

ICELANDIC RESEARCH FUND

FINAL REPORT

The final report covers the calendar year (01.01. - 31.12.)

A signed copy of the final report shall be submitted to Rannís by email to

rannsoknasjodur@rannis.is – Subject: IRF - Final report.

Grant number: 1392-1393102

Project title: *Power, Wealth and Plague in Two Valleys: Svarfárdalur, Hörgárdalur and their hinterlands ca. AD 870-1500*

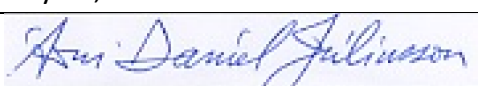
Project leader: *Árni Daniel Júlíusson*

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Expert panel: *Kristian Kristiansen, University of Göteborg, Lotte Hedeager, University of Oslo, Karen van Niekerk, University of Bergen and Guðmundur Ólafsson, National Museum of Iceland.*

Signatures to certify that all information in the **final scientific** and **budget reports** is correct and that the reports include all relevant information:

Date and place Reykjavík, February 12, 2025.
Project leader 
Person responsible for research facilities 

To be filled out by Rannís:

Date final report received	
Grant previously paid	
Grant paid upon approval of final report	

SCIENTIFIC REPORT

Note: A financial report for the project is submitted separately.

1. Project leaders final report (2-4 pages)

Participants and their role in the project.....	2
Summary of the project	11
Publications	14
A short summary	18

Participants and their role in the project

Project leaders: Árni Daníel Júlíusson was the principal investigator. He is a research fellow at the University of Iceland. Ramona Harrison was the co-principal investigator. She is an associate professor in archaeological methods with focus on zooarchaeology at the University of Bergen, Norway.

All work packages participated in three project meetings. The first was in October 2021, the second in November 2022 and the third in March 2023. All meetings were in Reykjavík, the first and third in Safnaðarheimili Neskirkju, and the second in the Safnahús at Hverfisgata. All participants gave lectures at each meeting and took part in the discussion.

Work Package 1: Settlement Archaeology

Elín Ósk Hreiðarsdóttir is WP leader. She is an archeologist at The Archaeological Institution of Iceland (FSÍ). Howell Roberts was also WP leader in the first year, but then had to leave the project. He was head of Excavation at FSÍ. Árni Daníel Júlíusson, the PI is also a participant in this WP. Other participants: Ruth Maher in pagan graves and spatial analysis studies (1st year) and Stefán Ólafsson, archaeologist at FSÍ. Árni Hjartarson, head of WP5, also assists in this package. Several field research assistants also participated.

The archaeological investigations of the Two Valley Project were conducted in the Eyjafjörður region, focusing on Svarfaðardalur on the one hand and Hörgárdalur and Öxnadalur on the other. The work included field surveys, targeted excavations (trial trenches at 24 sites), and experimental approaches to evaluate farm mound sizes as indicators of farm status. Additionally, efforts were made to identify pre-Christian burials, and the team participated in interdisciplinary collaborations. The status of various components, data, deliverables, and milestones is summarized in Table 1.

Table 1. Work status of WP 1

Component	Svarfaðardalur	Hörgárdalur
Field surveys	Complete	Complete
Excavations	Complete	Complete
Dating analyses	Complete	Complete
Detailed field report	Complete	Close to completion
Conference contributions	Complete	Complete
Articles	1 Complete (ÁDJ)	
	1 In preparation	
Book chapters	1 Planned	

Key Findings

- Trial trenching, primarily conducted into home fields and property boundaries, along with farm mound evaluations, has contributed to a clearer picture of settlement patterns and abandonment in the area. The research has provided valuable insights into settlement history and social stratification in the medieval period.
- Integration with midden analysis (WP 2) and findings from historical research (WP 3) and paleoecology (WP 4) differences in social stratification between the inner and outer valleys. Farms in the outer valley were generally larger, controlled higher-quality land, and had access to more diverse resources. This land was likely settled first, and these farms remained wealthier than those in the inner valleys. Notably, trenching results did not indicate significant differences in the dating of farms, suggesting that the inner valleys may have been settled contemporaneously with the outer regions or that any delay in settlement was too minor to be traceable in the archaeological record.
- One indication of differing settlement patterns in the outer and inner valleys is the contrast in burial practices between these areas. The outer regions of Svarfaðardalur contain numerous pre-Christian burials, whereas such burials have not been found to any extent in the inner valleys. A systematic survey targeted to search for such burials in the inner more valleys did not locate additional burial sites, but further research is needed to reach firm conclusions. If real, this discrepancy raises questions regarding settlement chronology, social hierarchy, and religious practices.
- The investigation of farm mounds has also yielded significant data regarding land tenure and economic shifts. Drone surveys and 3D modelling have been used to estimate mound sizes and correlate them with historical tax records. The preliminary findings indicate a correlation between mound size and social status, with high-status farms exhibiting larger mounds and longer occupation sequences.

Interdisciplinary Contribution

WP 1 played a critical role in the interdisciplinary approach of the Two Valleys Project by providing an archaeological perspective on settlement evolution, class dynamics, and environmental adaptation. The integration of tephrochronology, palynology, and zooarchaeology with historical sources has strengthened the broader understanding of medieval society in the area.

- Additionally, WP 1 has made a strong contribution to the project's public engagement, maintaining an active presence on social media and playing a key role in public outreach efforts, including open days and community engagement initiatives.

Work Package 2. Midden Archaeology

Ramona Harrison (UiB/AHKR) was primarily responsible for WP2, Zooarchaeology in SVARF and HÖRG. She supervises PhD student Kristin Møller-Nilsen in this work. Jack Threlfall Hartley (2021, 2022) was a field assistant in 2021 and 2022, and two UiB MA students were involved as field trainees in 2022. Philippa Ascough (U Glasgow), Ingrid Mainland (UHI) and Vicki Szabo (WVC) also collaborate here. Via WP2, Two Valleys project collaborates with the project partners in SEACHANGE (<https://seachange-erc.eu/>). All named experts are involved in providing bio-, and geochemical data sets to organic and inorganic archaeological remains from both WP2 and WP1 projects.

WP 2 consists of a series of farm midden investigations in Svarfaðardalur and Hörgárdalur, including both coring and test excavations of selected household refuse collections to address the basis of farm economy, livestock organization and farmers' (predominantly pastoralists) interaction with the environment. Over three field seasons, extensive soil coring assessments were carried out at 9 farm ruins associated with both lower and middle-to-high social status. The WP2 Midden archaeology project was able to locate, assess, and test 3 farm household middens, with special focus placed on sampling undisturbed (stratified) sites containing Settlement-to-past-15th century cultural layers.

· Table 2. Work status of WP2

Component	Svarfaðardalur	Hörgárdalur
Fieldwork – coring	Complete	complete
Fieldwork – excavation	Complete	complete
Dating analyses	Ongoing	Ongoing
Faunal analysis	Ongoing	Ongoing
Field report	Close to complete	Close to complete
Specialized analysis (isotope, tooth microwear, sedimentary DNA)	In progress	In progress

Key Findings

In Skíðadalur (Svarfaðardalur), despite poor preservation even there, the Kóngstaðir farm was the only site producing undisturbed midden layers with a settlement chronology from 9th to 15th centuries. In Svarfaðardalur, resulting from extensive coring work to avoid the heavily disturbed areas, Tjörn was the only farm midden where archaeological remains could be collected. These remains are undergoing analysis to refine site activity chronology and to thus enable correct contextualization of the archaeological record. In Hörgárdalur, only the farm midden at Staðartunga could be properly trenched and excavated. Two resulting midden trenches revealed organic remains and artifacts from the entirety of the Icelandic Settlement history, from Landnám up until about the 1930s, when the old farmhouse was destroyed. Via ongoing faunal analysis on the macro- and the micro-level, with for example: isotope and trace element analysis, tooth microwear analysis, and aDNA analysis, the data from all three sites can be utilized to better address questions about socioeconomics and human-animal-nature interactions across the two valleys. Screening, processing, and analysis of potential plant-macrofossils is planned for 2025/2026, and together with the artifact record and results from animal bone analysis the data is to be integrated into a W2 synthesis publication (see publication plan).

Based on the results available to date, it is clear that results from these site-focused coring and excavation investigations provide relevant data sets that help inform the overall project focus and research questions. Work towards an edited project monograph will start in April of 2025, and the WP2 PhD candidate has successfully secured funding for a 4th year of analysis and write-up.

Work Package 3 History of the Two Valleys

Axel Kristinsson is primarily responsible for WP3 and his main role is to provide a theoretical framework and lead the investigation into social stratification in early Iceland using written sources.

Árni Daníel Júlíusson is the overall leader and coordinator of the project and in WP3 his main role is the documentary history of the Two Valleys and the coordination of the historical, archaeological and other evidence. He also works on analysis related to the peasant society character of the Two Valleys society, connecting the project to various strands of scholarship regarding Medieval Europe such as the contribution of Chris Wickham.

Key findings of historical WP

The history of the early Icelandic Commonwealth (before ca. 1100 AD) has largely been based on questionable sources, the Grágás law-code first written down around 1120 but only preserved in much younger versions, and especially the Sagas of Icelanders, written in the 13th and 14th centuries. Based on a rather uncritical reading of these sources, earlier generations of historians have painted a picture of a limited aristocratic rule in this period, quite similar to the one we know from the 12th century. According to this view, the political and social organisation in Iceland changed very little from 930-1200.

However, we find that this perception of stability is artificial and results from the efforts of the social elite in the 12th and 13th centuries to establish its legitimacy by creating a past through

written sources that confirmed their noble descent. The result was a mythical past that linked the aristocracy with illustrious ancestors in Norway and semi-historical heroes in early Iceland.

That this past is not real can be demonstrated, e.g., through the careful study of heritability of godords (goðorð / chieftaincies). According to the traditional view, godords were inherited in the male line from the very beginning and this is repeatedly illustrated in the Sagas of Icelanders. However, we have shown that there is strong evidence that the godords only became hereditary in the early 12th century meaning that the picture painted in the sagas is entirely false. Moreover, the organisation of the godords, as presented in Grágás, shows a much more democratic power-structure than the one we find in the sagas and contemporary sources from the late Commonwealth, indicating an earlier stage in their evolution.

We have also found that the numerous aristocratic genealogies, preserved in sources from the 12th to 14th centuries, are often very questionable and demonstrably fabricated in some cases. Such genealogies are a frequent aristocratic strategy, not only in Iceland, and there is no more reason to place trust in the here than in other countries. These genealogies seem best interpreted as another attempt by a recently emerged aristocracy to establish its legitimacy.

The general implications from these studies are that the Icelandic aristocracy of the late Commonwealth was a newly formed upper class, at pains to establish legitimacy.

There are several other indications of an early Commonwealth period that showed much stronger egalitarian and democratic tendencies than the late Commonwealth did. These include evidence that suggest that manor-formation only commenced in the mid 11th century and continued well into the 12th century. A census of tax-paying farmers from around 1100 also indicates a still strong freeholder class as do the specifics of tithe, introduced at the same time. The popular army also persisted in Iceland up to the mid 13th century with a military participation ratio of around 20% of the population. This usually indicates democratic and/or egalitarian traditions.

The historical evidence thus strongly suggests egalitarian and democratic tendencies in the early Commonwealth. This should be compared to other societies of colonising farmers, not least that of N-America. Such societies usually display strong egalitarian and democratic tendencies. The reasons are not difficult to understand. In agrarian societies the social elite depends on the control of land for its economic domination. When land is plentiful, as it is by definition in settler societies, this foundation of economic dominance simply doesn't exist.

Nevertheless, as the land filled up, Iceland, as many other such settler societies, developed a social elite. This did not happen through conquest or the use of force. In the Icelandic case it is fairly obvious that the new aristocracy rose from within. This must have happened through some kind of self-organisation and this seems to be what generally happens in such cases. A likely driver is the so-called 'Matthew Effect' where agents, already in possession of more assets than others, use them to acquire still more.

Analysis of the peasant society character of this society is part of the package. From this viewpoint the interpretation of early egalitarian Icelandic farming society shows many common characteristics with European peasant society before 800 AD. The scholarly contributions of Laura da Graca, Chris Wickham and Einar Olgeirsson are of interest regarding this.

Work Package 4. Palaeoecology

Egill Erlendsson (EE) is responsible for WP4, palaeoecology and land use decisionmaking in the two valleys. He supervises PhD student Elísabet Ásta Eypórsdóttir.

Palaeoecological research has been undertaken in three valleys in the Eyjafjörður region: Svarfaðardalur, Hörgárdalur and Fnjóskadalur. Complete datasets are available for two (Svarfaðardalur and Fnjóskadalur), analysis is underway for Hörgárdalur. The status with regards to components, data, deliverables and milestones is provided in Table 3.

Table 3. Work status of WP 4

	Svarfaðardalur	Hörgárdalur	Fnjóskadalur
Materials (fieldw.)	Complete	Complete	Complete
Palynology	Complete	Underway	Complete
Sedimentology	Complete	Complete	Underway
Chronology	Complete	Underway	Complete
Conference contrib.	4	1 planned	1
Publication	Draft manus. x 2	1 planned	1 planned

Key findings

The primary emphasis of science is to challenge the established order of knowledge. Here, our data allow us to scrutinise the common narratives and paradigms into which environmental processes following settlement are commonly framed. We demonstrate careful management of the woodland resource over the first two to three centuries of settlement in Svarfaðardalur, this is evident both at Sakka (high status) and Kot (low status) in Skíðadalur (a subsidiary valley). Fnjóskadalur provides a similar pattern. Palynology depicts sustainable use of the woodland resource by the industrial-scale charcoal/iron production at Skógar (low status), with woodland decline evident once the site converted to conventional farming. At Fjósatunga (high status), as for Sakka, woodland retreat becomes evident between AD 1150 and 1400. Opposite to Svarfaðardalur, both Fnjóskadalur sites provide clear evidence of abandonment or sufficiently reduced land use to allow a resurgence in woodland. This of great interest for Fjósatunga in particular, given the farm's high status. Overall, the data demonstrate that ecological processes following the settlement cannot be seen as a synchronous "state-shift" from a woodland to grassland/heathland ecosystem taking place over a few decades. They do, however, add to mounting evidence that a large part of the eventual near-extirmination of the Icelandic birch woodlands took place before any late- or post-medieval cooling. This particular feature of Iceland's environmental history must therefore be seen as being driven by human actions, the result of which is reduced resilience to external perturbations, such as climatic deterioration and deposition of tephra.

The data gathered within WP 4 complement to other WPs by demonstrating environmental perturbations during a period believed to have been one of significant expansion of the population, establishment of new farms and increasing number(s) of households on already established farms. As such, the environmental record can be seen to support such hypothesis. Further, the pollen data from Svarfaðardalur and Fnjóskadalur perhaps demonstrate regional differences in responses to the

plague. Alternative explanation for the disparate environmental signals for the plague could also lie in the different floral landscapes of the two valleys at the beginning of the 15th century.

WP 5 Geomorphology and natural hazards

Árni Hjartarson (ÁH) is responsible for WP5, geomorphology and natural hazards in SVARF and HÖRG. He has collaborated with the geologists Halldór G. Pétursson and Sveinn Brynjólfsson. The work package deals with environmental changes resulting from avalanches, rock fall, debris flows, landslides, floods and earthquakes and the effects of these events for the society. The two valleys have experienced all these various hazards.

Key Findings

Geomorphological research has been undertaken in three valleys in Svarfaðardalur/Skiðadalur and Hörgárdalur valleys during all field seasons. The geologic team used a backhoe to dig exploratory holes in the area. In 2021 they focused on the farm of Grund in Svarfaðardalur, one of the first farms established in the valley according to Landnámabók and Svarfdæla Saga. The question was, why did the immigrant leader family locate their farm just below the most dangerous scree canyon in Svarfaðardalur? Was this because of a lack of experience and knowledge about the new environment where he and his partners were settling. Or did the scree activity in the Grundarlækur gorge start late, long after the age of the settlement? The main suggestions that can be made after the investigation is that frequent flows and landslides occurred in the area all through the historical time. The main activity has been on the northern part of the Grundarlækur gorge alluvial cone. The southern part of the cone, where the farm houses are located, has suffered much less flows with long periods with no considerable flooding in between. It is noteworthy that little remains of a forest appeared in the excavations. The large alluvial cone of Grundarlækur appears to have been open landscape surrounded by birch and bushes and seems accordingly to have been an excellent pasture for livestock. This can explain why it was so attractive in the eyes of the first settlers that they chose this very place above all others in the valley for their new home.

In 2022 the geologic team targeted three sites in Hörgárdalur hit and ruined by hazardous landslides mentioned in Annals in 1390. The sites are Langahlíð manor farm, Búðarnes farm and Gásir village and trading harbour. The team succeeded very probably to locate the 14th century manor farm of Langahlíð below the landslide debris but its location has long been controversial. The scree that destroyed the farm in 1390 was outlined and remains of human activity below the scree were found. It is 1 – 2 m thick in most places and seems to have flooded the entire farm, ruining most of the houses and the farmland. The results from Búðarnes farm, also hit by a scree on the same day as Langahlíð, were the same. The outlines of the scree were mapped and the probable location of the farm houses. Gásir was the main trading harbour in Northern Iceland during the Middle Ages.

Archaeological excavations in the area show that the trading activity declined for unknown reasons at the end of 14th century and after 1400 it is rarely mentioned. Geological evidences indicate that the harbour was possibly ruined and partly filled up by catastrophic flood in Hörgá river following the

hazardous weather and landslide of 1390. The manifestation of this is seen in flood deposits in the Hörgá river delta where soil, turf and wooden trunks make up the majority of the material. In 2023 and 2024 additional investigations were performed in Klængshóll in Skíðadalur and in Langahlíð. In Klængshóll relics of a landslide were surveyed. According to tephra layers the landslide occurred shortly before the settlement of the valley. The farm seems to have been built on the landslide itself. The slide was a single event in this place.

Table 4. Work status of WP 5

Component	Svarfaðardalur	Hörgárdalur
Field surveys	Complete	Complete
Excavations	Complete	Complete
Conference contributions	Complete	Complete
Field report	Complete	Complete
Articles	1 in prep.	1 complete (HGP) 1 in prep.

Work Package 6 Black Death Synthesis Study

Árni Daníel Júlíusson leads the work package, along with all the other WP leaders. Sólborg Una Pálsdóttir is doing research in this area in the context of the masters program in history at the University of Iceland.

Key Findings

There has been much debate about the extent of the impact that the Black Death or plague had on Icelandic society. The main indicator has been the number of inhabited farms before and after the plague. In the 1970s, Icelanders participated in a Nordic research project where the primary aim was to investigate the desertion of farms during the period 1300 to 1600. The results varied significantly by country. Norwegians estimated that about 50-70% of farms had been abandoned during the period from 1350 to 1450 with a long-lasting effect on society. Danes and Swedes, on the other hand, believed that 25% to 30% of farms had been abandoned, and the result from Iceland was similar, around 23-25%. When examining the research conducted in Iceland, it is evident it is primarily based on written sources that mostly mention „lögbýli“ (farms, not subtenant farms). But does this provide an accurate picture of settlement in the Middle Ages?

Recent archaeological research in Northern Iceland has revealed a number of farms that are not mentioned in written sources. The existence of many of these farm ruins has been known for some time, but they have often been classified as tenancies or crofts from a long period where settlement was brief and/or unstable. Now, some of these small farms have been dated. Árni Daníel Júlíusson examines the results of these dating in an article he published in the Árbók hins íslenska

fornleifafélags in 2021 ("Á eyðibýlum Norðanlands. Um byggðapróun í þremur héruðum norðanlands á miðöldum," 43-77).

The dating carried out on these ancient farm ruins shows that a large part of these ruins is from the Middle Ages. For example, in Skagafjörður, dating has been conducted on just over 30 farms. On most of these farms, settlement began around 1000 or shortly after 1100 and continued until 1300 or 1400. Archaeological research in Svarfaðardalur and Skíðadalur give us similar results. After the plague, there was significant movement in people's settlement patterns. As more valuable farms became available, people left the poorer farms. Landowners were eager to secure tenants for their farms that maintained the buildings and pastures. Thus, it was rare for the best and most valuable farms to be abandoned for a long period, even though it is not entirely unknown. The key to the analysis of the plague's effects on settlement must therefore be the habitation of smaller farms and subtenant farms.

In Sólborg Una Pálsdóttir's master's thesis, these issues are examined more closely, delving deeper into the archaeological investigations and the studies of the external conditions of these abandoned farms. The results are similar, namely that a number of small farms were inhabited during the Middle Ages that are not identifiable in written sources. Many of these farms were most likely deserted during the plague and were never rebuilt. These might indicate slow recovery for society due to lack of manpower and/or change in land use.

The thesis also lays the groundwork for the next phase of research on the Black Death, which is to assess the churchyards that could be considered as research sites. Attention is directed to churchyards in Svarfaðadal, Hörgárdal, and Skagafjörður due to the status of archaeological investigations on farms, as few places in Iceland have gathered as much information about the age and type of these farms. This would make it possible to connect information about the plague's victims with information about the farms. Research on the victims is the missing piece in the overall picture of the effects and progression of the plague in Iceland. With such studies, it would be possible to answer important questions about mortality, transmission routes, and the aftermath of the plague.

Summary of the project

Describe the progress of the project; main results, milestones reached and other achievements or outputs. Please refer to the milestones in the application. If there are deviations from the original research plan, please explain the need or rationale for those changes.

The research of the project followed the plan outlined in the research proposal. The first year focused on the Svarfaðardalur valley, with field trips during the summer involving the two archaeology teams, the settlement archaeology team and the zooarch team, the palaeocological team and the geology team. A project meeting was organised in early October in Reykjavík, with a well-attended dissemination meeting in Dalvík in Svarfaðardalur in the same week. The second year focused on research in the Hörgárdalur valley, with the same teams congregating and working in that valley during the summer. Before that, in May, the history team lectured at the Söguþing in Reykjavík. A project meeting was held in late November. During the third year the zooarch team went to Hörgárdalur and Svarfaðardalur for field research, while the other teams had fulfilled their field research duties. A project meeting was held in early March, with the participation of some of the advisory board, such as prof. Kristian Kristiansen from the University of Gothenburg, and prof. Lotte Hedeager from the University of Oslo.

The PhD students were active throughout, with the palaeoarcheological one hired before the 2021 field season, and the zooarcheology one active from autumn 2021 and participating the October project meeting. An MA student for WP6 was active within the project from autumn 2022.

In preparation for the project, considerable research was carried out. This goes for both history and archaeology. Regarding history, all documentation from the period pertaining to the two valleys was analysed during a research fellowship at the National Museum of Iceland 2015-2017. Regarding archaeology, extensive research on medieval earth walls and deserted farmsteads had already taken place in Svarfaðardalur in 2010 and 2018-2020. In Hörgárdalur, research on farm middens had also already taken place, at Möðruvellir, Oddsstaðir and Skuggi, providing vital information on the makeup of livestock herds in the Middle Ages.

The research question of the project was determined on the basis of the preliminary research. The development of social stratification in the area was the overarching question, while the various academic disciplines involved in the project formed their own research questions in relation to the nature of the discipline in question and the overarching research question. The problems set for research were in continuation of the preceding research, with newly gained information and considerations filling in voids and continuously identifying gaps in the overall research. The geographical focus of the research was two key areas within the respective valleys. The first area includes the inner or upper parts of Svarfaðardalur, specifically Fram-Svarfaðardalur and Skíðadalur. The second area is located in Hörgárdalur, including sites such as Oddsstaðir and Skuggi where previous zooarchaeology research had been conducted.

Both these areas underwent the same investigative approach. The aim was to find suitable sites for settlement archaeology research, zooarchaeological research and palaeoecological research. Additionally, drones were used to measure a considerable number of farm mounds. A further focus was the search for possible pre-Christian burials in the inner valley areas, of Fram-Svarfaðardalur and

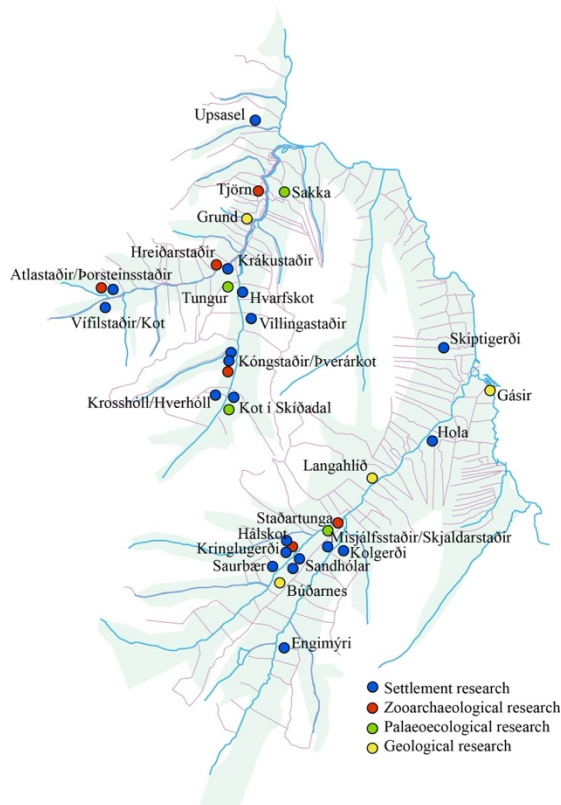


Fig. 1 The research sites of each wp

Skíðadalur.

In the summer of 2021, an expedition set out from Reykjavík to Svarfaðardalur for the field research. The settlement archaeology team proceeded to excavate trenches at several location. The trenches were taken into earth walls from medieval boundaries and buildings. The zooarchaeological team aimed to find middens from farms of different social standing, two in each valley. It found an intact midden in the medium sized farm of Kóngstaðir in Skíðadalur which was opened and sampled. Unfortunately bones had disappeared due to the acidity of the soil, but a midden profile containing a complete sequence of cultural layers was drawn up and a sample taken for DNA analysis. Many other targeted sites were assessed for suitable midden sampling, but none were preserved intact. However, the site of Tjörn in Svarfaðardalur, a high-status farm, proved suitable and was sampled in the summer of 2023. The palaeoecology team aimed to core three areas, one of high status, the second of a medium status and a third of low status. The sites of Sakka, Tungur and Kot í Skíðadal were eventually chosen for sampling.

In 2022 the research teams focused on Hörgárdalur. The zooarchaeological team included zooarchaeology research sites of low-status farms Oddsstaðir and Skuggi, as already mentioned. The Zooarchaeology team also proceeded with midden assessment work at the high-status farm of Staðartunga that was opened for renewed zooarchaeological research. Coring was also executed at Hálskot, a long deserted medieval small farms. The settlement archaeology team proceeded to excavate trenches in several earth walls from medieval boundaries and buildings and additionally collected data and created 3d models of number of farm mounds in order to estimate the farm mound size. Finally, the palaeoecological team also chose three sites for coring in Hörgárdalur, at Staðartunga and two others.

In 2021 the geologists team focused on the farm of Grund in Svarfaðardalur, discovering remains of screes from 1707 in their sample pits. In 2022 the team targeted three sites in Hörgárdalur for pit sampling, at Langahlíð, Búðarnes and Gásir. The geologists successfully identified what is very likely the location of the 14th-century manor farm of Langahlíð with a high degree of certainty. The scree that destroyed the farm in 1390, turned out to be 1-2 meters thick, and remains of human activity was found below the scree. The results from Búðarnes, also hit by a scree on the same day in 1390 as Langahlíð, were similar, as discussed in the key findings of WP 5 above.

All locations of research are marked on the map in fig. 1.

The history team proceeded with research on written and archaeological sources. The focus of the research of the history team was on one hand evidence, or lack of evidence, of early social stratification in written sources. Research focused on the office of goðorðsmenn and on the veracity of genealogical evidence in genealogical sources from the 12th to 14th centuries. On the other hand research was focused on the origin and development of small farms in the two valleys in the Middle Ages. Also under focus was the general theoretical approach to the kind of society evident in the two valleys during the ninth to 15th centuries. A third topic was the development of manor farms during the same period as the small farms appeared, in the 12th to 14th centuries. A fourth topic was the general status of the Late Medieval Elites in Iceland and their reaction to the crisis of the Black Death in the 15th century. In relation to this co-operation was initiated with a group of historians from Norway and Sweden, focused in the NTNU in Trondheim.

Lastly an MA student was occupied with researching and writing an MA-thesis on the various interdisciplinary approaches used for interpreting the effects of the Black Death in the area. The MA student compares archaeological reports on medieval settlement with research on written sources of the same area and is expected to graduate in 2025.

Also during 2021-2024, during the times they were not actively working in the field, the teams were focused on generating results from the field seasons. This goes for the archaeologists, who had documented their excavation profiles and who with the assistance of geologists determined the age of tephras in the profiles taken. Furthermore, all cultural remains were organized, cleaned, processed, catalogued, and curated according to cultural heritage management standards. The two PhD's of the project, one in zooarchaeology and one in palaeoecology worked on analysing the palaeoecological samples and archaeofaunal remains obtained in the field seasons.

The results of the project can be summarised as following: The archaeological and palaeoecological research has demonstrated a sequence of settlement that significantly challenges conventional understanding. Rather than a rapid colonization over a few decades, the result of the research in the two valleys suggest that the settlement process was more gradual. For instance, woodland clearance in Svarfaðardalur and Skíðadalur was not completed until the 12th century and new settlements, especially inland and smaller holdings, were still being established after 1100. This expansion was likely driven by increase in population. By 1100, an agricultural system had been established that was in many ways very similar to the system recorded in 1702-1714, even if an increased emphasis on sheep farming is evident over time. The project findings also reinforce earlier hypotheses suggesting an initially egalitarian society supported by analysis of the role of goðorðsmenn. An important contribution to the analysis of the environmental history of the Two Valley area has been made by geological team. The interpretation of the probability of very early settlement in Grund in Svarfaðardalur and of the existence of material remains of a 14th century manor farm at Langahlíð in Hörgárdalur were among the results. Further, the material remains of the medieval farm at Búðarnes in Hörgárdalur were located. The team also confirmed the consequences of a disastrous weather in the autumn of 1390, causing numerous landslides, including lethal ones at Langahlíð and Búðarnes in Hörgárdalur. The findings at Langahlíð provide a tangible evidence of an elite culture, that developed after 1100, as is well-documented in written sources.

Publications

List publications, manuscripts and conference proceedings, PhD and MSc thesis resulting from the project. Report how publications are in accordance with the IRF's open access policy.

WP 1

Research reports:

- Elín Ósk Hreiðarsdóttir (ed). 2022. *Power, Wealth and Plague in Two Valleys: Field report of 2021, Work Packages 1 & 2*. FS871-21021. Reykjavík. See: <https://twovalleys.hi.is/wp-1-settlementinvestigation/>.
- Elín Ósk Hreiðarsdóttir (ed). 2025. *Power, Wealth and Plague in Two Valleys: Field report of 2022, Work Packages 1*. FS936-21022. Reykjavík. Forthcoming.

Papers:

- Árni Daníel Júlíusson (2023). „Á eyðibýlum norðanlands“. *Árbók Hins íslenska fornleifafélagsins*, vol.110 volume, pp. 43–77.
- Elín Ósk Hreiðarsdóttir: *Beyond Two Valleys: Monumental Medieval Earthworks in Northern Iceland*. (*Medieval Archaeology or Journal of Nordic Archaeology*). In preparation.

Book Chapter (Planned):

- Elín Ósk Hreiðarsdóttir: *Settlement and Social Stratification in Two Valleys: New Archaeological Perspectives*

Conference Contributions:

- European Association of Archaeologists, Rome 2024: *Archaeological Indicators of Social Hierarchy in Medieval Iceland*.

WP 2. Midden Archaeology

Publications

Harrison, R. & H. M. Roberts. 2022. Skuggi Landnám Farm and Site Economy in Transition: An Assessment of the Structure A and Household Midden Remains from the Viking Age to the Medieval Period. In Mooney, D.E., L et al (eds.), *Expanding Horizons: Settlement Patterns and Outfield Land Use in the Norse North Atlantic*, UBAS – University of Bergen Archaeological Series 13, 65-84

Frasier, B., A., Springate, L., Frasier, T. R., Brewington, S., Carruthers, M., Edvardsson, R., **Harrison, R.**, Kitchener, A. C., Mainland, I., & Szabo, V. E. 2022. Genetic examination of historical North Atlantic right whale (*Eubalaena glacialis*) bone specimens from the eastern North Atlantic: Insights into

species history, transoceanic population structure, and genetic diversity. Marine Mammal Science, 1– 20. <https://doi.org/10.1111/mms.12916>

Papers in preparation

Holman, Luke. E., et al (in review, target date 2025). Ancient environmental DNA indicates limited human impact on marine biodiversity in pre-industrial Iceland, ***Philosophical Transactions of the Royal Society B*** ; Harrison is co-author in this Seachange publication

Harrison et al: Documenting Icelandic Fishery Heritage from the Siglunes Archaeology Ruins, Archaeologica Islandica 2025

Planned publications

Tracing human-animal-landscape records in Two Valleys (Book chapter)

A mosaic of environmental archaeology data to help refine our picture of medieval farming and fishing in Eyjafjörður

Research reports

Harrison, R. 2022. *Two Valleys Project – preliminary report on 2021 field investigations as part of the WP2 research*. In Elín Ósk Hreiðarsdóttir (ed). 2022. *Power, Wealth and Plague in Two Valleys: Field report of 2021, Work Packages 1 & 2*. FS871-21021.Reykjavík. See: <https://twovalleys.hi.is/wp-1-settlementinvestigation/>.

Harrison, R. 2023. *Two Valleys Project – preliminary report on 2022 field investigations as part of the WP2 research*. UiB, Bergen, HÍ & FSÍ, Reykjavík, June 2023

Conference talks

EAA

Harrison 2022: Medieval Movements along the Fjord and beyond in Arctic Iceland.

Harrison et al 2024: Pulling together Power, Wealth, and Plague in medieval Northern Iceland: Contextualizing interdisciplinary information to theoretically interpret human-ecodynamics in the Past

Møller Nielsen (PhD) 2024: Domestication and resource utilization in Northern Iceland

Møller Nielsen (PhD) and R. Harrison 2025: Social (re)structuring in northern Iceland – A zooarchaeological perspective

ICAZ Medieval Period Working Group, Bergen 2022

Harrison 2022: Scales of regional zooarchaeology in medieval Iceland

Global Challenges Conference, Bergen 2022

Harrison & Júlíusson 2022: The mechanisms of social change in medieval Iceland: A regional case study in Two Valleys

ESEH2025, Sigtuna

Harrison et al (planned): Cultural contexts informing multi-stranded histories of Viking Age to medieval human-ecodynamics in the Two Valleys Project in NE Iceland

Conference posters

ICAZ 2022 - Møller Nielsen (PhD) & Harrison: Medieval Zooarchaeology at Staðartunga farm in Northern Iceland. Establishing research protocol

EAA 2025

Møller Nielsen (PhD): Title to be published.

WP 3 History

Already published:

Axel Kristinsson: "Voru goðorð arfgeng fyrir 1100?" *Saga* 60:2 (2022), 116–144. English translation here:

https://www.academia.edu/114722934/Axel_Kristinsson_2022_Heritability_of_power_in_early_Iceland

Axel Kristinsson: "Skapandi ættfræði: Hvernig höfðingjar 12. og 13. aldar gerðu sig göfuga með skálduðum ættartölum." *Skírnir* 197:1 (2023), 9-35. [Creative genealogy: how the lords of the 12th and 13th centuries made themselves noble through invented lineages] Translation pending.

Árni Daníel Júlíusson (2022): *A Tale of Two Valleys. Settlement, land use and landownership in medieval Iceland*. Reykjavík: Sagnfræðistofnun/Háskólaútgáfa.

Árni Daníel Júlíusson: „Voru fornbýlin hjáleigur? Útbreiðsla og staða hjáleigna á miðöldum“ *Saga* 2:2024, 111-145.

In preparation:

Axel Kristinsson: *The More You Have, the More You Get: Early Iceland and the Evolution of Inequality*. A manuscript of about 350 pages. Unfinished due to limited funding.

Árni Daníel Júlíusson & Axel Kristinsson: "Class structure in Iceland 870-1500." Scheduled for the final publication of the 2V project.

Axel Kristinsson & Árni Daníel Júlíusson: "Manor formation in early Iceland." Intended for an international historical journal. First draft is ready.

Axel Kristinsson & Árni Daníel Júlíusson: "Tithe and the *hreppar* local organizations." First draft is being prepared.

Árni Daníel Júlíusson: „A Late Medieval shock doctrine: The reaction of Icelandic elites to decline in income in the late middle ages“. To be published as a part of the *Late Nordic Elites* anthology, editor prof. Magne Njåstad in Trondheim.

Conference presentations:

Axel Kristinsson: "Theoretical stuff" at the Two Valleys meeting in Reykjavík 3 March, 2023.

Axel Kristinsson: "Upphaf stéttskiptingar á Íslandi" [The origin of class division in Iceland] in *Málstofa í félags- og hagsögu*, scheduled for 25 February 2025.

Árni Daníel Júlíusson: „Landnám og byggðapróun um miðbik Eyjafjarðar“. Íslenska sögupingið 2022.

Árni Daníel Júlíusson: „Kristnihald og landnámsjarðir í Dölum, Eyjafirði og Skagafirði“. Ráðstefna um byggðasögu á Hólum í Hjaltadal, 30. september 2022.

WP 4. Palaeoecology

Papers in preparation (in which environmental Two Valleys data are used)

Elísabet Ásta Eypórsdóttir, Egill Erlendsson, Wesley R. Farnsworth and Árni Daníel Júlíusson: Two farms, two environmental legacies: comparing social standing and environmental impact during Iceland's settlement (working title; initial draft is ready). The Holocene (planned).

Oscar Aldred et al.: Shielings in Iceland: a biography (working title; initial draft is ready). Landscapes (planned).

Papers planned:

Elísabet Ásta Eypórsdóttir et al.: Land use and plague in medieval Fnjóskadalur, North Iceland (working title).

Elísabet Ásta Eypórsdóttir et al.: Landnám, land use and environment at a high-status farm in Hörgárdalur, North Iceland (working title).

Conference talks:

Elísabet Ásta Eypórsdóttir et al. 2024: Two farms, two environmental legacies: comparing social standing and environmental impact during Iceland's settlement. European Association of Archaeology Meeting. Rome, August 28-31, 2024

Egill Erlendsson, et al. 2023: The Black Death in Iceland: environmental responses, climate and society. Palaeoarc, Akureyri, August 27-30, 2023.

Elísabet Ásta Eypórsdóttir et al. 2023: Two farms, two environmental legacies: comparing social standing and environmental impact. Palaeoarc, Akureyri, August 27-30, 2023.

Conference posters:

Egill Erlendsson & Elísabet Ásta Eypórsdóttir, 2022: Landscape stability over 1100 years of pastoral farming in North Iceland. European Association of Archaeologists. Budapest, August 31-September 3, 2022.

Elísabet Ásta Eypórsdóttir & Egill Erlendsson, 2022: Ecological impact of human occupation in Skíðadalur in North Iceland: preliminary results. 51st International Arctic Workshop. Longyearbyen, Svalbard, June 19-23.

WP 5 Geomorphology and natural hazards

Publications

Halldór G. Pétursson (2022), „Skriðuföllin í Hörgárdal árið 1390 og afdrif Gásakaupstaðar. Staðreyndir, hugmyndir og tilgátur.“ Heimaslóð, árbók Hörgársveitar. 19. hefti.

Publications in preparation

Two scholarly articles on the subject of the WP.

WP6 Black Death Synthesis Study

The completion of Sólborg Una Pálsdóttir's MA thesis is expected in June 2025.

A short summary of the project in English and Icelandic, to be published on the IRF website and Rannís may use in its communications

A short easily understandable description of the project, its results and impact

The Two Valley project is concerned with analysing social, economic and environmental changes in the two regions of Svarfaðardalur and Hörgárdalur, located in Eyjafjörður in Northern Iceland. The period in question is 877-1500 and comprises the settlement, consolidation of settlement until 1100, the diversification of settlement with the appearance of manors and subtenancies besides main farms (lögbýli) after 1100 and the sudden collapse of society after the Black Death in 1402-1404. The project is interdisciplinary, with two archaeology teams, one historical team, a palaeoecological team and a geological team active in the project. Two PhDs, one in zooarchaeology and one in palaeoecology are active in the project, with one MA student contributing to Black Death documentary research. The results so far comprise a broad and diverse picture of the development of the two valley regions. The original settlement was on the coast and in the lower parts of the valleys, with further settlement developing after that in the upper part of the valleys. All farmland was occupied by 1100 or so. After that, however, there was further expansion with subtenancies developing on already settled main farms. The eventual settlement was considerably larger, with more farms than observed in later times. The area possibly had close to 400 farms in the 14th century, compared to around 300 at a later high mark of settlement in the 17th century. After the Black Death, the decline in the number of settled farms was extreme. Only about 70-100 farms were settled in the middle of the 15th century, similar to the settlement numbers at around 1000. The research impact is such that we now have a considerably clearer picture of the settlement process in the area, and that of the social development. It seems that early society was egalitarian, with notable social differences only appearing in the 12th century. The Catholic Church became very influential in the area after 1200 and especially in the 14th century, acquiring a large number of farms that were turned into tenant farms of the church.

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Tveggja dala verkefnið snýr að því að greina félagslegar, efnahagslegar og umhverfislegar breytingar í Svarfaðardals og Hörgárdalshéruðum í Eyjafirði. Tímabilið sem hér um ræðir er 877-1500 og felur í sér landnám, þéttingu byggðar til 1100, aukinni fjölbreytni byggðar með myndun höfuðbýla og hjáleigna eftir 1100, og skyndilegt hrun þjóðfélagsins eftir svartadauða 1402-1404. Verkefnið er þverfaglegt, með tvö fornleifateymi, eitt sagnfræðiteymi, fornvistfræðiteymi og jarðfræðiteymi starfandi í verkefninu. Tveir doktorar, einn dýrafornleifafræðingur og einn fornvistfræðingur eru virkir í verkefninu, sem og MA nemi í sagnfræði. Niðurstöðurnar til þessa fela í sér breiða og fjölbreytta mynd af þróun dalsvæðanna tveggja. Upprunalega byggðin var við ströndina og í neðri hluta dalanna en eftir það þróaðist frekari byggð í efri hluta dalanna. Allt ræktað land var numið um 1100 eða svo. Eftir það varð hins vegar frekari fjölgun býla með framleigu á hluta af landi þegar byggðra lögbýla. Byggðin varð talsvert meiri, með fleiri bæjum, en síðar hefur sést. Mögulega voru á svæðinu hátt í 400 bæir á 14. öld, samanborið við um 300 við síðara hámarki byggðar á 17. öld. Eftir svartadauða var fækkun byggða býla mikil. Aðeins um 70-100 býli voru í byggð um miðja 15. öld, svipað og byggð var að líkindum um 1000. Áhrif niðurstaðna eru verulega skýrari mynd af byggðarferlinu á svæðinu og af þjóðfélagsþróuninni en áður var fyrir hendi. Svo virðist sem samfélagið hafi upphaflega verið jafnréttissinnað, þar sem verulegur félagslegur munur kom fyrst fram á 12. öld. Kapólska kirkjan varð mjög áhrifamikil á svæðinu eftir 1200 og sérstaklega á 14. öld og eignaðist mikinn fjölda jarða sem breytt var í leigubýli kirkjunnar.

· **Information on how the results will be applied**

Although the project has finished its operations in the RANNÍS grant of excellence context, it has both been active before the grant, and will be active after the grant.

The project provides a valuable context for two research projects that have received project grants from RANNÍS, Transice (2022-2024) and IceDes (2025-2028). These projects also have important continuities in their staff.

The writing of the key publication is also under way. A meeting is planned in the autumn to discuss the volume and the results of the project. Legacy data management will hopefully be undertaken in collaboration with the Municipal Museum of Svarfaðardalur/Dalvík in Dalvík. Ideas for an exhibition of the results are also being discussed with the Dalvík museum and others.

A list of the project's outputs (outputs published in print publications, as of February 2025)

- Axel Kristinsson: "Skapandi ættfræði: Hvernig höfðingjar 12. og 13. aldar gerðu sig göfuga með skálduðum ættartölum." *Skírnir* 197:1 (2023), 9-35. [Creative genealogy: how the lords of the 12th and 13th centuries made themselves noble through invented lineages] Translation pending.

- Axel Kristinsson: “Voru goðorð arfgeng fyrir 1100?” *Saga* 60:2 (2022), 116–144. English translation here.
https://www.academia.edu/114722934/Axel_Kristinsson_2022_Heritability_of_power_in_early_Iceland
- Árni Daníel Júlíusson (2022): *A Tale of Two Valleys. Settlement, land use and landownership in medieval Iceland*. Reykjavík: Sagnfræðistofnun/Háskólaútgáfa.
- Árni Daníel Júlíusson (2023). „Á eyðibýlum norðanlands“. *Árbók Hins íslenska fornleifafélagsins*, vol.110 volume, pp. 43–77.
- Árni Daníel Júlíusson (2024), „Fyrstu jól í Eyjafirði“ *Norðurslóð* 12. tbl. 2024.
- Árni Daníel Júlíusson (2022), „Tveir dalir í Eyjafirði – Svarfaðardalur og Hörgárdalur. Rannsóknir á miðaldasögu og miðaldaleifu 2021 til 2023. *Súlur* XLVII 2022, 147-160.
- Árni Daníel Júlíusson: „Voru fornþýlin hjáleigur? Útbreiðsla og staða hjáleigna á miðöldum“ *Saga* 2:2024, 111-145.
- Elín Ósk Hreiðarsdóttir (ed). 2022. *Power, Wealth and Plague in Two Valleys: Field report of 2021, Work Packages 1 & 2*. FS871-21021. Reykjavík.
- Elín Ósk Hreiðarsdóttir (ed). 2025. *Power, Wealth and Plague in Two Valleys: Field report of 2022, Work Packages 1*. FS936-21022. Reykjavík.
- Frasier, B., A., Springate, L., Frasier, T. R., Brewington, S., Carruthers, M., Edvardsson, R., **Harrison**, R., Kitchener, A. C., Mainland, I., & Szabo, V. E. 2022. Genetic examination of historical North Atlantic right whale (*Eubalaena glacialis*) bone specimens from the eastern North Atlantic: Insights into species history, transoceanic population structure, and genetic diversity. *Marine Mammal Science*, 1– 20. <https://doi.org/10.1111/mms.12916>.
- Halldór G. Pétursson (2022), „Skriðuföllin í Hörgárdal árið 1390 og afdrif Gásakaupstaðar. Staðreyndir, hugmyndir og tilgátur.“ *Heimaslóð*, árbók Hörgársveitar. 19. hefti.
- Harrison, R. & H. M. Roberts. 2022. Skuggi Landnám Farm and Site Economy in Transition: An Assessment of the Structure A and Household Midden Remains from the Viking Age to the Medieval Period. In Mooney, D.E., L et al (eds.), *Expanding Horizons: Settlement Patterns and Outfield Land Use in the Norse North Atlantic*, UBAS – University of Bergen Archaeological Series 13, 65-84