Réttir in the landscape

A study on the interactions between humans and animals through sheep-fold monuments

IPY Report on fieldwork - Summer 2008

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Front cover: The large and impressive Hlíðarétt, south of Reykjahlíð.

Summary

This report outlines the research that was conducted over the course of one week in late June, 2008. A total of five *réttir* – sheep folds – were surveyed using a Differential Global Positioning System (DGPS). Each *réttir* displayed a variety of forms, and different uses of local materials, and these results will be used to analyse the typological characteristics of these monuments. Also, it is hoped in the next stage of this research to correlate the sheep numbers for each farm and its district with its contemporary *réttir*. In many ways the activities associated (gathering, sorting, community places, maintenance) with *réttir* bonded communities together – providing a year round community focus – and cemented the important reciprocal relationship between humans and animals. Therefore, the study of réttir are an important avenue of research for understanding how past societies worked as farming communities, and their interactions with environments. Whilst commenting on much of the specific research ideas that are touched on through this study, this report is a provisional one by summarising the fieldwork, but also points towards some future directions in the research.

Acknowledgements

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Introduction

Réttir are seasonally used monuments to sort sheep after collection from the highlands in late summer and autumn (mid-September). They were and continue to be used today as gathering places for whole communities and are consequently a major social event in the seasonal calendar. During the winter months, however, these monuments are exposed to low levels of entanglements by the community who are abided to maintain the monuments in preparation for the next sorting.

Figure 1. Sheep being driven down from the highlands to the lowland.

The *réttir* monuments themselves are composed of three elements: the *dilkur* – individual farm chambers -, as well as a central enclosure and an occasionally an outer enclosure. The *dilkur* are attached to the central enclosure by a gate. The *réttir* come in a variety of sizes, but are essentially of two types: round or rectilinear. Though as this report demonstrates there is great variety within these categories.

The workings of *réttir* are quite simple, and they act almost like central distribution systems. Animals are gathered from the pasture areas by a selection of the community (each farm is represented) and driven done into the lowland areas. They are then taken to the réttir and put into the large holding enclosure – either a cultural constructed one or a naturally formed one. Once the community has gathered together at the *rétt* the animals are bought into the central enclosure and sorted by their markings into the surrounding farm *dilkur*. The animals are then herded back to their respective farms. Several filterings of the animals can take place at different réttir, and this is particularly so for communities that do not have immediate access to highland pasture areas.

To date, very little is known about these monuments, especially archaeologically, but we know that they were an essential part of community life connected animal husbandry activities. However, it is not, for example, known how old the practice is, and if there has been a development of the system and the monuments that were used.

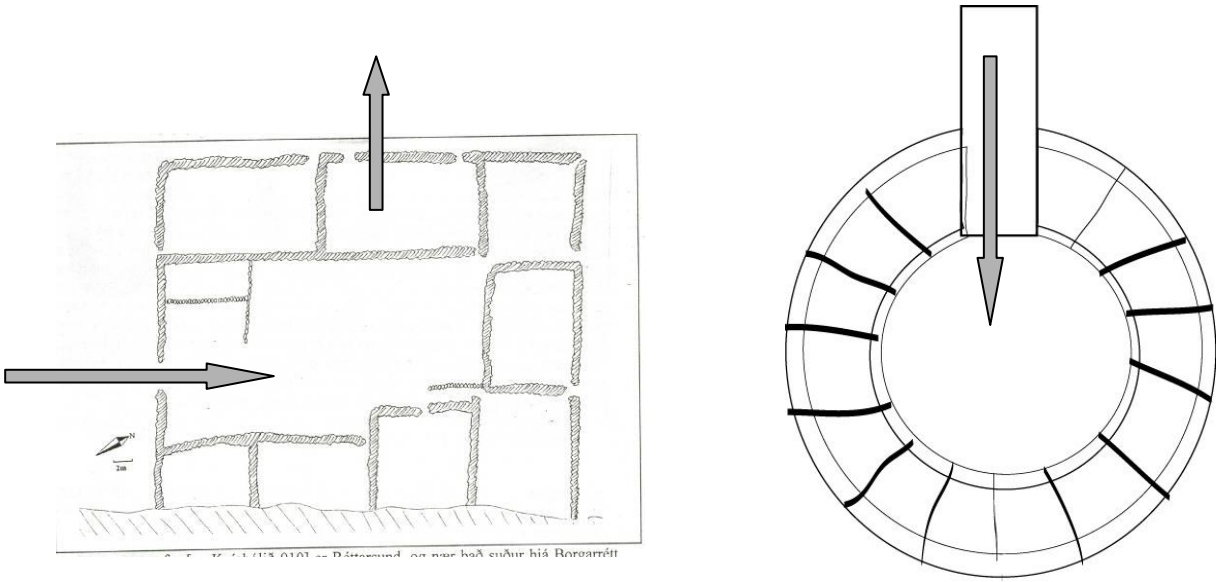

Figure 2. Eyjaförður – Borgarrétt (left) and Gnúpverjahreppur - Skaftholtsrétt (right). Arrows represent the movement of animals into and out of the monuments.

Archaeology and réttir*?*

There are several aspects of réttir which are interesting for archaeologists. Firstly, the spatial layout of the *dilkur* may reflect a practical positioning for transporting sheep, or they represent a symbolic order connected with the surrounding farm landscape. Although episodes of reorganization may have occurred, it is likely that the *dilkur* were not randomly allocated but mirror a social organization of some kind. Secondly, the size of the *dilkur* and their position, as well as the size of the central and outer enclosures, may indicate the wealth or potential wealth of the districts or farms based on the number of animals that it owns. The sizes therefore should indicate the sheep-capacity of the *réttir* for the local community.

These two factors are interesting as proxies for the archaeological faunal record indicating sheep numbers on farms (on a seasonal basis derived from midden layering) and historical documentary sources that indicate the number of sheep on farm, as well as its values. This research will essentially test the idea that size correlates to animal numbers, and sheep specifically in this study. These numbers will be derived from zoo-archaeological assemblages as well as sheep numbers indicated in historical documents.

The case study area

The area around Lake Mývatn, in Suður Þingeyarsýsla is the case study area for this project. The modern landscape is relatively diverse, containing an abundance of farms, and improved locally based grazing areas. Due to volcanic activity, the landscape is constrained to only a few areas of rangeland grazing areas: one to the south of Skúðastaðir in Mývatnsheiði and to another north of Reykjahlíð in Grímsstaðaheiði and Reykjahlíðar. Another is located west of Mývatn and Laxárdalur in Laxárdalsheiði. The area of east of Mývatn is a mixture of desert and lava. However, in all of these areas, the environment and vegetation is likely to have been different than it is today, and will be important in the later analysis to have a wide landscape reconstruction at different times. The three areas that have been identified that serve the local community and are therefore implicated within this study on *réttir*.

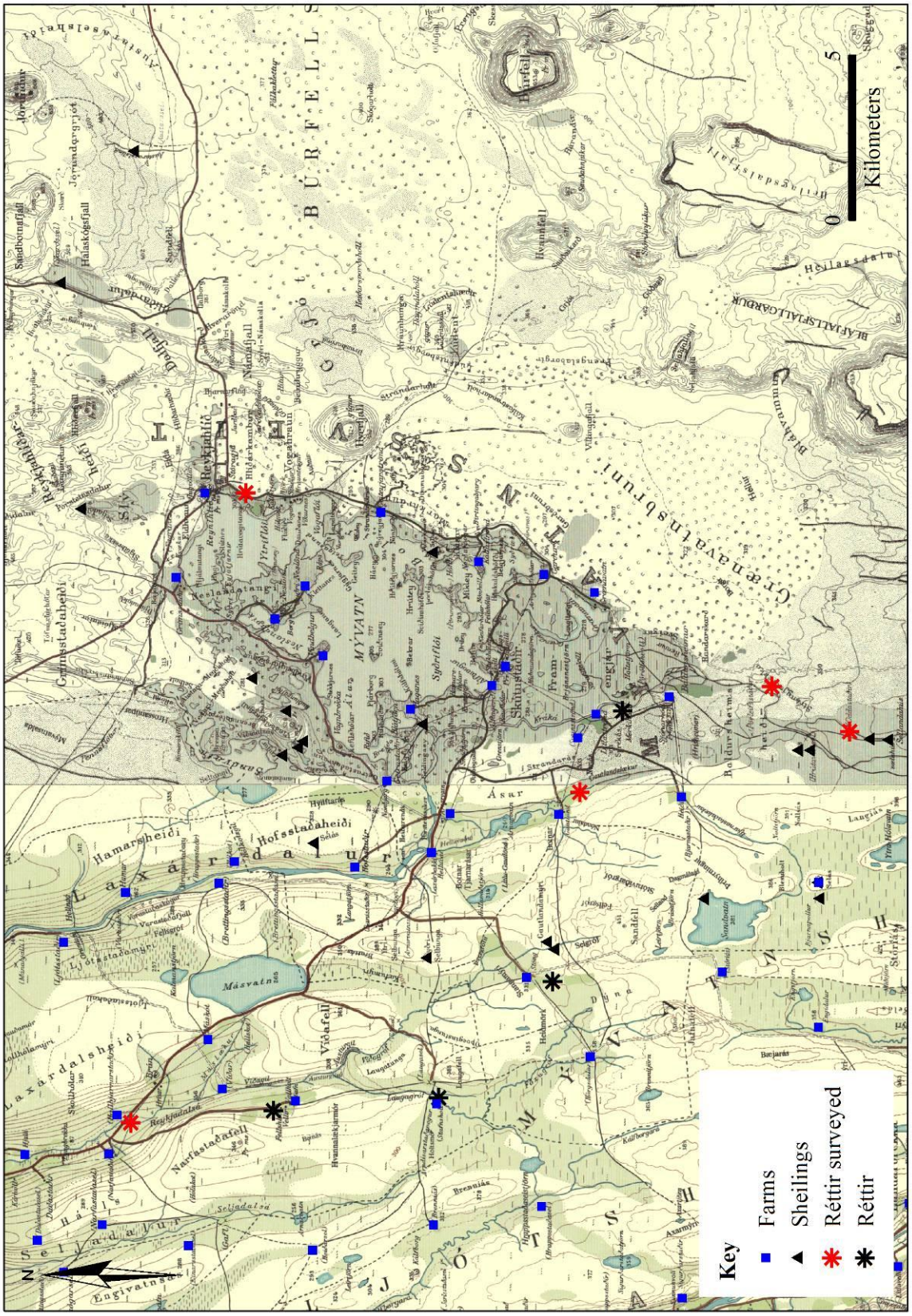

Figure 3. Study area. NB the area west of Mývatn has not been surveyed and therefore the distribution of sheiling sites does not reflect the actual pattern besides the areas located around and east of Mývatn.

Method

Survey

The five *réttir* monuments were surveyed with a Differential Global Positioning System (DGPS). The DGPS allows for centimetre accuracy during the survey. Often known and fixed points were not known, so we had to post-process the location of the base receiver by letting it calibrate. Once the base receiver was fixed and established as a secure point, the rover receiver was initialised and survey could begin. The survey measurement was set to continuous, at an interval of 1 second. A backpack was used onto which the rover was placed. Whilst not the most accurate survey it nonetheless represented the best methodology for the conditions and objectives of the research. The *réttir* were recorded manually as well as digitally surveyed and photographed. The survey was carried out by Oscar Aldred and Christian Koch Madsen.

Figure 4. DGPS survey of Hallbjarnanarétt.

Analysis

The majority of the analysis in accordance with the research aims has yet to be carried out. However, in this preliminary statement what is described are its first stages. Each *rétt* is described in terms of its location in the landscape, its typological characteristics and form. However, the research on the history of the monument, the communities involved in its maintenance and use, and the correlation of the sheep sizes and the enclosure spaces, have all yet to be done.

Aims

In general, the aim of this project is to measure with a DGPS the *réttir* monuments in order to get an accurate measurement of form (enclosures, *dilkur*, and other features) with which to compare the animal numbers and farm values. As a result it is hoped to reflect on the *réttir* as proxies for community sheep-capacities. It will also assess the relationship between the spatial layout of the *dilkur* in relation to the farm landscape.

The study area contains a number of *réttir* but it has also been the subject of sustained archaeological research. The research in this area has so far focused on the excavation of Viking period and medieval farm sites, in particular middens and domestic places, as well as boundary systems. The estimates of sheep numbers derived from the faunal assemblages, from the excavations in the study area, will provide a developmental sequence to compare the documented sheep numbers contemporary with the last use of the *réttir*.

In addition, Ian Simpson with Amanda Thomsen and Jennifer Brown, have been researching the land degradation and rangeland grazing strategies in the area for some years. This research then opens the question up concerning the differences in localised farm grazing practices contra to communal based practices, and when the implementation of *réttir* centred community practices occurred or how the two operated side by side. Although, a complicated issue, reflected in a dynamic balance between environmental parameters of change against estimates in sheep numbers and the impact of herds on land, this will nonetheless provide an interesting angle of inquiry.

Also, of particular interest, is the movement strategies associated with collecting sheep from the rangeland pasture areas, the movement from one *réttir* to another in communal systems of herding, and transferring of animals from the *réttir* to the farm. In addition, *réttir* acted as large social gatherings for communities, and were an opportunity for small trade, exchanges, settling community matters and much more. In many ways the activities associated (gathering, sorting, community places, maintenance) with *réttir* bonded communities together – provided a year round community focus - and therefore are an important avenue of research in understanding the social worlds of past societies and their interactions with environments.

As a result, two strands of research will take place in connection with the assessment of grazing strategies and *réttir* monuments at different periods. This report represents only a primarily insight into these issues. The first is a landscape approach in examining the location and spatial organisation of réttir with other features such as topographic features as well as the farm locations from different periods. And secondly, a focus on the monuments themselves in terms of their developmental histories, the internal spatial organisation and their relationship with the sheep-capacities inherent in *réttir* monument.

There are however several difficulties to be overcome. One will be to match contemporaneous faunal and historical records for sheep numbers with the monuments themselves. Also, it will be difficult to match farm *dilkur* to the wider farm landscape without particular documented examples; however, where this is possible, it is likely to have been an allocation continuity, although this assumption will be tested through oral histories and a close inspection of available documentary sources. These difficulties will be worked on, but are not presented in this report.

Results

Each *réttir* is described in terms of its landscape location, and with regards then spatial organisation of the *dilkur*, the central area, as well as the outer enclosure, if it has one. A specific comment is made regarding the areas of each component and the spatial ratio that is produced by dividing the total *dilkur* area from the central area enclosure area. This figure is then used to compare the spatial efficiency of monument.

Figure 5. An Oblique of Strengjarétt, looking west.

The *réttir* that were surveyed were:

1. Sellandarétt
2. Gautlandarétt
3. Hallbjarnanarétt
4. Hlíðarétt
5. Strengjarétt

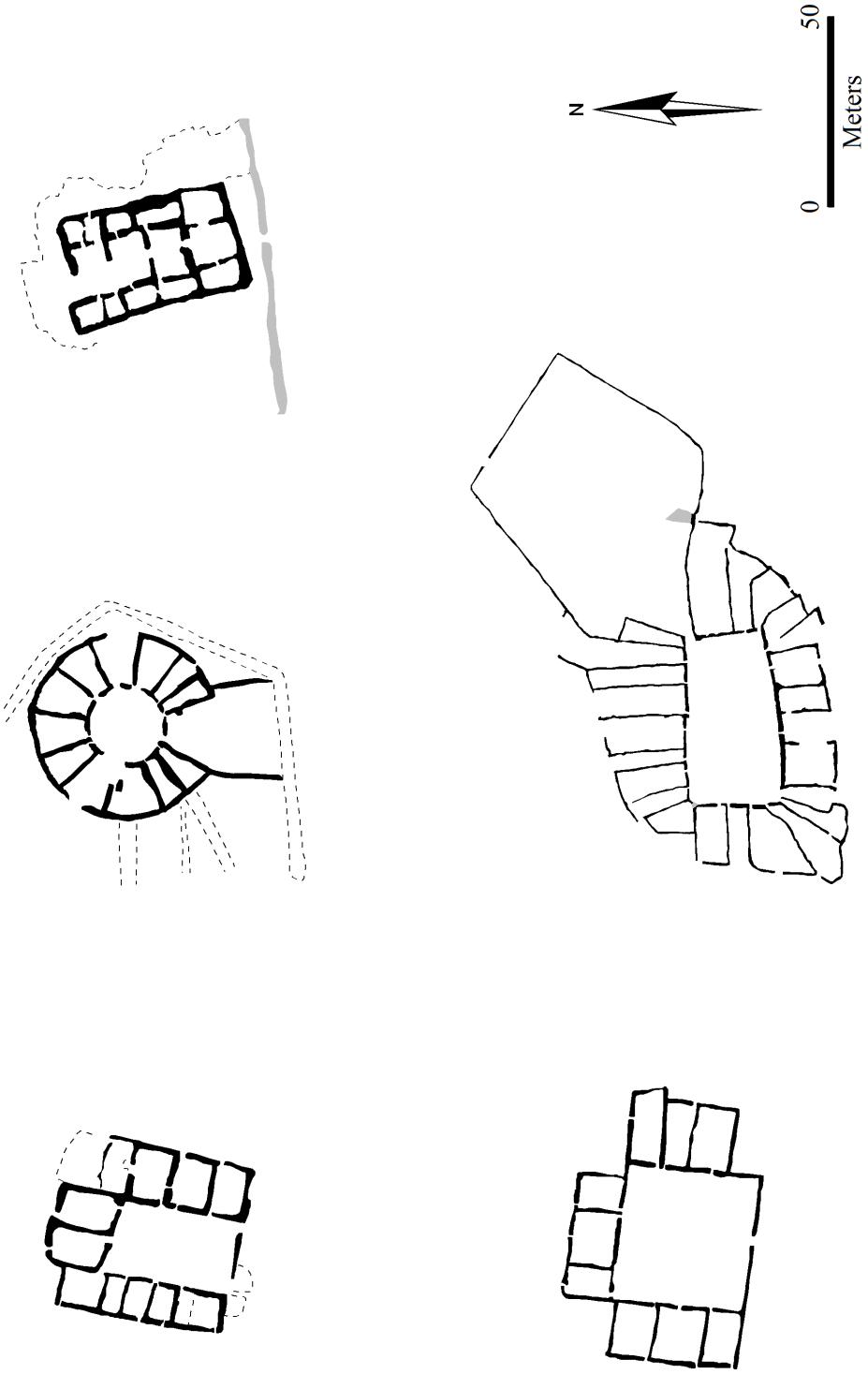

Figure 6. Réttir surveyed in 2008 presented at the same scale. From left to right clockwise: Sellandarétt; Gautlandarétt; Hallbjarnanarétt; Reykjahlíðarétt; Strengjarétt.

Sellandarétt

(S of Oddastaðir) [SÞ-203:063]

Sellandarétt is located south of the farm site called Oddastaðir, located in a river valley. The river lies to the east and edge of the plain to the west. The river and the edge act as a kind of barrier and natural enclosure. No signs of an attached outer enclosure were seen, but there was extensive birch growth which may have hid low lying surface remains. A flat area to the north looks interesting however, though this is lying on the opposite side of the entrance, which is on the southern side of the *rétt*. Close inspection of aerial photographs may reveal low lying features.

The monument is entirely turf built. It consists of several phases, though not particularly clear by just looking at the turf wall construction and joins.

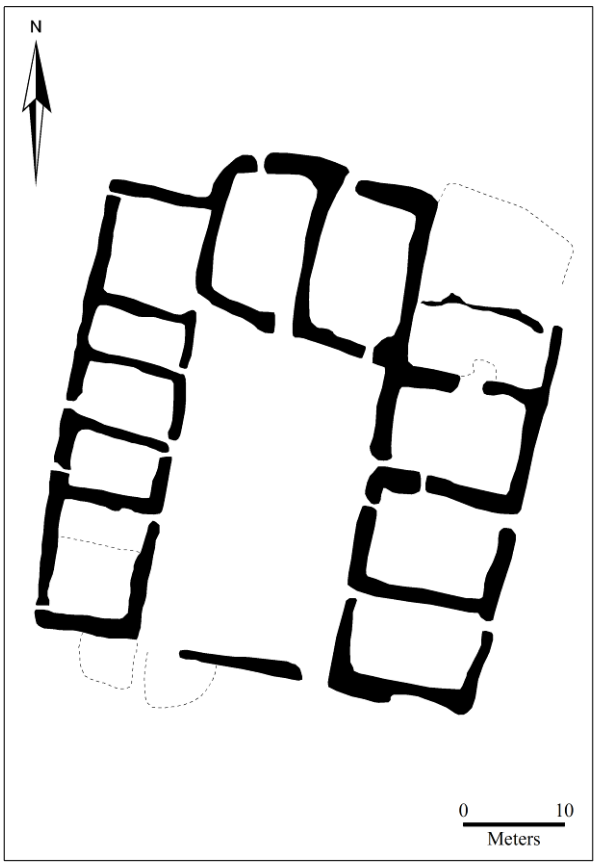

Figure 7. Survey plan of Sellandarétt.

There seems to be several schemes being applied during its use which reveals symmetry in its layout, as well as in the size of the *dilkur* and by the positioning of the entrances from the large inner enclosure into the *dilkur* and out of them.

The area sizes of the *dilkur* on the west are smaller than those on the east and north. The west from north to south are: 88m, 38, 53, 43, 85m2; on the east: 135, 80, 105, 105, 91m2; the north from east to west: 115, 110m2. The arrangement of the *dilkur* in the *rétt* do not suggest any overall plan or symmetry besides the two northern *dilkur*, and the two middle eastern side *dilkur*. On this basis alone, one could suggest that the original form may have been the two northern *dilkur*, and those on the eastern side, with the western side being added later. A future avenue of research therefore will be to trench different parts of the *dilkur*, in order to determine if there are any structural and temporal differences in the construction.

The central enclosure space has an area of 1,048m2, where as the collective area of the *dilkur* is 620m2. The area ratio, with which to compare to other *réttir*, is 0.592 (area of all *dilkur* / area of inner enclosure).

Gautlandarétt

[SÞ-197:010]

Gautlandarétt is close to a river, in a flat area below a shallow slope. The outer enclosure faces south, and was open but closed by drainage ditches. The *rétt* is located in a wet and boggy area. Tracks can be followed towards Baldursheimar.

The *rétt* is constructed in turf, again making it difficult to phase, though there appears to be no real differentiation in layout or in the 12 *dilkur* except in slight variations in size. The changes in phasing perhaps relate more to the abandonment of the structure rather than its use. For example, the ditches that were constructed on the outside the *rétt* but also respecting it suggest that a decision to increase the draining of the land was made after the *rétt* was built. Ethnographic sources suggest that the *rétt* was abandoned around 1933 because it had become too wet (Þórunn Einarsdóttir, born in 1937 and Jón Þórsson, born in 1933); this was certainly evident during the field work.

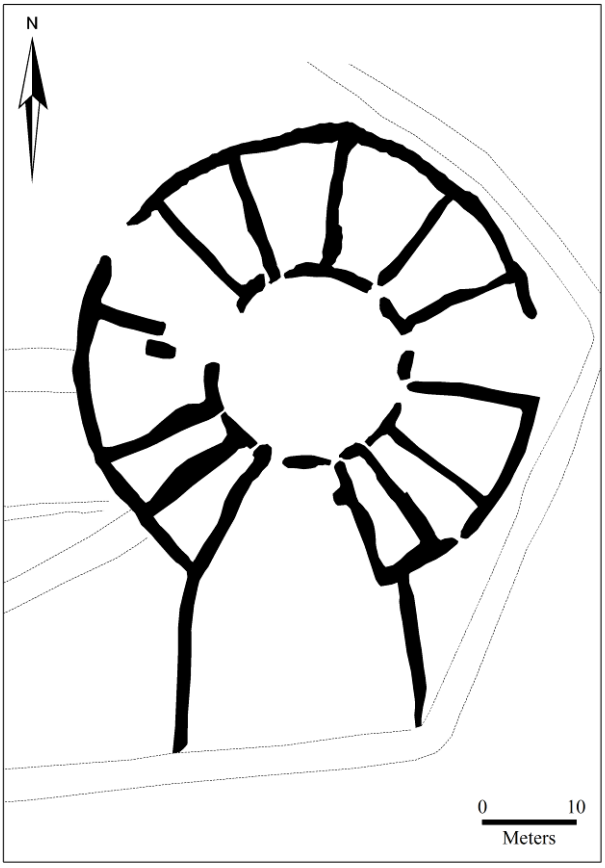

Figure 8. Survey plan of Gautlandarétt.

The 12 *dilkur* show some uniformity in their layout. Clockwise from the south-western *dilkur*, the areas are: 46, 40, 111, 105, 62, 90, 98, 74, 108, 85, 48, 34m2. It is possible that the 4 southern *dilkur* were originally 2, though the wall bonding will need to be excavated rather than just observed. The arrangement of the *dilkur* are positioned around the central area in a circular fashion, perhaps typical of the modern *réttir*.

The central area is 277m2, and the outer enclosure/funnel into the central area is 523m2. The collective area of the *dilkur* is 902m2. The area ratio is 1.128.

Hallbjarnanarétt

(next to Reykjadalsá)

Hallbjarnanarétt is located on the east side of the river, *Reykjadalsá* in an area of flat land just above the river flood plain. Nestled into the side of the slope, it is bounded by 2 boundaries: one lying immediately south it (see figure), and the other further north, just beyond a ridge marked marked by cairns. It is unknown if the boundaries are part of the spatial organisation of the landscape with regards the rétt. However, the area bounded by the slope, the 2 boundaries and the river to the west make a good semi-enclosed area for sheep pasturing before being sorted into farms.

The *rétt* is made out of turf cut from immediately around the monument; as can be seen on the figure. Like the other turf *réttir* it is hard to gain a sense of phasing in the layout of the monument and the *dilkur*.

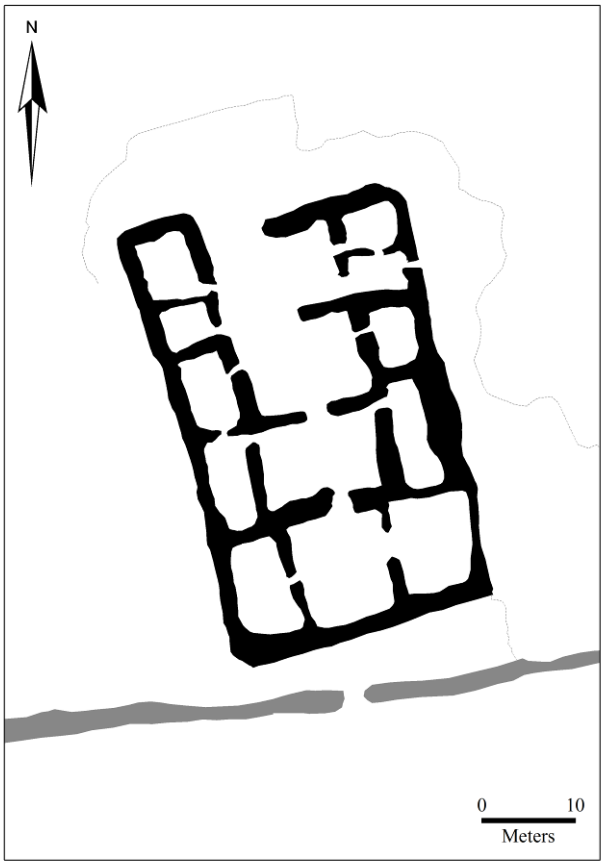

Figure 9. Survey plan of Hallbjarnanarétt.

The walls were very well preserved standing to a height of approximately 1m in places and 1-2m wide. The internal area of the monument also appeared to be stripped of turf. Therefore excavation of the walls should reveal clearly the surface on which the monument was built and from which turf was cut.

There are 10-12 *dilkur*. The confusion lies in the central area, which is divided into 3 parts. The entrance does appear to be located on the northern side with a clear differentiation between the *dilkur* and a sorting area. It may be that the central area is divided so as to divide different types of sheep (lambs, wethers). However, further ethnographic research will need to be done to look at the possible reasons behind the spatial arrangement of the *rétt*. If we suggest there are 11 *dilkur*, the areas from the north-east clockwise are: 22, 21, 24, 36, 74, 101, 53, 37, 35, 19, 36m2. There are several well defined entrances into the central area, and between *dilkur* (further supporting the separating of sheep types). This perhaps suggests that two *dilkur*, except the southern most ones, belong to one farm. On this basis, if we recalculate the areas from north-east clockwise, they show a monument symmetry: 43, 60, 72, 55m2.

The two remaining areas with in the monument – the central areas – come to an area of 317m2. The area ratio is 1.445.

Hlíðarétt

(S of Reykjahlíð) [SÞ-208:072]

Hlíðarétt is the most complex of the *réttir* surveyed in 2008, as well as being the one only which is still in use today, further adding to some of its complexity. It is located several kilometres south-east of *Reykjahlíð*. The monument is constructed from the lava stone that is in abundance around the monument, but it also utilises the natural contours of the volcanic landscape in its construction; the central area lies in a hollow, with the surrounding *dilkur* higher above it. The hollow or the lie of the land is not uniform and has affected to some extent the position and layout of the individual *dilkur*, particularly on the south and western sides of the monument.

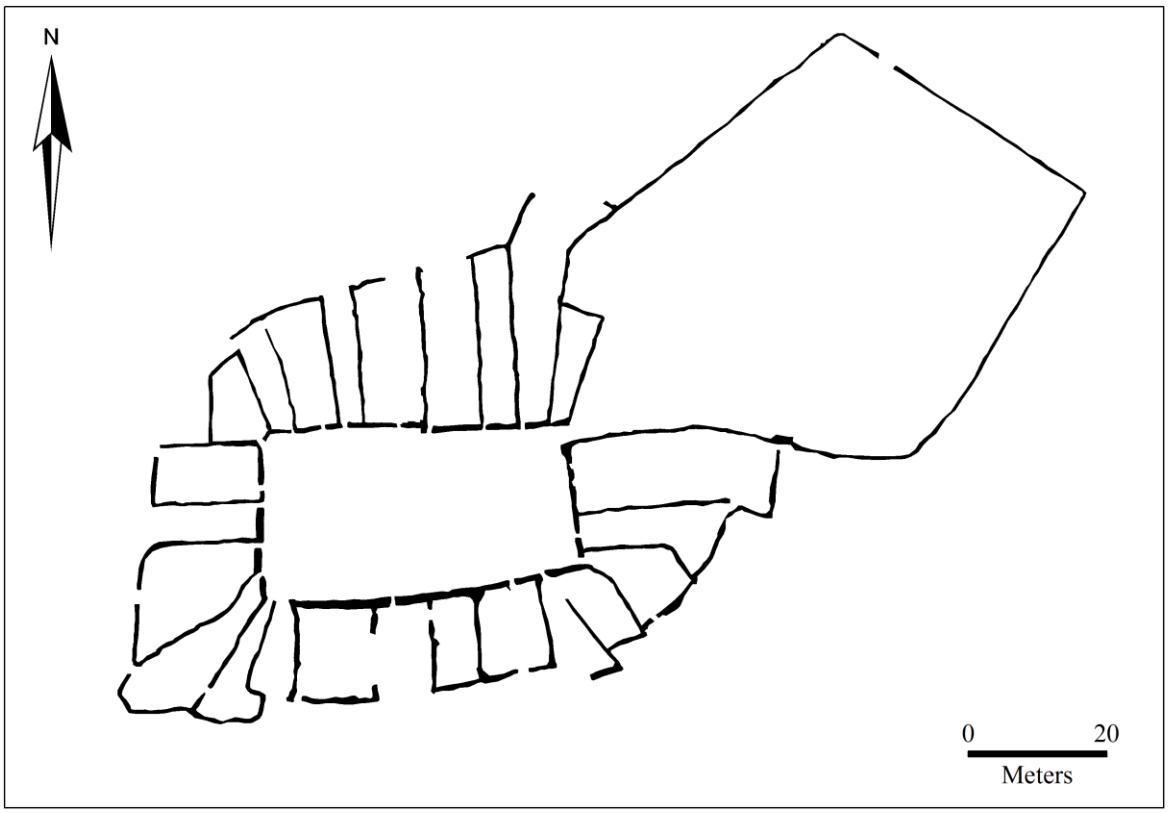

Figure 10. Survey plan of Hlíðarétt

Although there is much complexity in the layout and phasing of the monument, only a few are highlighted here. The monument is a patchwork of additions and alterations, though it is possible to isolate several major phases. The central area shows variability in its wall thickness suggesting that, at of what remains, the whole monument was at some point considerably smaller. On the northern wall of the central enclosure there is a clear boundary half way between groups of *dilkur*. In addition, on the southern wall there was clear evidence for gateway blockings, suggesting a reorganisation of space through an amalgamations of *dilkur*. Furthermore, several *dilkur* areas have also been divided, or added into spaces; for example the north-eastern *dilkur* that has encroached into the outer enclosure space; or the equal division of northern most *dilkur*. Underlying the complexity however, we can suggest a

phase sequence. The initial *rétt*, which is subsequently incorporated into later builds, was smaller, perhaps as simple as a single enclosure. The next phase suggests *dilkur* surrounding an enlarged central area, which is subsequently development further with additions, amalgamations, and sub-divisions occurring. At some point an outer enclosure is added, into sheep would be placed before being sorted. More recent changes included a subdivision of the central area by metal posts to support wooden fences, as well as pits dug at the outer ends of the *dilkur* that allow easy transportation of the sheep into trailers.

The *dilkur* are arranged around the central area in a semi-circle. There are 24 *dilkur*, whose areas from the south-eastern *dilkur* immediately below the outer enclosure are: 282, 112, 88, 69, 63, 108, 67, 98, 129, 57, 64, 139, 175, 69, 108, 67, 62, 110, 63, 172, 167, 110, 213, 58m2; total area is 2,650m2. There does not appear to be much symmetry in the area arrangement. The entrances from the central area and out are well defined.

The central area is 999m2, and the outer enclosure 2,865m2. The area ratio is 2.653 (the inner enclosure only); and compared to the outer enclosure the area ratio is 0.925.

Strengjarétt
(SE of Þórleifsstaðir) [SÞ-203:064]

Strengjarétt is located close to the river *Kráka*, just slightly above its flood plain, in an area totally devoid of vegetation. In fact, it is likely, according to ethnographic sources that the *rétt* was abandoned because of sand accumulating inside it. In places the natural rock has been exposed, and the monument makes use of the underlying rock in the wall construction of the north-eastern most *dilkur*. The slope to the east, and the river that curls around it, make this a good place for driving and storing sheep.

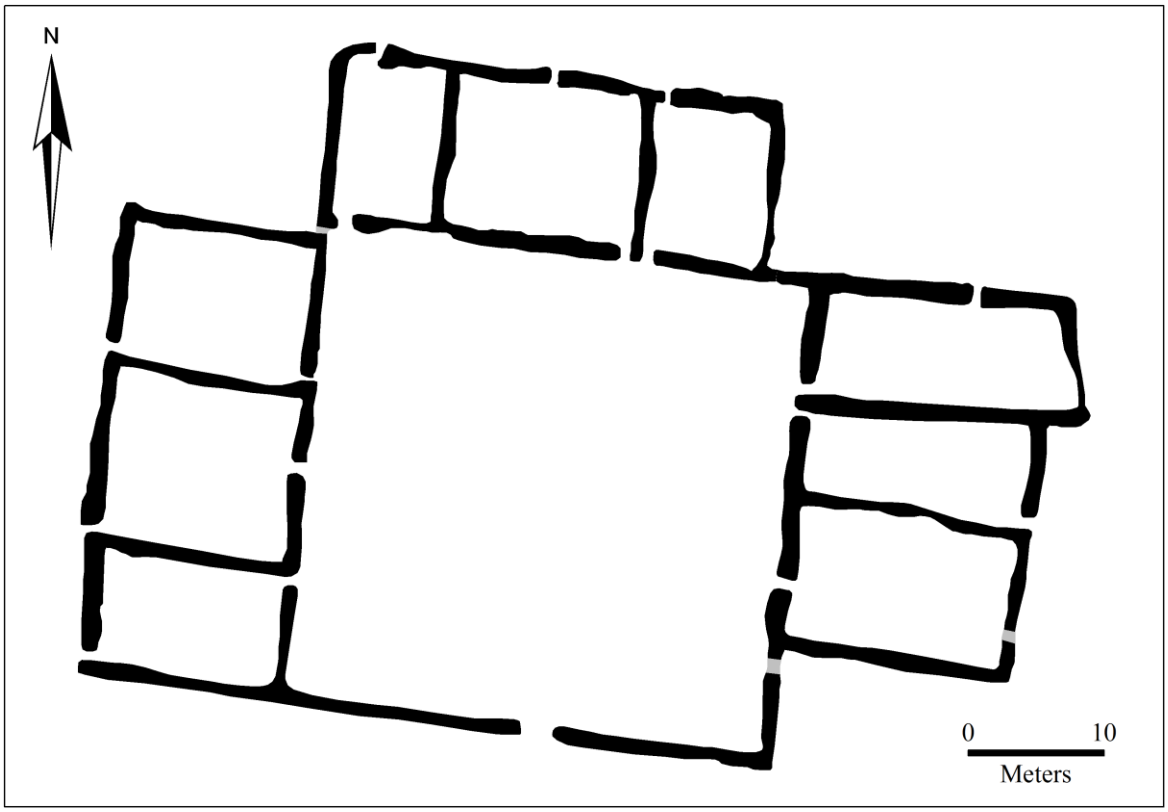

Figure 11. Survey plan of Strengjarétt

The layout of the *rétt* is the simplest form of those surveyed in 2008. 3 *dilkur* on 3 sides of the inner enclosure, whose entrance lies to the south. The walls were all built with stones gathered from around, and approximately 1m thick and 1.5m tall. Sand was found deposited in most the *dilkur* and around the edges of the central enclosure. There was some evidence of changes to the layout and organisation, though these were more or less confined to blockings of gates. It appears that the entire monument was built in one sequence, though the eastern side shows some variability compared to the 2 other *dilkur*-sides.

There are 9 *dilkur* in total, and there areas from south-western corner clockwise are: 105, 156, 130, 76, 143, 86, 127, 98, 147m2; the total area is 925m2. The central area is 1,193m2. The area ratio is 0.775.

Discussion

Far from presenting final conclusions on the survey of *réttir* that was conducted in the summer of 2008, this discussion is focused on some of the historical and interpretative possibilities that are beginning to be revealed in our research.

The area that was chosen has already been intensely researched, and is part of a work in progress to understand the colonisation process and the subsequent occupation and domestication of the land; for example, the *Landscape of settlements* (NSF and Rannís) and the *Landscapes circum Landnám* (Leverhulme) projects. Both of these focused on developing sophisticated models on the dynamic relationships of entanglements between human, animals and environment. In particular, Ian Simpson et al's research have an important connection with ours: on rangeland vegetation models and mapping the impact that overgrazing may have had on environments by examining the success or failure in land management strategies and land productivity. These studies provide an extremely important link to *réttir* research. This is precisely because *réttir* are not only static monuments into which sheep are brought and sorted into farms, but that they provide a vital bridge between animals and humans, the independent farm and community based practices. For example, one could argue that the monuments embody rangeland practices are represented through practices of community regulation in terms of organising the system of collection, and the maintenance of the monuments during the spring, and in providing the central distribution point between the individual and community networks in which they were placed.

The study is also important as it focuses on the material form of the monuments, through the detailed and rigorous measured surveys, and as such is primarily an archaeological project. Not only can shapes and layouts be compared and contrasted as a result but also through statistical analysis the spatial efficiency of the monuments can be assessed. This is particularly important in determining the degrees of success or failure in the monuments not just in terms of their locations (their proximity to grazing areas, or other landscape features such as rivers), but in relation to the community at large; these monuments stand in for the communities that built them to the extent that their success or failure as sheep folds is a reflection of the community which built them. Furthermore, it is also about others sources of information, historical and oral, of which there is a tremendous wealth. Archaeology then coalesces other types of information, playing a central role in bringing information to our narratives.

Many of our aims in the project have not yet been achieved, besides the survey. The relationship between rangeland locations and strategies, the number of sheep compared to contemporary monuments, as well as the dating of monuments, have all been partially explored but as yet nothing concrete has been produced. This work will continue over the coming months.

Out of interest it is perhaps worth pursuing one group of monuments, and the exploring their relationship with one another. According to ethnographic sources *Strengjarétt* was used till 1905, when *Gautlandrétt* was built, and used till 1933, afterwhich *Baldusheimarétt* was built and continues to be used today. It is possible that before *Strengjarétt*, *Sellandarétt* was use. Alternatively, in the intervening years between *Strengjarétt* being used and *Gautlandrétt* being built (ie. between 1905 -1909) *Sellandarétt* was used. However, this will need to be tested and examined though further archival research and excavation. But in any case, given

the short amount of time, the variations in the monuments, it will be possible to examine closely, the developmental process across several related monuments which are normally seen through one. *Hlíðarétt* for example, is a monument that has gone through several different phases of construction and alterations that make it hard to depict and analyse the sequences of changes.

Réttir	*Dilkur*	*Dilkur area*	*Central area*	*Spatial efficiency*
Strengjarétt	9	925	1,193	0.775
Sellandarétt	12	620	1,048	0.592
Gautlöndrétt	12	902	800	1.128
Hlíðarétt	24	2,650	999	2.653

Table 1. Comparison of the spatial syntax of 4 réttir.

One could argue, if one of the above hypotheses is correct that the developmental process aimed at reducing the size of the central area. This was not corollary with the size of the *dilkur* which, though they reduce at *Sellandarétt* nonetheless increase again at *Gautlandrétt*. The transformation is perhaps in one way or another related to sheep numbers, and the need to exert greater control over their sorting. In many ways, *Hlíðarétt* was perhaps clinging on to an early tradition of different sheep sizes though it inability to change its monument form radically, and had instead to respond by reducing the size of the monument not in terms of moving and altering the walls, but by closing the space that was used from that which was not, whilst only maintaining the active space: for example the metal poles that were used to reduce the size of the area and close off parts of the monument according to sheep numbers, and the letting go the marginal parts of the monument.

There are still many points to resolve and avenues to pursue, but this report has perhaps identified some future paths to take.