

# Under The Glacier

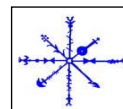
2014 Archaeological investigations on the fishing station  
at Gufuskálar, Snæfellsnes



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FS575-08235  
Reykjavík 2015



GHEA



Forsíðumynd/ Front cover  
*Drónamynd tekin á síðasta degi uppgrafter 2014©FSÍ*  
*/A drone photograph taken on last day of excavation 2014©FSÍ*

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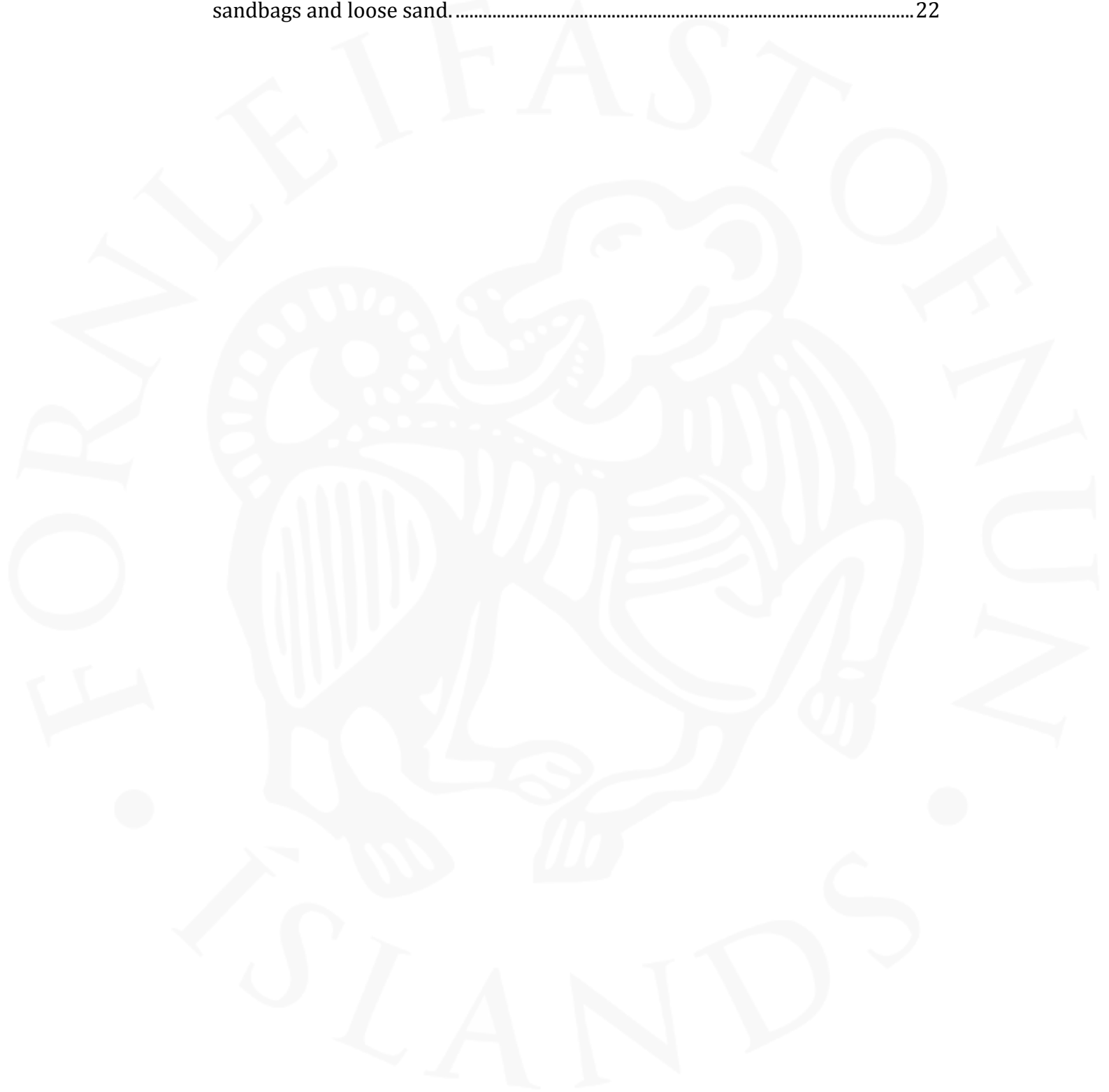






Figure 1 A gaming piece, likely chess piece found in room 1025

## Samantekt á íslensku

Frá árinu 2008 hefur farið fram björgunarrannsókn á verstöðvarminjum á Gufuskálum. Sumarið 2015 var haldið áfram með styrk frá National Science Foundation og Fornminjasjóði.

Áður hefur rannsóknin fengið styrki frá Fornleifasjóði, Þjóðhátíðarsjóði, National Geographic Explorers club og Þjóðgarðinum Snæfellsjökli auk National Science Foundation og Fornminjasjóði.

Að rannsókninni koma nokkrir aðilar: Fornleifastofnun Íslands, City university in New York, Stirling university, Skotlandi og Þjóðgarðurinn Snæfellsjökull.

Árið 2014 var uppgrefti haldið áfram á verbúðarsvæði 9 en frá árinu 2012 hefur áhersla verið lögð á að grafa fram það sem talið var verbúð og er tímasett til 15. aldar. Grjóthlaðnir veggir hennar sáust í rofi árið 2011 en við rannsóknina hefur komið í ljós að hluti elsta byggingarstigs verbúðarinnar er illa farinn vegna rofs. Sá hluti sem ekki hefur orðið fyrir barðinu á landbroti og vindrofi er hinsvegar afar vel varðveittur og mun gefa góða mynd af byggingu og herbergjaskipan 15. aldar verbúðar. Verbúðin sem nú hefur verið til rannsóknar er þó einungis einn hluti af fleiri verbúðum sem standa þétt við þessa, virðast samtíða og mynda þar af leiðandi eina heild einskonar verbúðarþyrpingar.



Figure 2 E. Charm, D. Dubé, A. Norwood and R. De Loggins working in extended area



Í sumar var grafið upp elsta byggingarstig verbúðarinnar og kom í ljós að um er að ræða mun stærri og flóknari byggingu en síðar varð. Ekki náðist að fullgrafa allar minjar á rannsóknarsvæðinu að þessu sinni en ætlunin er að ljúka því sumarið 2015. Komið var niður á a.m.k. fimm hús eða herbergi og liggja tvenn göng í allri byggingunni að húsunum. Stærð og fjöldi húsanna kom mjög á óvart en ef litið er til allra þeirra mannvirkja sem liggja við ströndina og teljast til verbúðarminja og þeirra gríðarmiklu mannvistarlaga sem er að finna á Gufuskálum stemmir stærð húsanna vel við þann fjölda fólks hefur væntanlega þurft að hýsa á meðan á vertíð stóð. Ýmsir gripir fundust við uppgröftinn, þar á meðal nokkrir taflmenn auk hnífa með fagurlega skreyttum skeftum úr beini. Þær upplýsingar sem þegar hafa fengist við rannsóknina eru ómetanlegar heimildir um umhverfisbreytingar og viðbrögð við þeim en þó aðallega sjósókn og stækkandi hlutverk útgerðar á Íslandi á 15. öld.

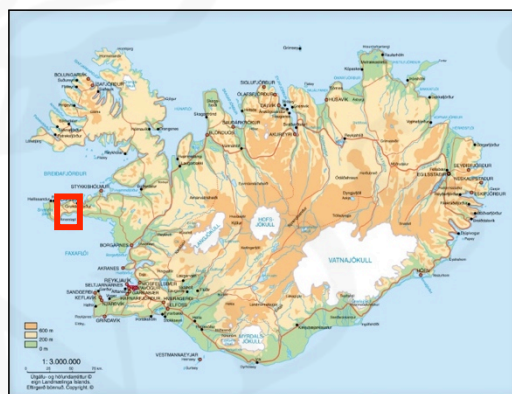
## Summary in english

The site of the fishing station Gufuskálar is located on the northern side of the western tip of Snæfellsnes peninsula in the West of Iceland. It sits at the shore of the Atlantic Ocean which causes a major threat to the site. A dominant feature in the landscape is the cone-shaped 1446m high glacier Snæfellsjökull, known by many from Jules Verne's book "A Voyage to the Centre of the Earth". Underneath the glacier is a volcano, which has shaped the surrounding area with several lava flows, the last one 1750 years ago.<sup>1</sup>

Archaeology is abundant at Gufuskálar with two main mounds made up of structures and midden material right by the seafront along with a cleared landing spot. A little further inland are two farm mounds and at least 47 other structures, which most likely are fishing booths, þurabúðs,<sup>2</sup> and other structures related to the fishing station. In a lava field East of Gufuskálar are 154 small, oval shaped structures made of lava stone. They are commonly believed to be for drying and storing fish.

Samples taken during the 2008 assessment were used for C14 dating and the results indicate the fishing stations time span might be longer than previously thought.

Following assessment in 2008, when four erosion scars were cleaned back and sections drawn, an archaeological excavation took place in 2011. The focus within the site was on the two main mounds by the sea, which are under threat by active marine and wind erosion. Based on work done in 2008<sup>3</sup>, four trenches (Tr. Nr. 5,6,7 and 8) were placed in the most eroded areas of the two mounds. A new topographic survey was done on the two mounds but also on other visible structures such as the farm mounds and alleged þurabúðs. In total, an area of about 7.2 hectares was



<sup>1</sup> Thor Thordarson and Ármann Höskuldsson. 2002.

<sup>2</sup> Þurabúð is a house close to a fishing station. It has no land and the occupants live mainly off fishing all year round.

<sup>3</sup> Lilja B. Pálsdóttir. 2009.

covered and around 47 structures mapped in.<sup>4</sup> In 2014, work continued in trench 9. A topographic survey was also done on the two mounds as well as the erosion faces. A grant from Fornminjasjóður was awarded to do a field survey of the farm of Gufuskálar. A report<sup>5</sup> with results of that work has been published and is available on [www.instarch.is](http://www.instarch.is).

This investigation has been made possible with grants from the National Science Foundation (NSF OPP Arctic Social Sciences 1202692) and the National Geographic Explorers Club, The National Anniversary fund, the Archaeology fund and the National Park Snæfellsjökull. Special thanks go also to Sæmundur Kristjánsson at Rif, Skúli Alexandersson at Hellissandur and Þór Magnússon at Gufuskálar, for valuable information, kind support and interest in the project. Last but by no means least we would like to thank Guðrún Lára Pálmadóttir for her support and help. Thanks go also to the Icelandic Forest Service for permission to conduct the investigations within the Gufuskálar farm.



**Figure 3 The 2014 Gufuskálar team. Cameron, Scott, Ellie, Tom, Dorotheé, Alexandra, Ceecee, Regan, Lilja. Missing on the picture are Frank, Tom Ryan and Ian.**

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<sup>4</sup> Pálsdóttir. 2011.

<sup>5</sup> Þórsdóttir, 2014

## Introduction

The fieldwork at Gufuskálar took place during 4 weeks excavation season, between June 10th and July 6th 2014. This archaeological investigation is a collaboration of several institutions:

Fornleifastofnun Íslands (FSÍ), City University of New York (CUNY), Stirling University, Scotland and the National Park of Snæfellsjökull. It is a GHEA project (<http://Gheahome.org> -Ghea: Global Human Ecodynamics Alliance) and NABO ([Http://nabohome.org](http://nabohome.org) –North Atlantic Biocultural Organisation).

The investigation was directed by Lilja Björk Pálsdóttir (FSÍ) with assistance of an international team consisting of Frank Feeley (Cuny), Prof. Ian Simpson (Stirling), Cameron Turley, Scott Schwartz, Ellie Charm, Tom Ryan, Grace Cecario, Regan De Loggans, Dorotheé Dube and Alexandra Norwood.

## Aims and methods

The aim of the archaeological investigation is to further understand the archaeological remains through intrusive and non-intrusive methods.

A topographic survey of the eroding mounds by the sea makes it possible to monitor the rate of erosion. The two mounds were therefore surveyed topographically, along with two farm mounds a little further inland. The investigation is primarily a rescue investigation and therefore the most vulnerable areas were targeted for trenching in order to obtain information otherwise threatened by erosion. These are the areas that are most affected by the marine erosion. The targets of the excavation included material for radiocarbon dating (C14), bones and material culture from the midden deposits seen in sections.

The excavation was carried out using the single context planning and recording system developed by MOLAS but adapted for Icelandic archaeology<sup>6</sup>. A machine was used to remove overburden in trench 11 but apart from that, all trenches were hand dug. Contexts formed the main unit of recording and were excavated stratigraphically, in sequence, within excavation areas. Cultural deposits were sieved 100 % using a 4 mm size mesh. Each find, environmental sample and record is related to the unit that it was found within or taken from.

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<sup>6</sup> Spencer 1994; Lucas 2003; <http://instarch.is/utgafa.htm>



## Results

**Trench 9** 64°54'05.13N 23°56'37.51W



**Figure 3** Structure 1213 on the right and 1214 starting to appear on the left as seen from south west

This summer, an extension was made to the research area by moving the limit of excavation further north by c. 6 meters, i.e. to an erosion face on the north side (site north). The limit of excavation to the north was extended because of walls that seemed to be running north of the previous limit of excavation and stone collapse that could be seen outside of the LOE. These two walls turned out to be several, forming at least seven rooms as well as two corridors connecting them.

The remainder of structure [1213] was excavated to reveal the new structure [1214].



## Structure 1213



Figure 4 A kite photograph of structure 1213 taken by Sigurður Einvarðsson. Looking south

In all, three complete rooms were discovered during the three years that took from uncovering the booth until it was fully excavated. It underwent several changes with walls being re-enforced, rebuilt and added to, entrances sealed off and new ones made. Whether each of those changes were made in between fishing seasons is difficult to say with certainty but there are strong indications that there was seasonal occupation of the structure. Floor deposits were quite thin, with Aeolian sand separating floors. The sand could also be due to accumulation between fishing seasons as it fell from the turfy roof on to the floors. In either case, it is a matter of seasonal occupancy.

The following results are of the earliest phases of the structure but for information on later phases see reports from previous years.<sup>7</sup>

<sup>7</sup> Under the glacier: FS512-08233 and FS539-08234.

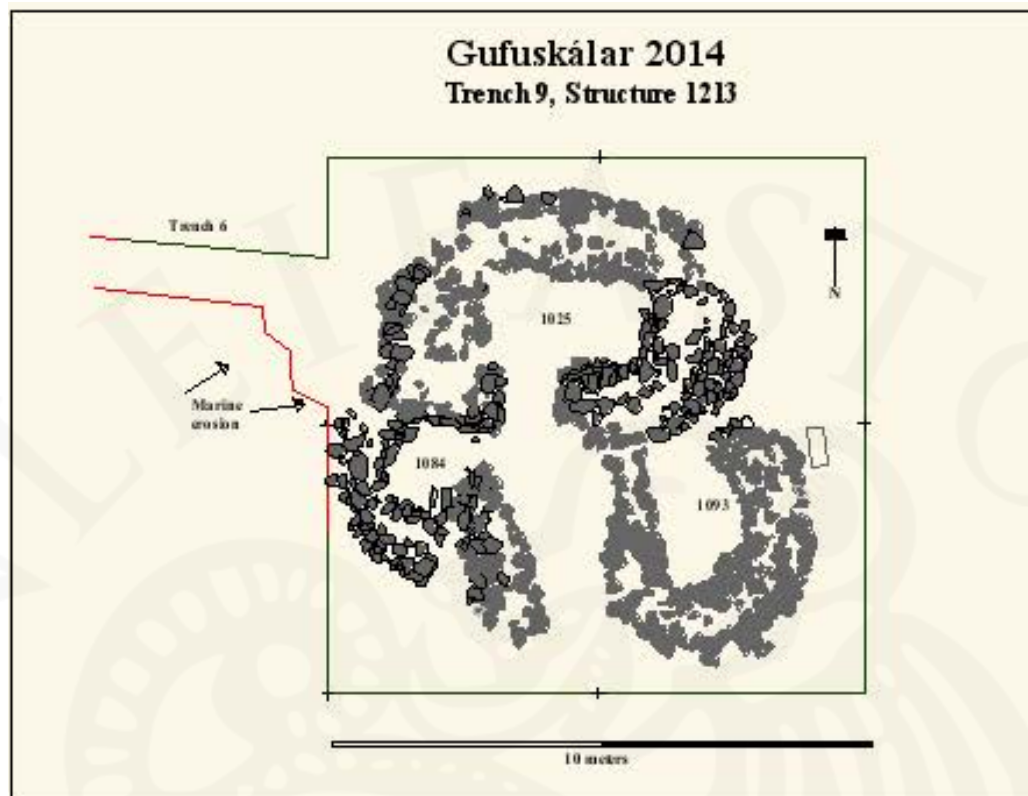


Figure 5 Structure 1213

### Group 1025

This room went through the least changes of all the rooms of the fishing booth. It was built using walls of earlier structures on the W- and N-sides. The previous walls were [1216] and [1217] of which structure not much else remains. The final occupancy deposits were excavated this summer with some very interesting finds, supporting the assumption of this room being used for sleeping as well as recreational activities. A hearth [1171] was excavated in the west corner next to the doorway but no other features were found inside the room. The last deposit to be removed from this room was a thick leveling layer, which had been put directly on top of earlier structures.



## Group 1084



Figure 6 Room [1084] with stove on bottom left. Entrance to the right

This room was used for cooking. A small stone built stove was built up against the south wall. This stove was rebuilt several times; including moved forward when the room was made smaller by moving the south wall. Thick floor deposits mostly made up of peat ash and charcoal were within the room and running out into a corridor (see fig. 5). This room had been sealed off and filled with stones when the corridor [1026] was repaired and lengthened.<sup>8</sup>

As work stopped in 2013 it was not clear whether this room had originally extended further west.<sup>9</sup>

In 2014 this earliest phase was fully excavated and no sign of an entrance or extension was visible to the west. As can be seen on fig. 6 the wall was complete.



Figure 7 West wall of the room. White sandbags in front to keep the wall in place as it is on the erosionline.

<sup>8</sup> Under the glacier, FS512-08233, p. 25.

<sup>9</sup> Same, p. 15.

### Group 1093

This room was fully excavated in 2013. Results on this room can be seen in report from the 2013 season.<sup>10</sup>

### Group 1026

The corridor was fully excavated in 2013.<sup>11</sup>

### Structure 1214



Figure 8 Limit of excavation and extension on the left (site north). Red indicates the erosion line as it was at the end of excavation in 2014.

After all deposits and accompanying walls of structure 1213 had been removed, new walls and wall collapse became visible. These were partly within an extension of the research area but reached under structure 1213. As can be seen on fig. 7 these new structures all seem to be connected, although the rooms are not all contemporaneous. They are squarer than the later structure and seem to be made up of more rooms. The fireplaces are stone built which is also different from the younger structure as well as peat ash, which is found in much more quantity and quality, according to Dr. Ian Simpson<sup>12</sup>. Another differing feature in this structure from the younger one is that it seems to have had a permanent roof. Post pads have been found in the rooms and thin turf collapse, which resembles collapsed roof turf, was on top of the floors in rooms that had not been built on at a later time.

<sup>10</sup> Under the glacier, FS512-08233

<sup>11</sup> Same

<sup>12</sup> Personal communication, 2014.





Figure 9 (left) Turf collapse being uncovered, most likely part of roof structure.

Figure 10 (right) Structure 1214 being uncovered



Figure 11 Uncovering structure 1214

## Group 1146



Figure 12 Room as seen from north

This room is only partly within the limit of excavation. It had stone collapse within it and a very thin, spotty floor. This could be due to the floor being largely on top of the bedrock, making floor accumulation less. As the bedrock is not level but concave, stones have been put down for floor leveling. An entrance to the room is on the east side from a corridor [1215]. This entrance was blocked at a later time but it is unknown whether another entrance is to the room as it may be outside of the excavation limits.

No other features were found within the room and most of the deposits formed part of the post-abandonment phase, collapse and windblown material.

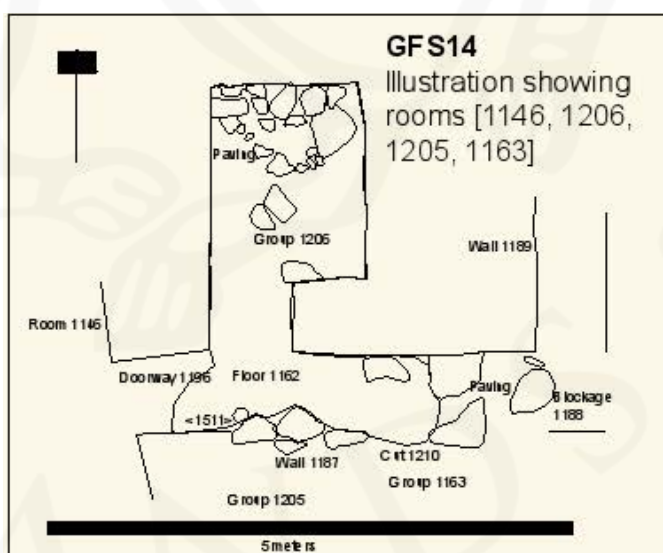


Figure 13 [Right] A schematic illustration of corridor [1215] and associated rooms

Figure 14 (left) Blocking of corridor [1215] at eastern end into room [1146]



## Group 1206/ 1163

This room was the most complete of this new structure. It had an entrance on the south side, from corridor [1215]. Some rebuilding had taken place on the walls of this room, but not so that the floor plan changed much within it. The room had a substantial fireplace with series of peat ash burning and charcoals. The floors were even and thick, much more so in comparison to floors of structure [1213]. Some paving stones are at the north end as well as post pads. This room was not fully excavated this year but samples were taken from floors and hearth.



Figure 15 Room as seen from south

Figure 16 Hearth after sampling





## Group 1215



Figure 17 A drone photograph showing the corridor [1215]

The corridor runs from east to west over the extended area. It starts on the east side just within the limit of excavation and runs to the west, ending at an entrance into room [1146].

Part of it is paved with flagstones. It had been blocked at the east end, as well as into room [1146].

## Group 1205



This room had been severely truncated to the north like the earlier [1163] (See fig. 9 for position). Floor deposits were cut on the north side, thereby making it impossible to determine how the room relates to corridor [1215] and other rooms. As it was truncated, wall [1187] was built into the cut, sealing off what was left of the room.

Figure 18 Blocking of entrance into room [1205].

## Group 1163

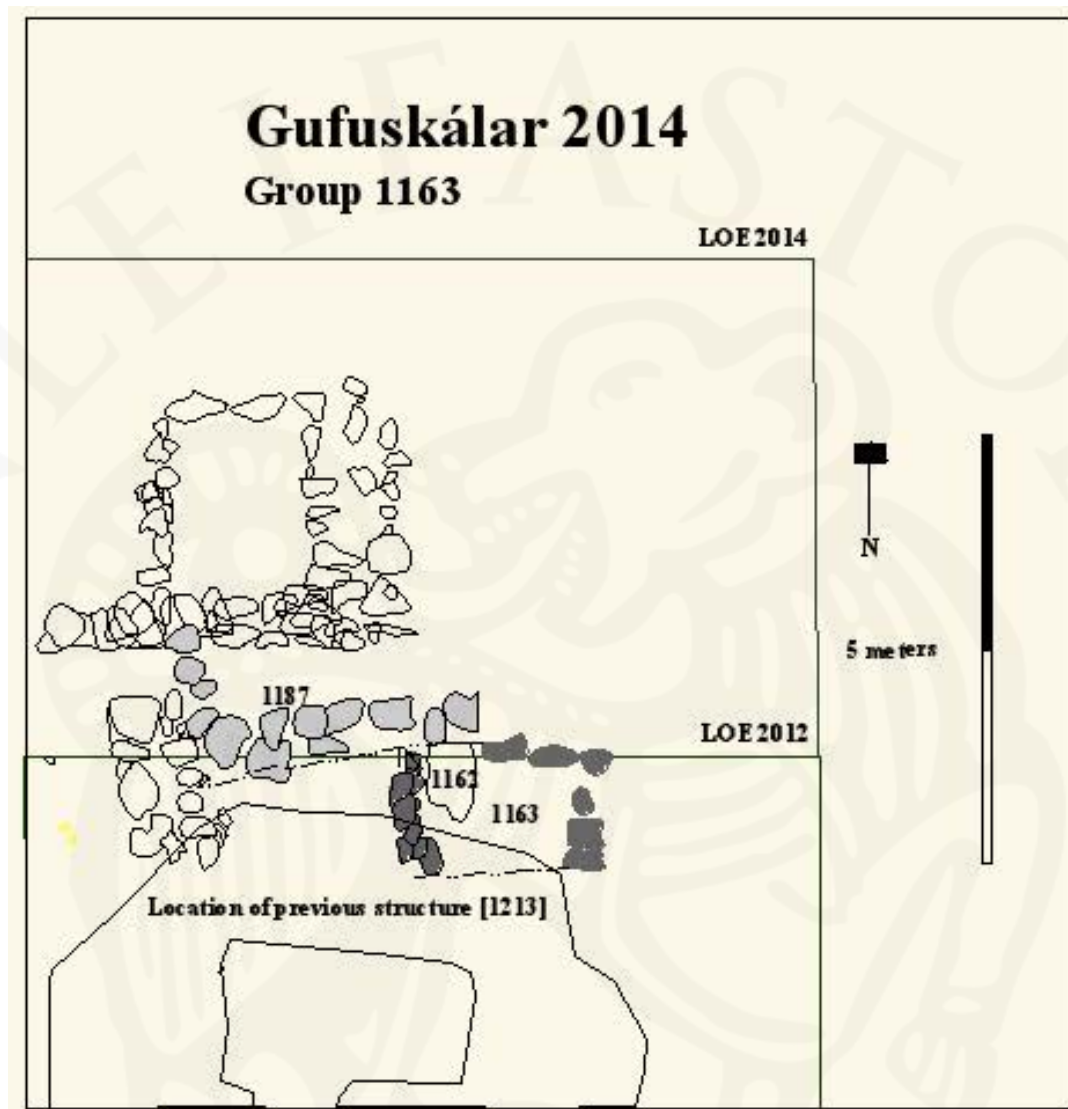


Figure 19 Group [1163].

This small group contains a wall fragment and a floor but is badly truncated by later constructions. To the north, it has been cut for the making of later wall [1187] and same goes for the south part which has been truncated when later structure, [1213] was built. Only a very thin, yet distinct able, charcoal rich floor [1162] was found and excavated.

## Finds

The nature of the finds assemblage this season did not change from previous years. The most numerous finds were iron nails and rivets and thin sheets of cooper alloy. Several gaming pieces were added to the collection and although most of them seem homemade and possibly whittled on site, a few of the pieces are likely imports. Fish hammers and line sinkers were another numerous category as well as the ceramics. The number of finds is much greater than was expected in the beginning of the excavations at Gufuskálar and it is clear that it will take time to go through them properly. All finds were repacked after the season and Jannie Ebsen treated finds in need of conservation.





As the season came to an end, occupational deposits were found all over the excavation area. The SE-corner seemed more filled with windblown sand but midden deposits sealed the sand. The midden was left unexcavated.

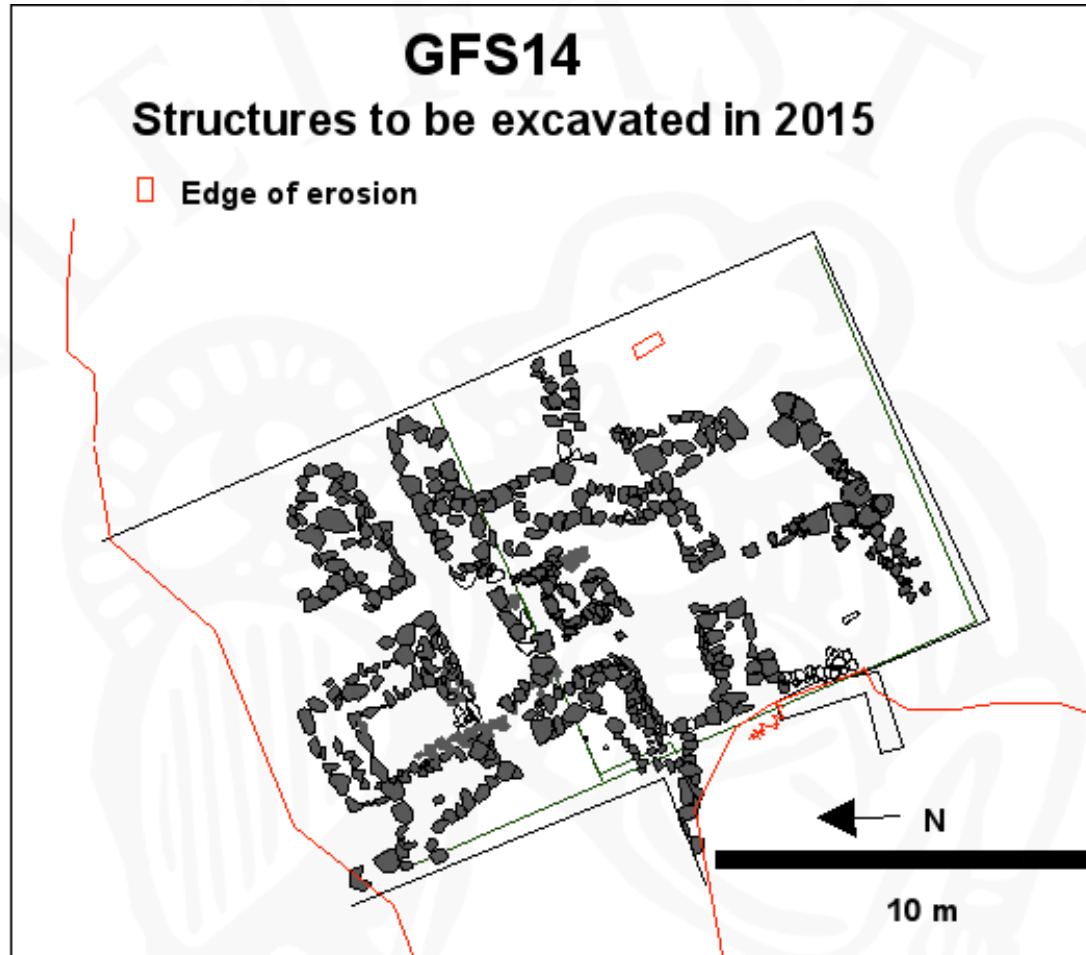


Figure 20 Structures that were left in 2014 to be excavated in 2015. Red lines show the erosion line at the end of excavation in 2014.

The archaeology was prepared for the winter using the same method that had proven to be adequate in previous times. To support standing walls, sandbags were stacked up against the walls and floors were covered with layers of sandbags. Spaces with very high walls were also filled with loose sand.



Figure 21 Drone photograph from the last day at site, after closing it up with sandbags and loose sand.



## Appendices

GFS14 Unit register				
Number	Area	Type	Group	Description/Information
1143	T9 ext.	D		Stone collapse in extension
1144	T9	D		Stone wall
1145	T9	D		Wall fill of western erosion face
1146	T9 ext.	Gr		Possible room at the w-side of area
1147	T9	D		Potential floor layer (W)
1148	Void			
1149	T9 ext.	D		Turf collapse with stones within structure
1150	T9 ext.	D	1146	Floor
1151	T9	D	1153	Floor
1152	T9	D		
1153	T9	Gr		
1154	T9	D	1153	Hearth deposit
1155	T9 ext.		1146	Bedrock
1156	T9 ext.	D	1146	South wall of [1146]
1157	T9	D	1153	Wall collapse (stone)
1158	T9	D		Western wall plug on erosion face
1159	T9	D	1146	Southern wall collapse
1160	T9	D		Very truncated western room
1161	T9	D		Hearth in western part along erosion face
1162	T9 ext.	D	1163	Floor deposit in [1163]
1163	T9 ext.	Gr		Group nr. For room in extension
1164	T9	D		North entrance to room [1025]
1165	T9	D	1146	Possible wall collapse, south of [1146]
1166	T9 ext.	D		Stone blocking and backfill of room
1167	T9 ext.	Gr		Group nr. For blocked off room
1168	T9	D	1025	Floor layer at south exit to doorway [1164]
1169	T9	D	1169	Hearth deposit within east corridor
1170	T9	D	1025	Series of turf fill from inside wall build
1171	T9	D	1025	Expedient hearth
1172	T9	D	1153	Hearth
1173	T9 ext.	D	1146	East wall of room [1146]
1174	T9	D	1025	Stones of hearth
1175	T9	D		Wall north of [1025] running S/N connecting to 2014 ext.
1176	T9 ext.	D		Hearth of corner
1177	T9 ext.	D	1146	North of wall [1146]

1178	T9	D	1153	Floor
1179	T9	D	1153	Hearth
1180	T9 ext.	D	1146	Possible structural collapse or wall rebuild
1181	T9	D		Midden/dump
1182	T9	D		Remnant of wall over peat ash expands north east of [1025]
1183	T9	D	1153	Collapsed wall
1184	T9	D	1153	Sand layer
1185	T9	C	1153	Hearth cut
1186	T9	D	1153	W. Wall kitchen
1187	T9	D		Wall north of [1169], south of [1162]
1188	T9 ext.	D		Eastern wall at room entrance
1189	T9 ext.	D		Short wall running North/south
1190	T9	D	1153	South wall
1191	T9	D	1025	Curtain wall abutting kitchen wall.
1192	T9	D		Midden in sw portion of T9
1193	T9	D		Trampled midden (possible outside area)
1194	T9	D		Trampled midden above [1194]
1195	T9	D		White sand, windblown
1196	T9	D		Doorway between [1162] + [1146], behind [1187]
1197	T9	D	1025	Possible thin lava stone paving (east side)
1198	T9	D		Trampled midden w/structural collapse
1199	T9	D		Ext. Wall of north
1200	T9	G		Floor of [1162] connects n,s,w
1201	T9	D		Structure at trench south
1202	T9	D		Paving north of [1201] at south
1203	T9	D		Peat ash floor deposit
1204	T9	D		Basal midden
1205	T9	G		Contains [1203], [1169], [1182], [1187], [1164]
1206	T9	G		Groupnr. For room S of corridor NE
1207	T9	D		Possible outside area (east side)
1208	T9	D	1207	Midden dep. In 1207
1209	T9	D	1205	Possible hearth
1210	T9	C		Between groups [1200] and [1205]
1211	T9	D	1205	Floor beneath peat ash/hearth running to [1210]
1212	T9	D	1205	Sandy fill above [1211] and below [1169]
1213	T9	G		Group nr. For youngest phase of "fishing booth"
1214	T9	G		Group nr. For "new structures"
1215	T9	G		Group nr. For corridor
1216	T9	D		Walls reused for [1213]
1217	T9	D		Walls reuse for [1213]

1218	T9	D		Blocking event, part of [1187]
1219	T9	D		Backfill of entrance, part of blocking event [1166]
1220	T9	D		Paving under [1170] leveling

GFS14 Sample register					
Number	Area	Context	Quant. Bags	Description	Date
109	T9 ext.	1150	1 L bag	Archaeobotanical	12.06.14
110	T9 ext.	1150	1 L bag	Entomology	12.06.14
111	T9 ext.	1150	1 s bag	Chemical	12.06.14
112	T9	1151	1 L bag	Archaeobotanical	13.06.14
113	T9	1154	1 L bag	Archaeobotanical	13.06.14
114	T9	1154	1 s bag	Chemical	13.06.14
115	T9	1154	1 L bag	burned compacted bone	14.06.14
116	T9	1154	1 s bag	Chemical	14.06.14
117	T9	1154	1 s bag	C14	14.06.14
118	T9	1172	1 s bag	Chemical	18.06.14
119	T9	1172	1 L bag	hearth material	18.06.14
120	T9	1172	1 L bag	Archaeobotanical	18.06.14
121	T9	1172	1 tin	Micromorphological	18.06.14
122	T9 ext.	1162	1 L bag	Archaeobotanical	19.06.14
123	T9 ext.	1162	1 L bag	Entomology	19.06.14
124	T9	1169	1 L bag	Entomology	19.06.14
125	T9	1169	1 L bag	Floor dep.	19.06.14
126	T9	1171	1 s bag	Tephra sample	18.06.14

	<b>GFS14 Finds register</b>			
<b>Number</b>	<b>Area</b>	<b>Context</b>	<b>Material</b>	<b>Description/Information</b>
1364	T9	1144	CU	Rectangular CU piece
1365	T9	1143	CU	Small CU pieces
1366	T9	1144	CU	Nail
1367	T9	1144	Fe	iron nail
1368	T9	1144	Fe	Iron artifact
1369	T9	1145	Ceramic	Ceramic
1370	T9	1147	Bone	Biperforated metapodial
1371	T9	1147	Fe	Iron artifact
1372	T9 ext.	1143	Fe	Object
1373	T9	1147	Ceramic	Ceramic
1374	T9	1144	Stone	Line sinker
1375	T9	1147	Fe	Artifact
1376	T9 ext.	1143	Stone	Whetstone?
1377	T9 ext.	1146	Ceramic	Ceramic
1378	T9	1147	CU	Object
1379	T9	1145	Fe	Rivet and rove
1380	T9	1147	Fe	Object
1381	T9 ext.	1146	Cu	Cu pieces
1382	T9 ext.	1146	Stone	Flint
1383	T9 ext.	1146	Fe	Object
1384	T9 ext.	1146	Bone	Ivory, Decorated
1385	T9 ext.	1143	Cu	Copper alloy sheet
1386	T9	1147	Fe	Objects
1387	T9		Bone	Haddock cleithrum, chess piece
1388	T9 ext.	1150	Stone	Whetstone
1389	T9 ext.	1146	Cu	
1390	T9 ext.	1146	Fe	Iron object
1391	T9 ext.	1146	Bone	Ivory
1392	T9 ext.		Stone	Line sinker
1393	T9 ext.	1150	Cu	Copper pieces
1394	T9 ext.	1150	Fe	Iron pieces
1395	T9 ext.	1150	Cu	Copper object
1396	T9 ext.	1150	Cu	Copper object
1397	T9 ext.	1150	Fe	Iron object
1398	T9 ext.	1150	Fe	Iron object, all pieces from same object
1399	VOID	VOID	VOID	VOID
1400	T9	1151	Ceramic	Bottle neck
1401	T9	1147	Cu	Object
1402	T9	1147	Fe	Iron pieces
1403	T9 ext.	1149	Bone	Fish vertebrae

1404	T9 ext.	1150	Cu	Copper pieces
1405	T9	1154	Stone	Net sinker re-used as hearth stone
1406	T9	1150	Fe	Iron objects
1407	T9	1150	Fe	Iron object
1408	T9	1154	Fe	Iron object
1409	T9	1154	Fe	
1410	T9	1154	Fe	
1411	T9	1170	Bone/Fe	Knife blade/ bone handle
1412	T9	1147	Fe	Objects
1413	T9	1169	Stone	Whetstone
1414	T9	1154	Bone	Worked bone object
1415	T9	1170	Fe/bone	Knife with decorated handle
1416	T9	1170	Bone	Perforated metapodial
1417	T9	1172	Fe	Rove
1418	T9	1170	Fe	Nail
1419	T9	1173	Fe	Iron object
1420	T9	1175	Cu	Copper object, burnt?
1421	T9	1168	Fe	Objects
1422	T9	1168	Cu	Objects
1423	T9	1157	Wood	Charcoal
1424	T9	1171	Lead	Object
1425	T9	1171	Fe	Rivet and rove
1426	T9	1170	Bone	Chess piece
1427	T9	1170	Fe	Object
1428	T9	1170	Fe	Object
1429	T9	1170	Fe	Object
1430	T9	1170	Fe	Object
1431	T9	1170	Fe	Object
1432	T9	1170	Fe	Object
1433	T9	1170	Fe	Object
1434	T9	1171	unknown	Unknown
1435	T9	1170	Ceramic	Sherd
1436	T9	1171	Stone	Polished
1437	T9	1170	Fe/bone	Iron object with bone
1438	T9	1178	Fe/bone	Iron object with bone
1439	T9	1025	Fe	Object
1440	T9	1025	Fe	Object
1441	T9	1025	Fe	Object
1442	T9	1025	Fe	Object
1443	T9	1025	Fe	Object
1444	T9	1168	Fe	Lump
1445	T9	1168	Fe	Lump
1446	T9 ext.	1162	Cu	Copper object
1447	T9 ext.	1146	Cu	Copper object
1448	T9 ext.	1146	Fe	Iron object
1449	T9 ext.	1146	Fe	Iron object

1450	T9	1182	Ceramic	Sherd
1451	T9	1178	Fe	Iron object
1452	T9	1157	Fe	Iron objects
1453	T9	1186	Bone	Biperforated metapodial
1454	T9 ext.	1162	Stone	Line sinker
1455	T9	1186	Ceramic	Green glazed sherd
1456	T9	1186	Fe	Iron object
1457	T9	1152	Stone	Sinker
1458	T9	1183	Stone	Flint nodule, giant.
1459	T9	1183	Stone	Flint, flake
1460	T9	1183	Ceramic	Sherd
1461	T9	1183	Stone	Fish hammer
1462	T9	1147	Bone	Whale vert. Chopping block
1463	T9	1147/1158	Stone	Stone
1464	T9	1151	Ceramic	Sherd
1465	T9	West wall fill	CU	Sheet
1466	T9	1144	Ceramic	Sherd
1467	T9	1150	CU	Sheet
1468	T9	East wall fill	Fe	Nail
1469	T9	1169	Stone	Whetstone
1470	T9	1183	Fe	Object
1471	T9	1162	Fe	Object
1472	T9	1164	Bone	Horn core
1473	T9	1151	Fe	Object
1474	T9	East wall fill	Stone	Line sinker
1475	T9	1181	Stone	Line sinker
1476	T9	1146	Cu	Sheet
1477	T9	1179	Ceramic	Sherd
1478				Void
1479	T9	1183	Fe	Object
1480	T9	1178	Ceramic	Sherd
1481	T9	1168	Cu	Sheet
1482	T9	1152	Bone	Biperforated metapodial
1483	T9	1181	Ceramic	Sherds
1484	T9	1152	Fe	Object
1485	T9	1152	Fe	Object
1486	T9	1178	Fe	Object
1487	T9	1152	Cu Alloy	Needle, complete
1488	T9			VOID
1489	T9	1187	Fe	Nail/rivet
1490	T9	1187	Cu	Clothing clasp
1491	T9	1193	Cu	Rolled sheet
1492	T9	1193	Cu	Decorated object
1493	T9	1193	Ceramic	Dark glaze
1494	T9	1193	Stone	Flint flakes
1495	T9	1194	Bone	Horn core



1496	T9	1194	Stone	Worked stone
1497	T9 ext.	1162	Cu	Copper object
1498	T9	1196	Fe	Iron object
1499	T9	1165	Fe	Iron nail
1500	T9	1196	Fe	Object
1501	T9	1197	Cu	Small CU piece
1502	T9	1196	Bone	bone ov.
1503	T9	1196	Fe	Iron object
1504	T9	Unstratified	Stone	Pumice, worked
1505	T9	1194	Fe	Object
1506	T9	1194	Cu	Brooch fragment
1507	T9	1194	Cu	Fragment
1508	T9	1199	Cu	Cu clothes pin
1509	T9	1199	Cu	Cu object
1510	T9	1162	Bone	Worked whale block
1511	T9	1162	Fe	Fish hook
1512	T9	Loose find	Fe	Fe rivet
1513	T9	1162	Fe	Object nail?
1514	T9	1187	Fe	Object
1515	T9	1194	Cu	Object
1516	T9	1194	Cu	Cu object
1517	T9	1187	Fe	Fe object
1518	T9	1193	Stone	Flint, worked
1519	T9	1193	Fe	Nail
1520	T9	1193	Bone	Decorated whale bone
1521	T9	1193	Cu	Object
1522	T9	1193	Bone	Biperforated metapodial
1523	T9	1193	Fe	Object
1524	T9	1203	Cu	Cu object
1525	T9	1193	Fe	Ring/object
1526	T9	1193	Fe	Object
1527	T9	1193	Stone	Flint
1528	T9	1193	Bone	Horn core
1529	T9	1193	Ceramic	Ceramic pieces
1530	T9	1206	Bone	Bone needle
1531	T9	1169	Fe	Object
1532	T9	1169	Fe	Object
1533	T9	1212	Stone	Worked stone
1534	T9	1206	Stone	Line sinker, broken
1535	T9	1206	Fe	Object
1536	T9	1206	Fe	Objects
1537	T9	1206	Stone	Fish hammer, broken
1538	T9	1206	Cu Alloy	Objects, sheets
1539	T9	1212	Stone	Gaming piece
1540	T9	1194	Cu	Sheet fragments
1541	T9	1193	Fe	Object

1542	T9	1198	Fe	Object
1543	T9	1193	Cu	Fragment
1544	T9	1193	Ceramic	Sherd
1545	T9	1206	Stone	Pumice
1546	T9	1203	Bone	Worked
1547	T9	1212	Cu	Object

GFS14 bone register				
Number	Trench	Context	Quant. Of bags	Description/information
GFS14-12-001	9	1171		
GFS14-12-002	9	1183		Group 1084
GFS14-12-003	9	1170		
GFS14-12-004	9	1178		
GFS14-12-005	9	1146		Whale bones
GFS14-12-006	9	1170		
GFS14-12-007	9	1171		
GFS14-12-008	9	1151		
GFS14-12-009	9	1151		
GFS14-12-010	9	1178		
GFS14-12-011	9	1169		
GFS14-12-012	9	1169		Sieved floor deposit
GFS14-12-013	9	1149		
GFS14-12-014	9	1171		C14 sample
GFS14-12-015	9	1143		
GFS14-12-016	9	1131		
GFS14-12-017	9	1178		
GFS14-12-018	9	1151		
GFS14-12-019	9	1152		Single bone
GFS14-12-020	9	1179		
GFS14-12-021	9	1151		
GFS14-12-022	9	1178		
GFS14-12-023	9	1172		
GFS14-12-	9	1204		C14 sample from basal layer of

023				SW corner
GFS14-12-024	9	1193	3L+3M	
GFS14-12-025	9	1194	3L	
GFS14-12-026	9	1187	1 S/M	OVCA skull fragment
GFS14-12-027	9	1212	3M	
GFS14-12-028	9	1203	1M	
GFS14-12-029	9	Redep. midden		Western wall extension
GFS14-12-030	9	1198	2L	
GFS14-12-031	9	Gr. 1205	1L	Whale bone

GFS14 photo register		Direction of camera			Motive Description/Information
Frame	Area(s)	Context(s)			
9897	T9	1144	W		Working shot, wall deconstruction
9898	T9	1144	W		same
9899	T9	1144	S		same
9900	T9	1144	S		same
9901	T9	1144	E		same
9902	T9	1144	E		same
9903	T9	1144	N		Joint between 1144-
9904	T9	1144	N		Joint between 1144-
9905	T9	1144	N		Joint between 1144-
9906	T9	1144	N		Working shot, wall deconstruction
9907	T9	1144	N		Interior 1144
9920	T9	1144	N		Working shot, wall deconstruction
9921	T9	1144	N		Working shot, wall deconstruction
9922	T9	1144	N		Working shot, wall deconstruction
9923	T9	1144	N		Exposing early wall phase
9924	T9	1144	W		Exposing early wall phase
9925	T9	1144	W		Exposing early wall phase
9926	T9	1144	W		Exposing early wall phase
9927	T9	1144	W		Exposing early wall phase

9928	T9	1025	NW	NW corner joint of walls/entrance fill
9929	T9	1025	NW	NW corner joint of walls/entrance fill
9935	T9	1144	W	Working photo of whale (?) bone in situ
9936	T9	1144	W	same
9937	T9	1147	W	West profile of [1147]
9938	T9	1147	SW	West profile of [1147]
9939	T9	1147	NW	West profile of [1147]
9940	T9	1025	N	Collapse from kitchen wall
9941	T9	1025	N	Collapse from kitchen wall
9942	T9	1025	N	Collapse from kitchen wall
9950	T9	1151	N	Floor of gr. 1153 kitchen
9951	T9	1151	E	same
9952	T9	1151	W	same
9954	T9ext.	1150	S	Floor of room , gr. 1146
9955	T9ext.	1150	N	same
9956	T9ext.	1149	W	Turf collapse/laid
9957	T9ext.	1149	W	Close up of turf collapse/laid
9959	T9	1154	S	Hearth working photo
9960	T9	1154	SW	Hearth with wall collapse
9962	T9ext.	1155	S	Bedrock
9963	T9ext.	1155	N	Bedrock
9964	T9	1147	W	Working photo of exposed floor
9965	T9	1147	W	same
9966	T9	1147	W	same
9967	T9	1154/1157	S	Wall collapse over hearth
9968	T9	1154/1157	S	Wall collapse over hearth
9969	T9	1154	S	Hearth with cracked stone exposed
9970	T9	1154/1157	W	Hearth and wall collapse
9971	T9	1159	Overhead	Possible wall collapse (right side of photo is w)
9972	T9	1159	S	Possible wall collapse
9973	T9	1154	SW	Hearth post collapse clearing
9974	T9	1154	SW	Hearth post collapse clearing
9975	T9	1154	S	same
9976	T9	1154	S	same
9981	T9	1150	S	Floor of 1159
9982	T9	1150	N	same
9989	T9	1150	S	Bedrock
9990	T9	1150	N	Bedrock
11	T9	1164	S	entrance to 1025
12	T9	1164	S	entrance to 1025
13	T9	1164	S	entrance to 1025
14	T9	1157	W	Wall collapse
15	T9	1147	Overhead	Fe knife+bone handle
16	T9	1147	Overhead	same
17	T9	1147	Overhead	same

25	T9	1164	N	entrance to 1025
26	T9	1165	S	Wall
27	T9	1165	Overhead	wall (S) @ bottom of photo
28	T9	1165	S	Profile of wall
29	T9	1168	N	Floor under entrance to 1025
30	T9	1168	N	Floor
44	T9/T9ext	1173	Overhead	S is left of photo, wall is east
45	T9	1153	N	Wall collapse
46	T9/T9ext	1173	E	Profile of East wall of 1146
47	T9/T9ext	1173	Overhead	E-wall (middle) of 1146 is left
48	T9/T9ext	1173	E	Profile of E-wall of 1146, S is left
52	T9	1178	N	Floor
53	T9	1178	W	Floor
54	T9	1157	E	wall fill
56	T9ext.	1180	Overhead	Trowel points N, Possible structural collapse
67	T9	1184	W	Floor
68	T9	1184	N	Floor
69	T9	1185	S	hearth cut
70	T9	1185	S	same
71	T9	1185		same
72	T9		W	west wall of 1153
73	T9		E	same
74	T9	1155	N	bedrock in 1146
76	T9	1155	N	same
77	T9	1155	S	same
78	T9	1146	w	profile, strat. Profile, S is left
79	T9	1146	w	same
80	T9	1146	w	same
81	T9	1146	W	same
84	T9	1186	W	Working shot of wall removal
85	T9	1186	N	same
86	T9ext.	1189	W	profile of long north/south wall
87	T9ext.	1189	W	same
88	T9ext.	1189	W	same
89	T9ext.	1189	W	same
90	T9ext.	1189	W	same
91	T9ext.	1189	W	same
92	T9	1187	W	wall
93	T9	1190	S	South wall of 1153
94	T9	1190	W	same
137	T9	1191	S	profile of curtain wall
138	T9	1191	S	profile of curtain wall
139	T9	1187	W	profile of wall
140	T9	1187	W	same
141	T9	1187	W	same

142	T9ext.		E	Working photo of plugged up eastern waal/room
143	T9ext.		E	same
144/146	T9	1194	E, N	midden dump
147/148	T9	1194		Cu brooch
154	T9ext.	1162	W	Extension of floor into 1146
155	T9ext.	1162	N	floor extension into room 1162
156	T9ext.	1162	N	Floor in corridor
158	T9	1162	W	same
159	T9	1162	N	same
160	T9	1198	N	Trampled midden
161	T9	1198	N	Potential structure + trampled midden
164	T9	1202	N	Paving
166	T9ext.	1196	N	Corridor of 1196 north.
167	T9ext.	1196	S	Southern view of corridor 1196
168	T9ext.	1196	W	corridor
169	T9	1208	E	midden deposit from 1207
170	T9	1208	S	midden deposit from 1207
171	T9	1208	w	midden deposit from 1208
172	T9	1208	E	midden deposit from 1209
173	T9	1208	E	midden deposit from 1210
174	T9	1208	N	midden deposit from 1211
175	T9	1209	S	possible hearth
176	T9	1209	S	possible hearth
4800-01	T9	1170	E	packed turf dump under wall
4802	T9	1171	W	Peat ash, possible hearth
4809	T9	1173	E	same
4810	T9	1173	E	Profile of wall in 1146 (s is right)
4812	T9	1173	N	N wall of 1146, E is right
4813	T9	1173	Overhead	N wall of 1146, N is top of photo
4814	T9	1173	E	Profile of E-wall of 1146, s is left
4815	T9	1169	S	Floor west of wall 1175
4816	T9	1169	S	same
4817	T9	1169	S	same
4818	T9	1179	W	Wall dividing floors 1169
4819	T9	1179	W	same
4820	T9	1179	N	same
4821	T9	1179	N	same
4822	T9	1169	W	Floor/hearth
4823	T9	1169	W	Floor/hearth
4824	T9	1169	W	Floor/hearth
4825	T9	1169	W	Floor/hearth
4826	T9	1169	W	Floor/hearth
4827	T9	1169	W	Floor/hearth