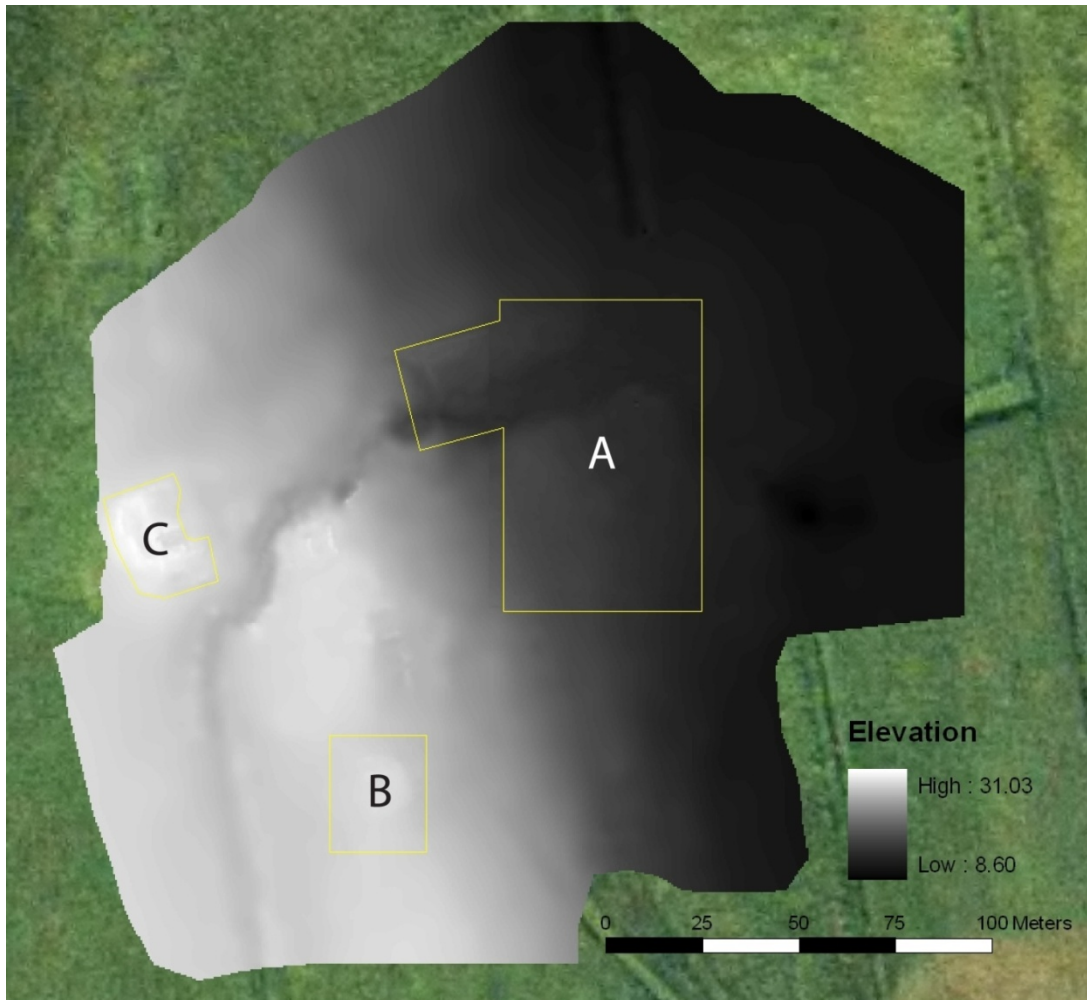


Figure 3. Topographic coverage at Stóra-Seyla; areas of high resolution coverage indicated: (A) Viking Age occupation; (B) church mound; and (C) cow barn.

The high resolution surface models were used to topographically correct remote sensing data for variations in surface elevation and aspect. The surface model also provides a record of visible surface ruins. Additional high resolution data, again on an approximate 1 meter sampling interval, was collected on all deturfed surfaces prior to remote sensing with ground penetrating radar (GPR). These allow GPR profiles and GPR slices to be incorporated into the site excavation model with absolute elevations.

Topographic modeling of the possible church, located a short distance to the south of the medieval-modern farm mound indicates a central rectangular structure surrounded by an outer ring. The outer ring is approximately 15 meters in diameter ([figure 4](#)). A high resolution topographic survey was also conducted covering the 20th century turf cow barn, now in an advanced state of decay ([figure 5](#)).

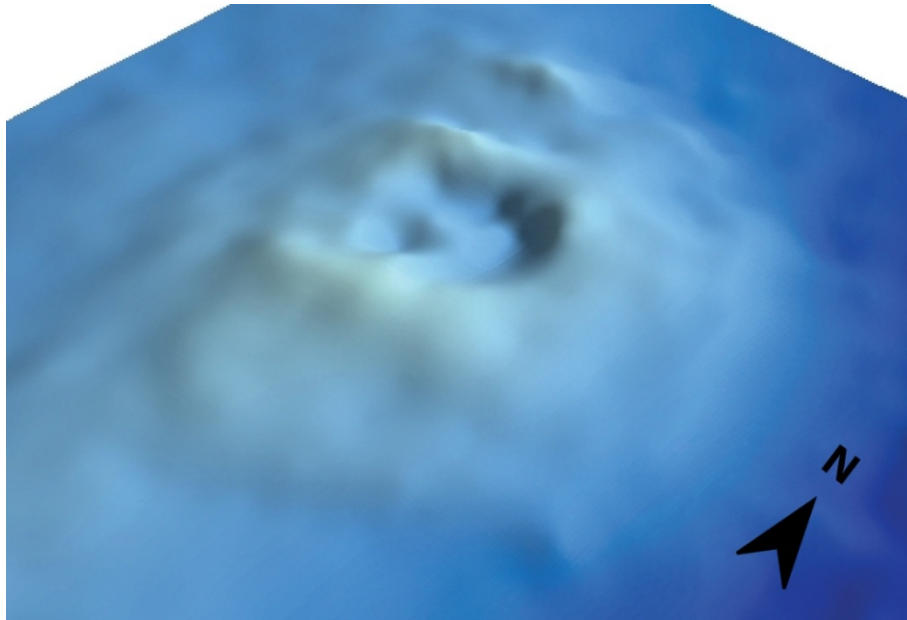


Figure 4. Oblique surface model of the “church mound” at Stóra-Seyla, image is rendered with shadows (light source 45° NE, 25° above the horizon).

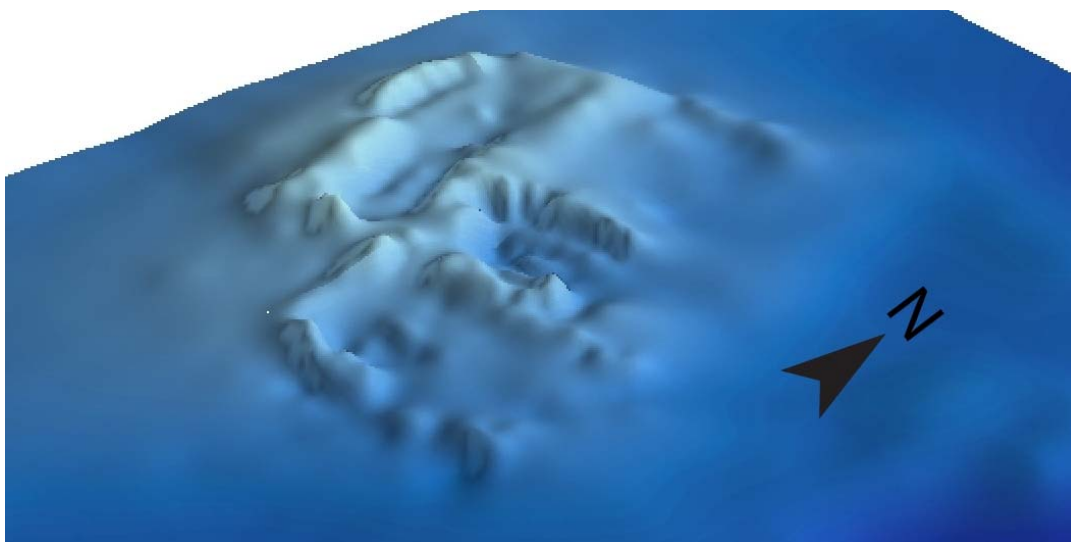


Figure 5. Oblique surface model of the cow barn at Stóra-Seyla, image is rendered with shadows (light source 45° NE, 25° above the horizon).

SASS EXCAVATIONS AT SEYLA

Area A (2007): Upper (medieval-modern) mound; 2x2 meter excavation in northwest edge of mound by eroded stream cut.

Area Supervisor: Douglas Bolender

Area B (2007): Test pit in the fjord bottom; 1x1 meter excavation east of the Viking Age structures in the fjord bottom.

Area Supervisor: Allan Gontz

Area C (2008): Large aerial excavation in the Viking Age habitation area below and east of the medieval-modern farm mound.

Area Supervisor: Douglas Bolender

Area D (2008): Small, 2x2 meter, excavation in the Viking Age midden, northeast of Area C.

Area Supervisor: Rita Shepard

Area E (2008): Cleaning of exposed midden and turf on the north side of the medieval-modern farm mound for profile mapping and micromorphology sampling.

Area Supervisor: Dennis Piechota

Overview of 2008 Excavations, Area C

Excavation in area C in 2008 revealed a large Viking Age domestic occupation and medieval outbuildings. Much of the area was filled with the ruins of structures. Three main structures were exposed.

Structure 1: a post-1104 structure. This appears to be an outbuilding associated with the medieval farm and is likely a small animal barn with enclosing fence.

Structure 2: a large Viking Age structure. The building is rectilinear in shape and appears to have a domestic-type floor. The building predates the Hekla 1104 AD eruption and possible the Veidavötn ~1000 AD eruption.

Structure 3: a small Viking Age structure. The building is sub-rectilinear in shape with gently bowed walls on the long axis (east and west sides). The building predates the Veidavötn ~1000 AD eruption and conforms to the shape of small skáli-type structure.

These three buildings cover much of the excavated area. It is clear that additional features and possible structures are underneath and abutting these structures including what currently appears to be a large and intensively used extramural activity area west and south of structure 3. This area is bounded on the west by a free-standing turf wall [149]. Excavations revealed the upper interface of a floor-like concentration of ash and charcoal [175], what appears to be a hearth [224], and a large scatter of ash and fire-cracked rocks [225], possibly spent cooking stones. Turf walls and stone features were also revealed in the northeast corner of the excavation [164], [170], [168], and [217], east of structure 3 and north of structure 2. These architectural features appear to predate structure 2 and may be earlier or contemporary with structure 3 but the stratigraphic relationship with these structures remains tentative based on the current limits of excavations. The southern end of the excavation, south of structure 1, is the least intensively used area exposed in 2008. There is one, very poorly preserved, free-standing wall [106] that may be a continuation of wall [149]. A small hearth and concentration of stones [102] was found in the southeast corner of the excavation but these were left intact and unexcavated.

Structure 1: Post-1104 structure



Figure 6. Structure 1 viewed from the southwest.

The youngest structure exposed during the 2008 excavations is a post-1104 structure ([figure 6](#)). The structure is generally well-preserved with high standing walls on the north and west sides. The structure continues to the east beyond the 2008 limit of excavation. The building layout is uncertain at present and currently consists of two well-preserved rooms in the north and a possible additional room to the south. The basic geometry of the two sections conforms but the preservation of the southern area differs significantly from the northern section. The southernmost wall [198] and the southern half of the western wall [105] are heavily eroded and little more than turf wall bases and foundation stones remain. This is in stark contrast to the well-preserved rectilinear building or rooms that form the core of structure: walls [103], [105], [196], [195], and [197]. The western [105] and northern [103] walls are constructed of turf including a large amount of the Hekla 1104 AD tephra. The building can be dated to sometime after this ash fall. There is no other tephra covering the building to provide a more precise period of use.

The small room formed by walls [103], [105], [196] and the broken internal division to the east, [195] and [197], are most obviously interpreted as a *hlaða* or hay storage room [125] conjoined with a byre, which would have been located in the largely unexposed eastern-half of the building. This interpretation is reinforced tentatively by resistivity data obtained with the Syscal Kid during the original remote sensing reconnaissance of the site in 2002 (Steinberg 2004). A number of resistivity transects intersect structure 1. The pseudo-profiles generated from the resistivity data were combined to create an interpolated resistivity slice generated from the upper 40 centimeters of the neighboring pseudo-profiles ([figure 7](#)). The resistivity data suggests a core building surrounded by a ring, possibly an unroofed boundary wall or fence. This would explain the stone lining seen on the southern edge of wall [185], the north side of wall [103], the south side of wall [196] and the east and north sides of wall [105] and wall [198]. In each instance these stone facings would have lined the interior of a round corral and helped protect the turf wall from animals. An unroofed boundary wall would also help explain the dramatic difference in preservation between the core rectilinear building and the other stratigraphically contemporary features surrounding it. Such an interpretation must remain highly speculative – the interpretation of the interpolated resistivity slice is tentative and only a small amount of the structure has been exposed. No activity surfaces associated with the use of structure pre-collapse have been exposed with the exception of a compacted layer of bluish sand and hay [191] found outside the structure on the north side of wall [103]

in an area that would be inside the hypothesized enclosure. Nonetheless the resistivity data provides a potential interpretation of an only partially excavated building and an interesting hypothesis for the 2009 excavation season which will expose the remainder of the structure to the east.

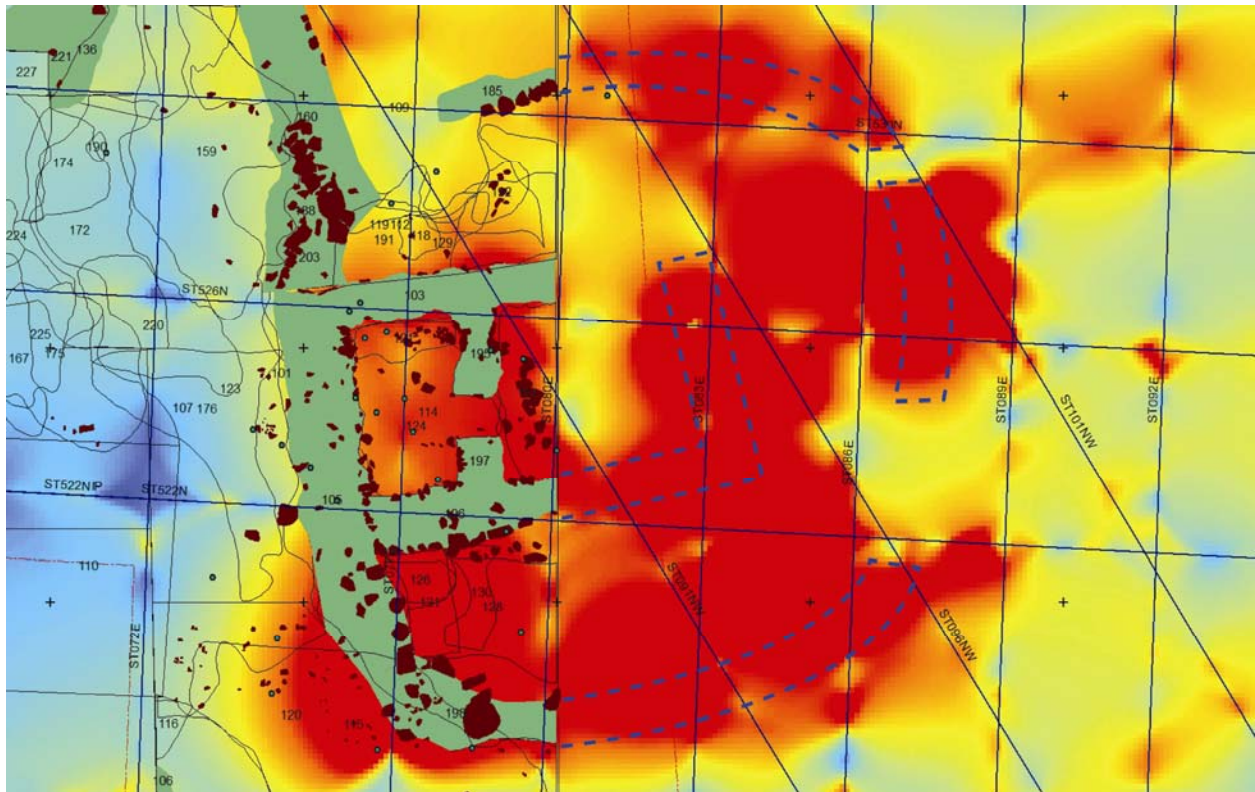


Figure 7. Structure 1 excavated contexts overlaying interpolated resistivity slice of upper 40 centimeters of deposit, blue-red spectrum with red indicating highest resistive anomalies. Walls are shown in green and projected in dotted lines. Resistivity transects are shown as blue lines crisscrossing the structure. Grid tick marks are spaced 5 meters.

A small animal barn is a likely structure for the post-Viking Age use of the site. The medieval domestic structures are located about 80 meters uphill to the west. If early modern homefield maps are any guide to the medieval field boundaries, this structure would have sat just outside the homefield boundary on the edge of the old fjord bottom. Grass for winter fodder production and winter grazing would have been abundant and the animals would have been within an easy distance of the domestic buildings of the farm. An early modern barn and fenced enclosure is located just to the north of the site on the other side of the ravine and may represent continuity in the use of the old Viking Age site.

Excavation of structure 1 was limited to exposing the walls and removing some of the post-use turf collapse filling and surrounding the building. This included some fauna remains, in particular a high concentration of bone and other refuse in a narrow, rectangular, and stratified set of contexts running along the northern inside wall of the “*hlaða*”, contexts [121] and [215]. The domestic refuse deposited in the remains of structure 1 presumably comes from the medieval site situated uphill to the west; no other contemporary domestic occupation sites are known from the site. A copper coin (find number 1) was found just under the turf on the southern edge of wall [185]. The coin cannot be securely associated with structure 1. Please see the separate conservation report for details on the coin.

Structure 1 sits on older architecture at the site. It is not clear the degree to which the construction of structure 1 damaged older buildings and deposits. Structure 2, specifically wall [160], appears to continue under the north wall [103] of structure 1. Resistivity data does indicate deeper features under the unexcavated eastern-half of structure 1, possibly the continuation of structure 2 to the south or some other, as yet, unidentified structure.

Structure 2: Viking Age Hall

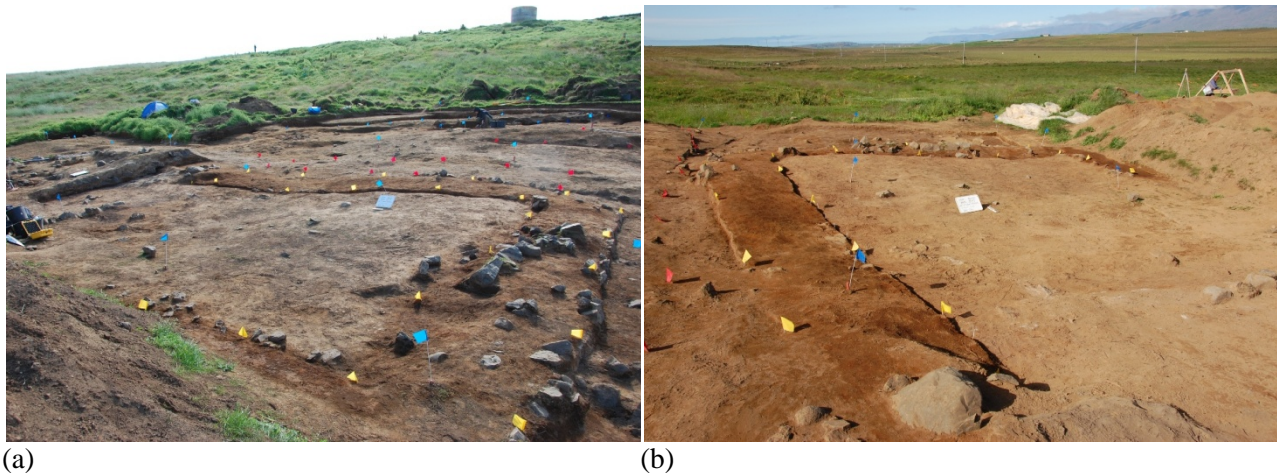


Figure 8. Structure 2: (a) view from the east looking southwest, (b) view from the south looking north.

To the north of structure 1 lies another, older, structure ([figure 8](#)). Three walls were exposed during the 2008 season: [160] on the west, [180] on the north, and a small section of the eastern wall [209]. The southern end of the building is missing, either preserved under or truncated by structure 1. The building is rectangular in form with squared corners on the northern end. Coring in the middle of the building revealed a compact and stratified floor composed of laminated ash and charcoal under an additional 20-30 centimeters of turf collapse. The structure is probably domestic and conforms to the basic layout and dimensions of a Viking Age hall.

Hekla 1104 AD tephra is found mixed in the collapsed turf overlaying the structure but there is no indication of the H 1104 tephra in the walls themselves. This suggests that the ash layer either fell on the structure during the process of collapse and was mixed in with the turf or fell on the uneven surface of the already collapsed building. In either case the building appears to date to the 11th century or earlier. The two cores placed in the unexcavated interior of the building showed the V~1000 AD tephra layer in the turf. The tephra was horizontal in orientation, suggestive of an in situ tephra horizon. If the tephra is an in situ horizon in the collapse of the building it may date as early as the 10th century.

Structure 3: Small Viking Age Hall

The last structure identified during the 2008 excavation season was a small Viking Age hall located immediately to the west of structure 2 ([figure 9](#)). The upper part of the building is poorly preserved. The western wall [216] is preserved to the greatest height but is probably of the poorest construction in the structure consisting of an undefined turf outer facing and turf and gravel fill. This construction technique is similar to the southern wall [221] which abuts wall [216]. The walls forming the north [213] and east [154] sides of the structure are constructed of clear turf blocks and have limited amounts of gravel and mixed turf fill with the exception of a small patch of gravel in the east wall [161]. The east wall in particular does not appear to be preserved to a great height. The internal and external deposits abutting the

eastern wall were left largely intact but defining the interior contact of the wall revealed the upper contact of a likely floor. A micromorphology sample taken in the middle of the structure also revealed a charcoal and ash laminate floor about 10 centimeters under the excavated surface. The interior of the building has limited turf collapse and it is unclear where much of the turf that must have composed the walls and roof have gone.



Figure 9. Structure 3: view from the north looking down the long axis of the structure.

The entire collapsed structure was covered by an in situ Hekla 1104 AD tephra layer. This tephra and the in situ V~1000 AD tephra layer underneath of it conform to the surface topography of the ruined building indicating that its current state of preservation, or state of collapse, is similar to its condition circa 1000 AD. The northern end of the building, contexts [150], [152], and [156], is an exception where V~1000 tephra was found mixed in with the collapsed turf overlaying an in situ V~1000 tephra layer below. This part of the building had fallen into disuse by 1000 AD but appears to have had some upstanding walls that further collapsed after the V~1000 ash fall. This fits with the thicker collapse layers and higher number of artifacts and bones found mixed into the collapsed turf in the northern half of the building. This included a bronze ring pin (find number 83) ([figure 10](#)). It is unclear whether or not the northern end of the structure has a later use life than the rest of the structure, if it was simply slower to collapse, or if other parts of the structure were intentionally leveled.

Abutting structure 3 on the northwest is small rectangular structure [205], [206], [207], and [212]. It appears to share a wall with structure 3. There is no connecting opening between the two buildings and the western end of the small structure extended beyond the limit of excavation. The construction techniques and sequence of collapse, including the in situ tephra layers, are similar to structure 3 and it is likely an ancillary room.

Structure 3 appears to be a small Viking Age type hall, possibly with an internal division separating the northern third of the building from the rest of the structure. The interior dimensions of the building, not counting the possible separation in the north are approximately 12.9 meters long by 4.7 meters wide. At the moment, structure 3 is tentatively identified as the oldest exposed structure on the site, although it is unclear how the buildings relates structure 2 to the east and whether or not the two buildings were contemporary. It is clear, however that there are older structures on the site including a possible larger

longhouse underneath of structure 3. If structure 3 represents a single phase of the occupation it would be an unusually small Viking Age hall, especially considering the fertile situation of Stóra-Seyla and the later history of the farm as one of the prominent and wealthy estates of the region, Seyluhreppur, which presumably derives its name from the farm. With the limited excavation we cannot be certain that the building was domestic but it certainly appears to be based on the limited exposure of the floor to obtain a micromorphology sample and the interior contact with the east wall. If it is a domestic occupation that was contemporary with one of the other domestic buildings on the site, possibly structure 2, then it raises the intriguing possibility of multiple households at the site.



Figure 10. Bronze ring pin, find #83 from context 156.

An Older Structure under Structure 3?

Structure 3 appears to be a rebuild of an older, larger structure. Few elements of this possible older structure were exposed during the 2008 season but there are strong indications of a structure that follows the same basic layout as structure 3 but which extended further to the south. The west wall of structure 3 [216] appears to be wider than the other walls in the structure. Exposure of the upper interface of the wall indicated that the wall may be a composite of two or three construction phases. The distinction between these walls was poorly defined in plan and they were recorded as a single context [216]. A 2002 test trench (E065, N531; [227]) intersected the southern end of the wall [216]. In profile three distinct sections of turf construction are clear corresponding to the 2008 wall context [216]: layers 7, 16, and 19 ([figure 11](#)). On the southern side of the test trench there is only one clear turf wall shown in the profile, perhaps corresponding to the extension of an older structure to the south. The turf wall seen in the southern profile of the 2002 test trench was not exposed in plan during the 2008 excavation and presumably extends under the extramural (?) floor [175] and hearth [224] which cover the area to the south and southwest of structure 3.

The eastern wall of structure 3 also appears to sit on or next to another turf wall that fills the space between [154] and [160] (the west wall of structure 2). Wall [154] interfaces with the southern end of structure 3, wall [221], but there is also a clear continuation of the wall to the south beyond the southern end of structure 3. This wall abuts two floor-like deposits to the west: a sandy-soil with gravel, peat ash and charcoal [220] and another compact deposit of peat ash and charcoal that was partially exposed (about 20 square centimeters) along the western interface of wall [154] south of the end of structure 3; the rest of the deposit was not exposed or mapped. A charcoal lens and possible upper interface of a hearth deposit [190] is also found south of structure 3. This possible hearth appears to be associated with the partially exposed floor.

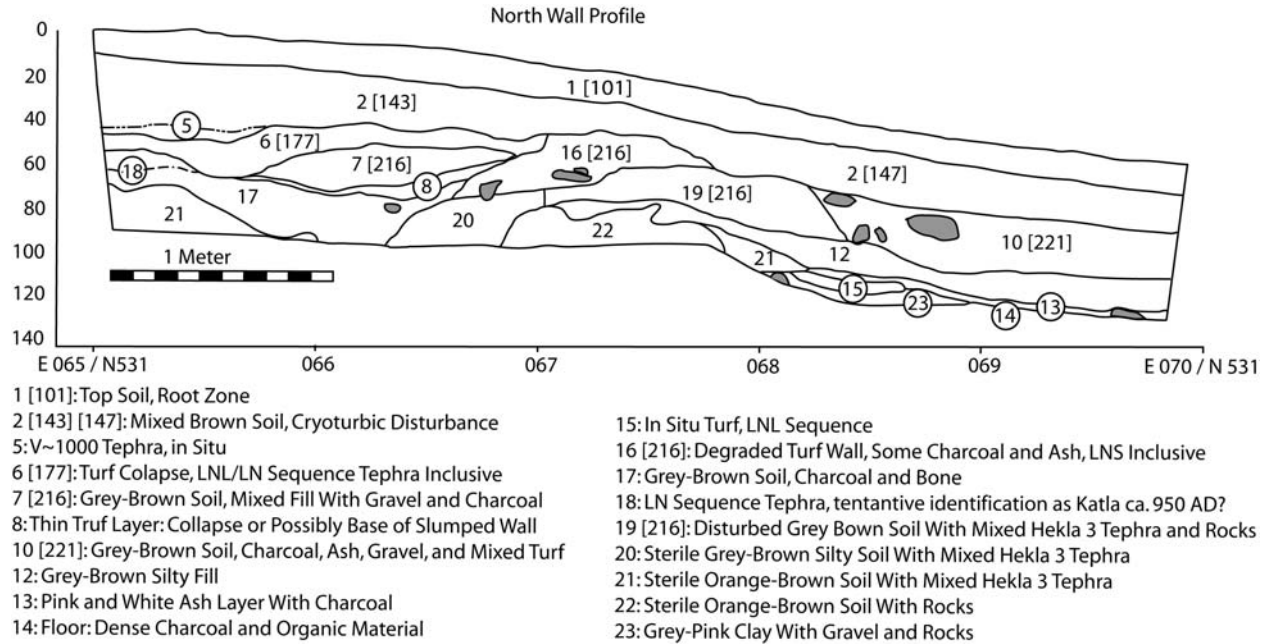


Figure 11. 2002 test trench (E065, N531; [227]) with corresponding stratigraphic layers from the 2002 profile and 2008 excavation contexts.

The 2002 trench [227] intersected the southern end of the structure 3 cross-cutting the gravel filled wall [221]. Underneath that wall, layer 10 in the profile, there is a compact layer of ash and charcoal (layer 13) over a dense layer of compressed charcoal and organic material (layer 14). These floor layers clearly don't correspond to the interior boundary of structure 3 in the form exposed during the 2008 excavations as they lie under the southern wall of the structure [221]. They would correspond to a floor associated with the wall fragments to the east and west that extend beyond the southern boundary of structure 3 and potentially the floor and possible hearth [190] discussed above.

All in all, the various structural fragments of an older building under structure 3 exposed during the 2008 season and the 2002 test trench indicate a hall-like form with (very) approximate dimensions of 25 meters long and 5.5 meters wide. The existence of this buildings is, itself, tentative and the dimensions and form are little more than guess work but they do suggest a domestic occupational phase for the site prior to any of the structures identified in the 2008 excavation.

APPENDIX A. CONTEXT REGISTER, AREA C

CONTEXT	TYPE	DESCRIPTION	DATE	ID
101	Deposit	Topsoil	07/03/2008	KMJ
102	Deposit	Charcoal deposit, SW area C	07/03/2008	KMJ
103	Deposit	Turf wall	07/04/2008	KEG
104	Deposit	Turf/stone wall, oriented E-W, middle area A	07/04/2008	KDL
105	Deposit	Stone (and turf?) wall, oriented N-S, middle area A	07/04/2008	AA
106	Deposit	Turf wall , oriented NNW-SSE, SW area A	07/06/2008	KMJ
107	Deposit	Midden-turf collapse	07/06/2008	AA
108	Deposit	Turf collapse, N of 103	07/06/2008	KEG
109	Deposit	Turf collapse, S of 104	07/06/2008	KDL
110	Cut	2005 5x5 trench ("Rita's Trench")	07/07/2008	JWS
111	Cut	2002 1x6 trench, N in area C ("Linda's Trench")	07/07/2008	JWS
112	Deposit	Turf Collapse (similar to 114) N of wall 103	07/07/2008	HMR
113	Deposit	Turf collapse (superceded by 123)	07/07/2008	AA
114	Deposit	Turf collapse over room 125, building 132	07/08/2008	KEG
115	Deposit	Loose friable soil, erosion/root disturbance	07/08/2008	PJG
116	Deposit	Friable soil with mixed turf	07/08/2008	PJG
117	Deposit	Aeolian deposit in building 132	07/09/2008	DJB
118	Deposit	Ash lens N of wall 103	07/09/2008	KDL
119	Deposit	Aeolian deposit N of wall 103	07/09/2008	RSS
120	Deposit	Aeolian deposit with turf	07/09/2008	PJG
121	Deposit	Ash/bone midden lens in room 125	07/09/2008	CGC
122	Deposit	Fill south of building 132	07/09/2008	
123	Deposit	Turf Collapse	07/09/2008	AA
124	Deposit	Turf Collapse in room 125	07/09/2008	KMJ
125	Group	NW room in building 132	07/09/2008	KMJ
126	Deposit		07/12/2008	PJG
128	Deposit	Turf collapse	07/12/2008	PJG
129	Deposit	Turf collapse N of wall 103	07/12/2008	DJB
130	Deposit	Lens of compact turf collapse	07/12/2008	PJG
131	Deposit	Aeolian with mixed turf	07/12/2008	PJG
132	Group	Possible animal barn; renamed structure 1	07/15/2008	DJB
136	Deposit	Turf collapse with V~1000 in turf and spots of H1104	07/17/2008	KMJ
137	Deposit	North-South fill along H1104 covered turf wall	07/17/2008	CGC
138	Deposit	East-West fill along H1104 covered turf wall	07/17/2008	CGC
139	Deposit	Peat ash deposit on top of turf wall collapse	07/17/2008	KMJ
140	Deposit	Auger hole fill	07/18/2008	ALM
141	Deposit	Turf	07/18/2008	ALM
142	Deposit	Aeolian and turf over H1104	07/18/2008	PJG
143	Deposit	Aeolian and turf between H1104 and V~1000 west of skáli	07/19/2008	KMJ
147	Deposit	Aeolian and turf bits between H1104 and V~1000 inside skáli, similar to 143	07/19/2008	DJB
149	Deposit	Collapsed turf wall	07/19/2008	PJG
150	Deposit	Aeolian and turf collapse, N room skáli between 1104 and 1000	07/20/2008	PJG
152	Deposit	Linear stone cluster in north and surrounding deposit	07/23/2008	KEG
153	Deposit	Collapsed turf with 1104 directly underlying 136	07/23/2008	KMJ
154	Deposit	Skáli wall northeast	07/24/2008	DJB/PJG

CONTEXT	TYPE	DESCRIPTION	DATE	ID
155	Deposit	Turf with H1 stripes	07/25/2008	DJB
156	Deposit	Northern room wall collapse and Aeolian	07/25/2008	PJG
159	Deposit	1104 tephra concentration in dark organic layer under 153	07/28/2008	AA
160	Deposit	Turf wall to east of unit 1000 cut in turf abutted by 1104 in [159]	07/29/2008	AA
161	Deposit	Sandy and gravelly deposit in east skáli wall	07/29/2008	AA
162	Deposit	Rocks and cobbles abutting [156] on top of V1000 end of intersecting wall	07/30/2008	PJG
163	Deposit	Aeolian and turf collapse with H 1104	07/30/2008	DJB
164	Deposit	Turf collapse between east wall and trench	07/30/2008	AA
167	Deposit	Brown aeolian layer, stratigraphically the same as context 143 (south)	07/31/2008	RST
168	Deposit	Interior collapse of northeast room	07/31/2008	JMS
170	Deposit	Wall collapse/turf	07/31/2008	PJG
172	Deposit	Aeolian turf above floor/peat ash	08/01/2008	AA
174	Deposit	Aeolian deposit on top of longhouse floor/charcoal deposit	08/01/2008	AA
175	Deposit	Floor, peat ash, charcoal deposit	08/01/2008	AA
176	Deposit	Collapsed turf associated with wall to east of unit covering [174] partially	08/02/2008	KMJ
177	Deposit	Mottled turf layer with V1000 tephra under [143]	08/02/2008	DJB
178	Deposit	Aeolian under [177]/V1000	08/02/2008	DJB
179	Cut	Test pit for sample 102	08/02/2008	JMS
180	Deposit	Turf wall below [104]	08/02/2008	PJG
181	Deposit	Organic layer with ash overlying longhouse wall	08/02/2008	KMJ
183	Deposit	Turf ash layer under [129] north of wall [103]	08/02/2008	DJB
185	Deposit	Stone foundation with turf	08/04/2008	PJG
186	Deposit	Fill inside [160] and [185]	08/04/2008	PJG
188	Deposit	Turf and stone wall with H1104 oriented north/west of [105]	08/04/2008	DJB
189	Deposit	Turf and charcoal next to west wall of longhouse	08/04/2008	AA
190	Deposit	Charcoal lense, possible hearth	08/04/2008	JMS
191	Deposit	Blue sand and hay under [183]	08/05/2008	DJB
192	Deposit	Turf with stones to north of wall [103]	08/05/2008	KMJ
195	Deposit	Small wall running north-south perpendicular to [103]	08/05/2008	KMJ
196	Deposit	Wall running east-west perpendicular to [105] and parallel to [103]	08/05/2008	KMJ
197	Deposit	Small wall running north-south perpendicular to [196]	08/05/2008	KMJ
198	Deposit	Wall running east-west perpendicular to [105] and parallel to [103] and [196]	08/05/2008	KMJ
203	Deposit	Turf and stone wall	08/06/2008	DLW
205	Deposit	Aeolian and turf debris north of erosion line under V1000 in situ and similar to north of [177]	08/06/2008	DJB
206	Deposit	Turf wall running east-west at west edge LOE under 205	08/06/2008	DJB
207	Deposit	Turf collapse north of [206]	08/06/2008	DJB
208	Deposit	Rocks with reddish-brown turf east of wall [195]	08/06/2008	PJG
209	Deposit	Turf wall running north-south, east of wall [180]	08/06/2008	PJG
210	Group	Northeast "11th century" building	08/06/2008	PJG
211	Deposit	Interior collapse building [210]	08/06/2008	PJG
212	Deposit	Turf and stone wall N-S orientation far NW of excavation	08/06/2008	DJB

CONTEXT	TYPE	DESCRIPTION	DATE	ID
213	Deposit	North wall of longhouse running east-west	08/06/2008	PJG
214	Deposit	Main skáli room deposit underneath V1000	08/06/2008	PJG
215	Deposit	Underneath [121] very turfy "bone closet" organic layer with bones	08/07/2008	KMJ
216	Deposit	West skáli wall	08/07/2008	DJB
217	Deposit	Parallel lines of stone in NE of excavation, east of [168]	08/07/2008	KMJ
218	Deposit	Turf wall west of skáli and running NW-SE	08/07/2008	AA
219	Group	Northeast room with parallel turf wall, running E-W into 2 rows of stones running N-S	08/07/2008	PJG
220	Deposit	Sandy soil with gravel, peat ash, and charcoal partially mixed with [175] and on top of longhouse wall [154]	08/07/2008	
221	Deposit	Stone filled south skáli wall	08/07/2008	PJG
222	Group	Young, small skáli	08/07/2008	DJB
223	Group	Room, NW excavation: 205, 206, 207, 212	08/09/2008	DJB
1104	Deposit	H1104 Tephra	07/12/2008	AA
224	Deposit	Peat ash concentration, "hearth" in floor 175	02/09/2009	DJB
225	Deposit	Cluster of rocks in floor 175	02/09/2009	DJB
226	Cut	Interface at SW edge of 153	02/09/2009	DJB
227	Cut	1x5 east-west trench from 2002 "Doug's Trench"	02/23/2009	DJB

APPENDIX B. FINDS REGISTER, AREA C

UNIT	FIND	EAST	NORTH	Z	MATERIAL TYPE	OBJECT TYPE	DESCRIPTION
101	1	477810.18	564125.10	14.34	Copper	coin/disc	2 small drilled holes
107	2	477804.01	564118.41	15.42	Copper	unid shape	small roundish piece of copper
107	3	477804.57	564118.10	15.38	Copper/Iron	unid shape	small round piece of flat copper and iron
109	4	477809.30	564130.63	14.19	Copper	unid shape	small round piece of flat copper
109	5	477809.02	564130.47	14.25	Copper	unid shape	small round piece of flat copper
109	6	477809.37	564130.16	14.18	Metal	nail	Nail
101	7	477804.90	564126.88	14.79	Ceramic	pipe	
101	8	477806.02	564127.09	14.45	Lithic	obsidian	
109	9	477804.95	564130.76	14.69	Metal	nail	bent nail
109	10	477805.04	564130.53	14.66	Horn?	fragment	Burnt
109	11	477804.41	564131.63	14.73	Lithic	obsidian	
109	12	477806.74	564122.85	14.86	Metal	nail	
101	13	477810	564118		Metal	unid shape	poss. buckle, long cylindrical, bent at top
101	14	477807	564119		Metal	slag	
101	15	477804.37	564113.18	15.35	Ceramic	ceramic	Porcelain
101	16	477804.48	564114.28	15.32	Metal	slag	
101	17	477806.08	564107.81	15.24	Lithic	worked?	possibly worked
101	18	477806.41	564107.76	15.17	Copper	unid shape	
101	19	477806.49	564109.28	15.09	Metal	?	
109	20	477809.92	564128.09	14.19	Ceramic	plate	transferware, plate sherd
109	21	477806.85	564127.36	14.37	Copper	unknown	copper "cap", dust
101	22	477803.74	564135.37	14.47	Stone		flint or obsidian
101	23	477803.74	564130.38	15.25	Iron		Rivet
101	24	477807.14	564127.03	14.29	Glass		green glass shard
101	25	477811	564125	14.35	Metal		localized collection of rivets and slag
101	26	477809	564116.39	14.73	Metal		Rivet
101	27	477809.3	564114.4	14.73	Glass and Ceramic		localized collection of glass and ceramic
115	28				Slag		Slag
115	29	477806.46	564112.07	15.01	Obsidian		obsidian, prob. Natural, not worked
115	30	477810.11	564110.38	14.66	Metal		slightly curved, poss nail?
107	31				Ceramic		calcified bone and ceramic
107	32				Slag		Slag
101	33	477805.143	564117.65	15.38	Copper		
114	35				Slag		collection from all context
101	36	477803.21	564115.49	15.23	Copper	unknown	Copper
117	37	477809.34	564119.79	14.73	Horn		slice of horn
117	38				Wood		wood splinters/ fragments
114	39	477806.03	564119.02	15.25	Copperl	unid shape	rectangular disc

UNIT	FIND	EAST	NORTH	Z	MATERIAL TYPE	OBJECT TYPE	DESCRIPTION
114	40	477806.45	564118.74	15.2	Metal	unid shape	Flat rectangular disc flaked into two equal pieces
114	42				Slag		Slag
115	43				Slag		Slag
120	44	477808.33	564112.10	17.30	Slag		Slag
119	45	477806.12	564120.90	17.30	Lithic	Fragment	quartz?
121	46	477806.22	564120.20	17.30	Bone		poss. worked
117	47				Slag	Fragments	3 pieces of slag
121	48				Slag	Fragment	Slag
120	49	477808.87	564110.25	17.30	Ceramic	fragment	piece of ceramic
121	50	477806.65	564120.32	17.30	Bone		Worked
105	51	477805.66	564117.00	17.30	Ceramic	unid shape	poss. pipe stem frags
124	52	477806.16	564118391	14.97	Wood	fragment	wood splinters
129	53	477805.91	564120.74	17.32	Metal		
124	54	477807.17	564118.36	14.94	Stone		polished stone
137	57	477793.52	564133.31	15.88	Bone?		found in profile where H1 dives down, possibly under or with H1
101	58	477794.83	564127.51	16.12	Ceramic	fragment	
107	59	477796.86	54122.13	15.96	Bone	worked?	hole in end of bone made by shovel
140	60	477791.92	564137.12	15.76	Organic		NW corner in 1104 tephra layer
142	61	477792.74	564122.48	16.38	Metal	?	metal piece over 1104 tephra
143	62	477793.55	564128.96	16.09	Metal	nail	
150	65	477795.55	564135.03	15.38	Metal	nail? Slag?	
150	66	477796.82	564133.62	15.08	Metal	nail	iron nail beneath 1104
150	67	477795.43	54136.56	15.27	Metal	?	Pointy shape
136	70	477801.86	564127.77	15.17	Iron		horse shoe? Assoc. w/ 1104 tephra
150	71	477794.80	564137.66	15.25	Iron	nail?	Bent
136	72	477800.76	564129.60	15.31	Copper		Architectural
152	73	477799.05	564137.83	14.86	Bone		worked, groove on top
136	74	477801.39	564126.97	15.28	Copper	?	sharp, pencil-shaped
150	75	477797.13	54135.78	15.26	Metal	nail	Curved
150	76	477796.24	54134.49	15.30	Metal	?	
152	77	477797.05	54135.93	15.22	Metal	nail? Rivet?	found between rock piles
150	78	477798.02	564138.44	14.91	Slag		
154	79	477798.81	564139.50	14.70	Metal	?	in wall
154	80	477798.68	564139.40	14.72	Metal	?	in wall
156	81	477796.25	564138.42	15.07	Metal	?	in turf collapse
123	82				Lithic	whetstone	in turf collapse post-1104
156	83	477797.56	564136.31	15.08	Metal	?	Long copper pin with ring on one end
156	84	477796.95	564137.83	15.08	Metal	nail	

UNIT	FIND	EAST	NORTH	Z	MATERIAL TYPE	OBJECT TYPE	DESCRIPTION
156	85	477797.70	564136.31	15.03	Iron		Oval shaped iron disc
156	86				Iron		2 pcs. Found while screening, 1.) flat and bumpy, 2.) bent nail?
153	87	477802.02	564133.27	14.70	Iron		Slightly curved-wrought
162	88	477797.14	564135.18	15.10	Lithic		Small rock with spherical, iron hole
170	93	477803.40	564136.01	14.34	Slag		Slag
164	94	477801.23	564135.39	14.61	Lithic	Obsidian	Light brown core
167	96				Lithic	?	Polished stone
	103	477801.11	564123.86	15.08	Iron	Nail	Nail, well preserved, about 10cm long
183	114	477807.63	564123.49	14.50	Lithic	Frag	Jasper
189	115				Leather	Frag	
178	120	477794.73	564123.94	15.96	Iron	frag	
195	122	477808.70	564119.95	14.24	Stone		
196	124	477807.66	564117.41	15.11	Lithic	Frag	Basalt

APPENDIX C. SAMPLE REGISTER, AREA C

UNIT	SAMPLE	EAST	NORTH	Z	VOL.	BAGS	TYPE	DESCRIPTION
102	1				8 L	2	Flotation	Charcoal lens, 4L/bag
118	2					1	Flotation	Ashy Lens
129	3					1		Wood in turf collapse
156	21	477794.27	564136.24	5.29	4 L	2		"bone midden" above 1000 4L total, 2, 2Lbags
156	22					1		Wood from W wall
156	23	477797.24	564139.13	14.85	-	1	Soil, Bulk	Purple soil near north wall
154	33	477799.76	564136.76	14.82		1	Tephra	"blue tephra" in E wall
164	39	477800.62	564137.98	14.55		1		Wood in turf collapse
179	102							Floor cylinder / micromorph
183	110	477810	564123		4 L	1	Flotation	Flotation sample - hay
189	111					1	Radiocarbon	Charcoal sample
190	112						Flotation	Charcoal sample/Float
178	129	477795.14	564124.22	15.96	4 L	2		Flot/Iron sample?
178	130	477795.14	564124.22	15.96	4 L	2		Flot/Iron sample?

APPENDIX D. NUMBER OF ANIMAL TEETH AND JAWS, AREA C

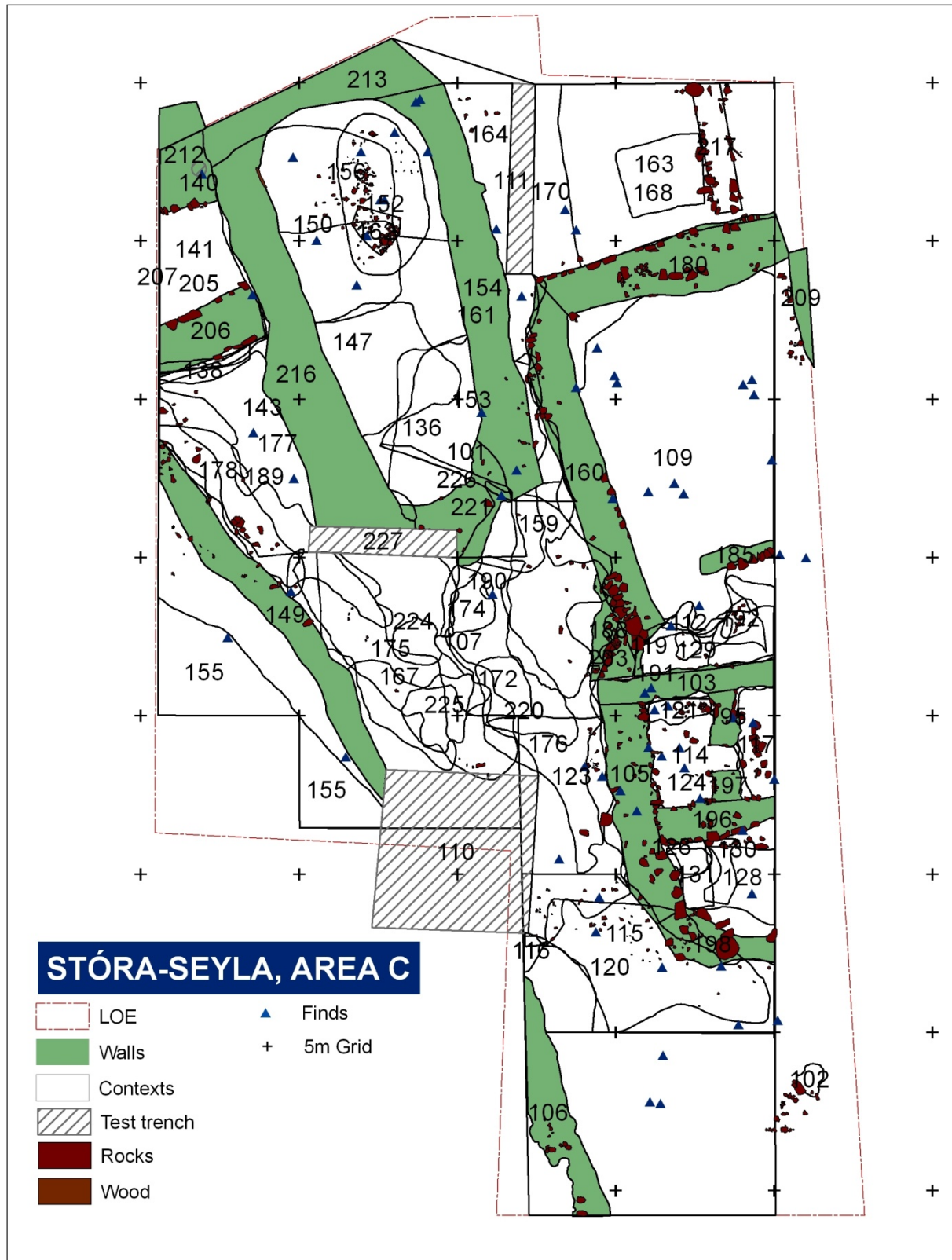
Context	Caprine	Cattle	Horse	Pig	Other
115	1	3	2		
107	5	5			
114	6	1			
119	8	6	1		
115					
120	8	7	1		7
113					
121					38
119					
121					
121					
120					
105					
126					
131	1				
128		1	1		
107					
150	19	1		1	
150					
143	7	2			
136					
123	2				
152	2	2			1
152	4				
143					
154	1				
156	40	3	1	2	1
156					
156					
150					
156					
156	2				
156	2				
156					
156					
149	1				
159	1				
164	5				
162	4			3	
163					
170	1				
129	1				
136	6				
1104	2	2			
153	3				
156		1			
156	1				

Context	Caprine	Cattle	Horse	Pig	Other
156		1			
156	2				
162	1				
117	2	4			1
149					
142	3				3
108	7				
189	10	2			
183	1	1			
167	6	2			
177					
188	3	3			
147				1	
176					
178	5				
102	6				
109					
185		1			
213					
214	6				
181		1			
156	1				
216	1				
205					
215					
196					
175					
131	2				
221	1				

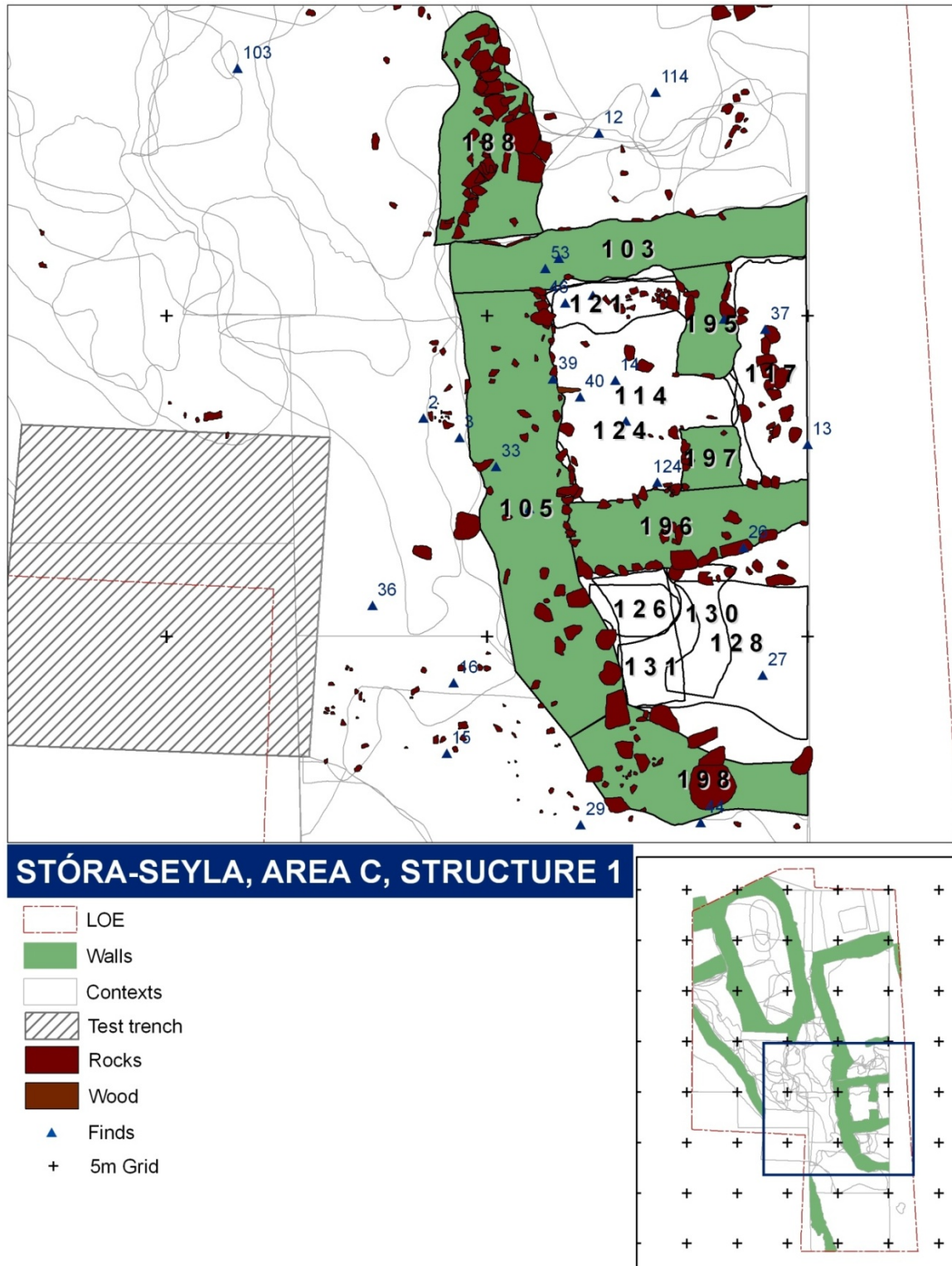
APPENDIX F. 2008 CREW LIST AND REGISTER IDENTITIES

FULL NAME	ID
John Steinberg	JMS
Douglas Bolender	DJB
Katherine Johnson	KMJ
Peter Gangemi	PJG
Kristina Larkin	KDL
Marisa Patalano	MDP
Heather Trigg	HT
Emily Button	ELB
Rita Shepard	RSS
Amelie Allard	AA
David White	DLW
Kelly Goldberg	KEG
Colin Connors	CGC
Josiah Wagener	JWW
Rosie Taylor	RST
John Schoenfelder	JWS
Brian Damiata	BND
Howell Roberts	HMR
Jane Piechota	JDP
David Landon	DL
Jennifer Landon	JML
Stephen Mourzowski	SM
Dennis Piechota	DP

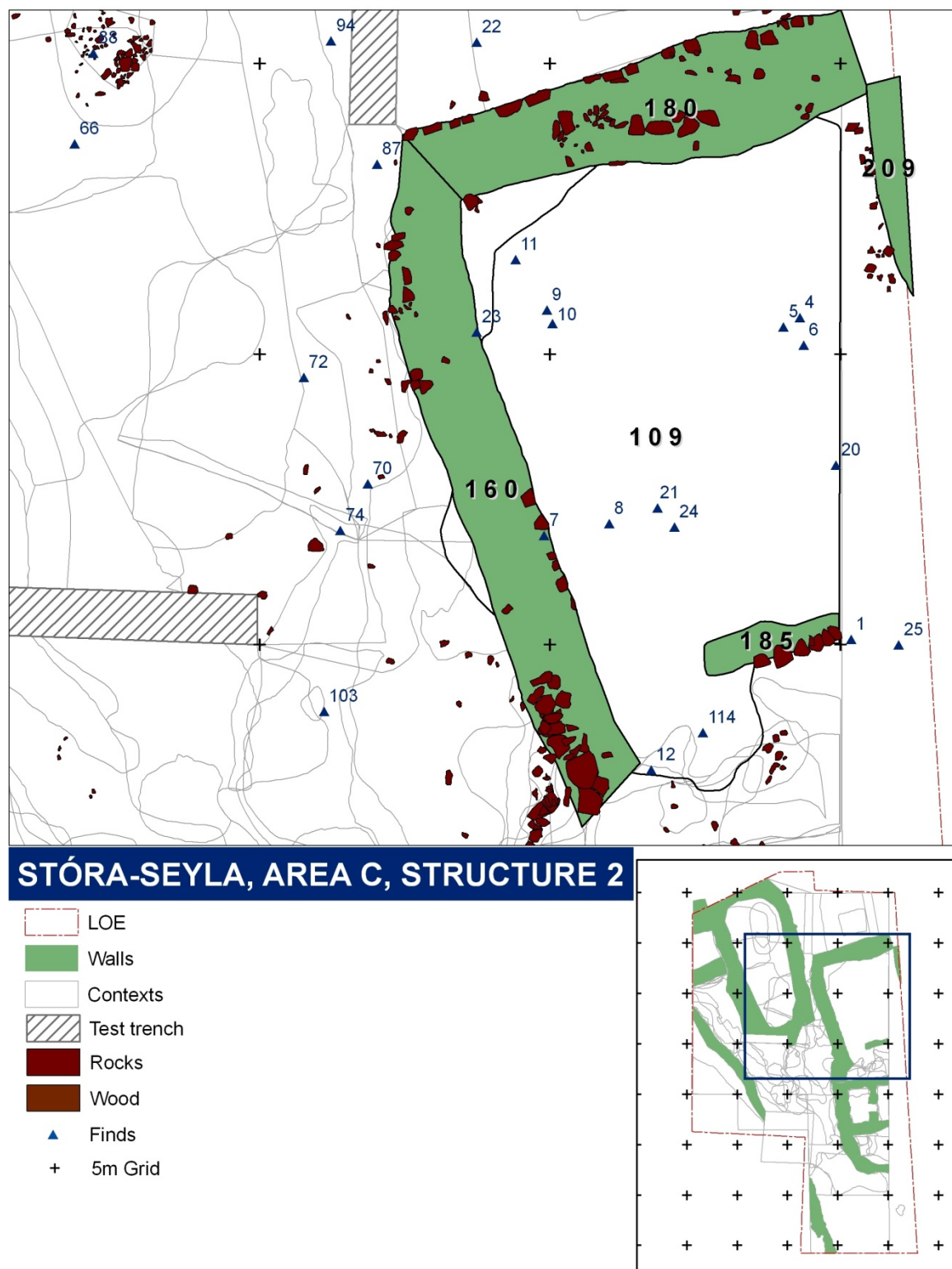
APPENDIX G. AREA C, EXCAVATED CONTEXTS



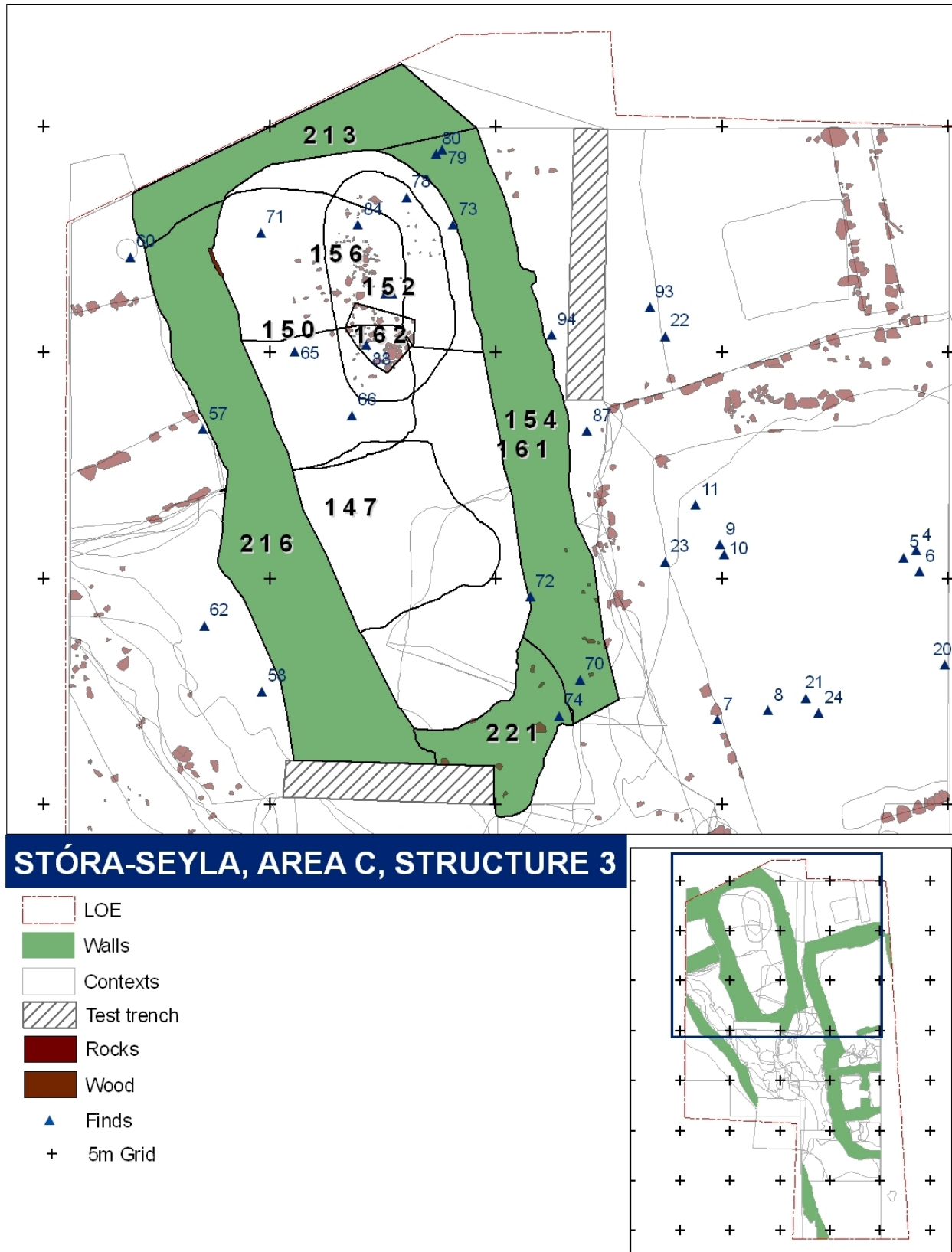
APPENDIX H. STRUCTURE 1, EXCAVATED CONTEXTS



APPENDIX I. STRUCTURE 2, EXCAVATED CONTEXTS



APPENDIX J. STRUCTURE 3, EXCAVATED CONTEXTS



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