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The Missing Link: Websites as outreach tools and an analysis of (online) public outreach strategies in archaeology and how they could benefit Icelandic archaeology

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www.seydisfjordurarchaeology.com

Arthur Knut Farestveit

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2223-HS Master Graduation Project Applied Archaeology

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1. Introduction

1.1 A short introduction to Icelandic archaeology

The history and archaeology of Iceland are short compared to most other landmasses in the world. Iceland is one of the last major landmasses to be occupied by people, along with large islands such as New Zealand (Vésteinsson & Friðriksson, 2003, p. 139). It has been firmly established that Iceland was settled in the latter half of the 9th century, the oldest dates being around 870 AD, by Norse peoples, mostly from Norway and the British Isles. Confirming this chronology has a long research history. The medieval manuscripts of *The Book of Icelanders* (*i. Íslendingabók*) written in the 12th century calculated that settlers from Norway and the British Isles were arriving around 870 AD (Vésteinsson, 1998, pp. 1–2). This date was confirmed with the discovery of the ‘Settlement tephra layer’ that fell around the same time as the first settlers arrived. Most archaeology is found just on top of this tephra layer (Schmid et al., 2017, p. 65). Scholars (and the Icelandic people) viewed the sagas and other manuscripts as absolute fact and found little need to question them (Vésteinsson, 1998, p. 1). Iceland was not untouched by antiquarian interests in the 19th century and romantic ideas of the past, so excavations were attempted in the latter half of the 19th century to find locations and confirm the events of the sagas. Excavations at this time mostly revolved around locating a building, emptying out the “contents” and studying the shape of the building (Vésteinsson, 2004, pp. 82–87). In 1939 a joint archaeological expedition to Þjórsárdalur valley, in southern Iceland, run by a team of Nordic archaeologists interested in the Norse settlements of Greenland and Iceland, was a boost to Icelandic archaeology. Two

students by the name of Kristján Eldjárn, who studied archaeology, and Sigurður Þórarinnsson, who studied geology, received their excavation training with this group. Þjórsárdalur valley was abandoned in the medieval period due to severe volcanic activity and Þórarinnsson theorised that each eruption could be dated. He published his doctoral thesis in 1944 introducing tephrochronology (Steinþórsson, 2011) which has been a cornerstone of Icelandic archaeology ever since. Eldjárn’s doctoral thesis, a catalogue of all pre-Christian burials and a chronology based on the typology of the artifacts found in the burials, was a major contribution to Icelandic archaeology (Friðriksson, 2016). His influence on Icelandic archaeology will be discussed further in Chapter 3.

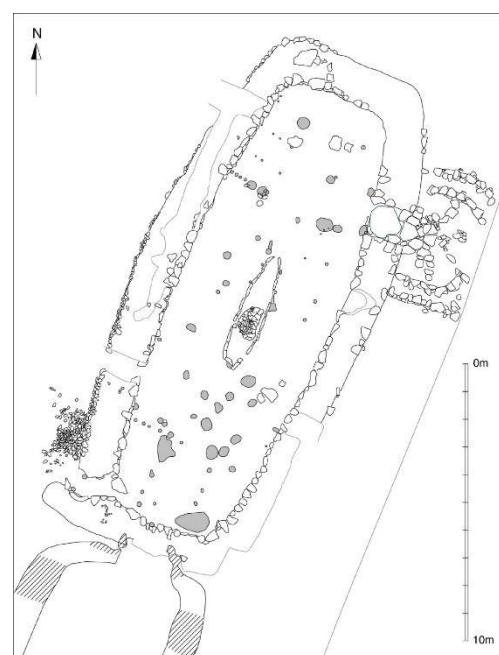
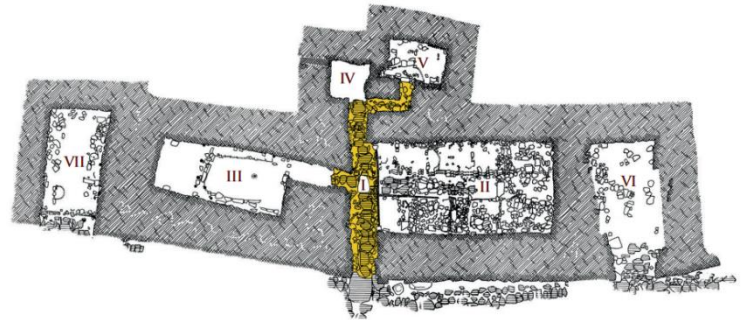


Figure 1. Aðalstræti longhouse. A settlement period longhouse from Reykjavík, a simple oval shaped structure with a hearth in the middle (Roberts, 2001).

For most of Icelandic history, people built their houses out of turf with only the frame of the house built of wood and stones used as a foundation, pavement and occasionally as roofing material. Tephra layers are often found in the turf blocks of buildings enabling archaeologists to date the buildings, sometimes very accurately. These houses need constant maintenance, and their design adapts to changing climatic conditions,



which is observable in the archaeology. Houses evolved slowly over time, from the Viking Age longhouses that were essentially one room, into the early modern hallway

Figure 2. The longhouse from Gröf í Örfjum. Marked in yellow is a hallway connecting the rooms of the longhouse. From "Frá skála til gangabæjar: Húsagerð á miðöldum" by G. Ólafsson, 2004, Hlutavelta tímans. (https://www.academia.edu/44937761/Fr%C3%A1_sk%C3%A1la_til_ganga_b%C3%A6jar_H%C3%BAsager%C3%B0_%C3%A1_mi%C3%B0%C3%B6ldum_pdf)

farm as more smaller rooms were added and connected via a hallway. The main reason for this change was to save consumption of fuel and to retain heat (Ólafsson, 2004, pp. 132–138). When the first settlers arrived, large areas of the island were covered with birch forests, but over time many different factors resulted in their almost complete disappearance (McGovern et al., 1988, pp. 229–230). This meant that peat became the main source of fuel until the 20th century (Vésteinsson et al., 2004, p. 186). As very little of subsistence grows on the island, whether naturally or cultivated, people lived mainly on a sheep, cattle and fishing economy.

The first centuries of Icelandic history have been divided into time periods, framed by important historical events. The settlement period is regarded between the arrival of the first settlers in 870 and when the Althing was founded in 930. The period between 930 and 1262 is the Commonwealth period when small chieftains ruled over different parts of the country and no monarch ruled over Iceland. During this period the entire country was Christianised by law at the Althing in the year 1000. Around 300 “heathen” graves are known from before Christianisation, characterized by grave goods. After Christianisation, small churches with graveyards appeared on large estate farms and the Catholic church became very powerful during this period. The church was reformed to Protestantism in 1550, which was mostly caused by Iceland becoming part of the kingdom of Denmark-Norway in 1521 which reformed. This is seen in the archaeology as there are drastic changes in the organisation of the church in the 16th century, for example, the end of monasticism. The history of Iceland was greatly influenced by Denmark throughout the late medieval and early modern periods, as law and trade were dictated by Denmark (Karlsson, n.d.).

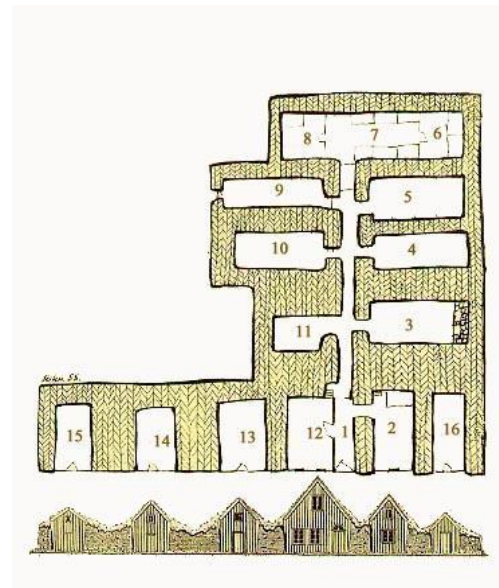


Figure 3. Glaumbær hallway farm. A 19th century farm where a central hallway connects most rooms, the farm is preserved and is a museum today. From "Sýningin í gamla bænum" by Byggðasafn Skagfirðinga museum, n.d. (<https://www.glaumbaer.is/is/syningar/mannlif-i-torfbaejum/syningin-i-gamla-baenum>, accessed 15/06/2023)

1.2 Previous research at Fjörður and the scientific and societal significance of the site

Avalanche protection walls were planned to be built to protect the village of Seyðisfjörður, in Eastern Iceland. Avalanches are well documented in the area and have taken many lives throughout history. Avalanche protection walls work by diverting a coming avalanche away from inhabited areas and must be situated in an area where there is a high likelihood of an avalanche in the future. The local community has anticipated the walls since 1998 when planning first started so their construction was well overdue. There will be three walls covering a vast area affecting known archaeology, which by law must be excavated. Preparation started in the summer of 2020 and excavation in 2021. The work was planned to be finished in the summer of 2021 but much more was unearthed than ever anticipated so the research was followed up in the summer of 2022 and will likely continue in 2023.

In short, a mill, a 19th to 20th-century farmhouse, an 18th-century passage farm, medieval buildings and a Viking-age graveyard were fully excavated in 2021. In 2022, more buildings from the medieval period were found; a longhouse (at least two phases, an older and a younger), an outhouse, a weaving room, a midden containing many artifacts and many other small buildings whose purpose is still being determined. In the summer of 2022, the team found ceramic sherds of a bowl that is 900-1000 years old, an extremely rare find for Iceland.

On the 18th of December 2020, landslides fell upon the eastern part of the Seyðisfjörður village after heavy rainfall. Thankfully no one was hurt as the houses were evacuated just in time, but the landslides took twelve houses, some of which are unique historical buildings and the village's local museum. Avalanches were a known threat, but no one was prepared for a landslide, not of this scale at least. When the team started excavating in 2021 it became apparent that landslides had happened many times before in the fjord's history. Old layers of landslides were found in between occupational phases, such as between the medieval phases and between the medieval and modern phases. The excavation team was able to use the landslide layers as an archaeological dating tool paired with the usual tephra-dating that is common in Iceland.

Tephrochronology dates the landslides using four major tephra layers in the region. The composition and volume between landslides are also different. Some landslides were very coarse and gravelly, and contained rocks and boulders it took with it down the mountainside. Others were very fine, sandy and had very few rocks. Cores and test trenches were used in 2020 to date and map the landslides but it was not until the full area was opened that the scale of them was realised. It was then possible to finetune their dating and see how the landslides interacted with the archaeology.

It seems that either people are quick to forget events like this and build anew or simply don't have the option to move. Interestingly there are old accounts of avalanches dating hundreds of years but very little information about landslides. Landslides will become a greater threat in the future as climate change destabilizes the environment. The archaeology however revealed that landslides have always been a threat in the region. In a sense, these landslides are a thread that connects the modern inhabitants to past peoples.

Seyðisfjörður is a municipality in eastern Iceland with 685 residents. Landnámabók (*e. The Book of Settlements*) tells the story of the settlement of Iceland. According to the book, in

the 9th century, a chieftain by the name of Bjólfur from Norway settled the fjord and after his death, the land was divided among his children. If the medieval manuscripts are correct it is likely that the people buried in the Viking Age graves are his descendants.

Seyðisfjörður receives thousands of tourists every summer. They either come with a ferry from Denmark, usually with their own cars looking to travel the country, or via cruise ships for a short stop. Some of them go on tours around the village and into the neighbouring countryside. This master's project is first and foremost thought with the people of Iceland in mind but there are future opportunities for archaeo-tourism in the region. Two other archaeological excavations have been done in the fjord in the past and a new small-scale project is underway by a local archaeologist. In the future, these could also be turned into an exhibit on the website but this project's sole focus is on Antikva's research.

The phenomenon and occurrence of 'avalanches' and 'landslides' throughout history will be an important theme. These events are well documented in the area and occurred regularly throughout history. Still, the location of the site remains inhabited.

1.3 Research aims and questions

Main question:

What narrative can be told about the long-term history of the archaeological site Seyðisfjörður, including the ongoing influence of the landslides, and how can we translate that narrative to the general public?

Questions:

1. What is the deep history of the site Seyðisfjörður based on the archaeological results?
What do we know about the different periods? How do they relate to each other?
2. How does the placing of the site Fjörður within the landscape relate to its history?
What is the role of landslides? Did inhabitants learn from the past?
3. What has been done considering the public outreach of the site Seyðisfjörður and how could that be improved and/or incorporated?
4. Why is it important to make archaeological research (more) accessible to the public?
Why in general and why for Iceland (region)?

5. How can we make the narrative about this site Seyðisfjörður based on the archaeological research (more) accessible to the local public and tourists (from abroad)?
6. How can we use websites as a tool for making archaeology accessible to the public?
7. Do websites still have a relevance as a public outreach tool in archaeology or has social media made them irrelevant? If they are still relevant how should they be applied?

1.4 Relation between academic paper and product

The product is a website, created as a kind of digital gallery or exhibit that displays the results so-far of the excavation to the viewer. More of our waking lives are spent in front of screens, be it work, communication or leisure. There is no reason for this to change anytime soon, in fact, it's likely that it will become more and more part of our lives. Therefore, it is only natural that people's tangible heritage should follow. Putting up exhibitions is expensive, takes up plenty of space, it requires manpower and artifacts need conservation. Not to mention that an exhibit can only be present in one space at a time. People's accessibility to their heritage is key. The website aims to present and conserve the heritage found in Seyðisfjörður both for the people of Iceland and the world. The website is intended to be a background to the archaeological project and to spark people's interest.

The website is hosted through Squarespace but a unique domain was acquired and hosted at Google Domains. By using a website builder like Squarespace, a lot of time can be saved in starting up and designing the website because no prior coding knowledge is needed.

The website, its contents and purpose stand as an example of a handy way to do archaeological outreach. The Seyðisfjörður site has the potential to be a good example. The site is rich with archaeology from all time periods in Icelandic history in a single location. The site is being excavated commercially as a part of a public safety infrastructure project so most if not all the archaeology will be completely excavated and the location buried under the walls. This cannot be avoided. The website is a tool that enables people to see and learn about the site after it is gone.

1.5 Dataset, methodologies and theories including what is ‘the public’?

Educating the public about archaeology will always be relevant but exactly how is the question. Archaeological results are rarely communicated to the public and when they are it is often in a limited way. Most archaeological results are published in reports which are not interesting and rarely legible to the public. Websites, on the contrary, are easily accessible and should be easy to navigate and understand. The information in them is easy to update and it’s easy to try out different presentation styles. This is the opposite of a sign put up where an excavation happened, only accessible in a single location and is hard to update. In the digital world information about archaeology and heritage should be easy to find, or rather, find the reader. Tangible heritage is inherently visual and therefore should preferably be presented through visual media like pictures and videos.

The data used is the data acquired from the excavation at Seyðisfjörður in the form of excavation reports and photographs taken of the site and of the artifacts. The data is provided by the commercial archaeology company Antikva Pvt; Ltd. which owns it and it is published with their consent and knowledge.

The term ‘public’ in this paper is used to describe the society of people that stands outside of archaeology. The product is intended as a medium for a very broad range of people outside of academia that collectively own or enjoy the tangible heritage of Iceland.

1.6 Reading guide

Concerning Icelandic placenames, a noun describing the placename is used to provide the reader with context of the site as is customary. For example, following ‘Skógarfoss’ the noun ‘waterfall’ follows explaining that the placename is a waterfall. When placenames of fjords come up this will not always be the case as the Icelandic word for ‘fjord’ is ‘fjörður’ to avoid the text being too crowded with the word.

Names of people and placenames will have their original Icelandic spelling. The letters Þ – þ and Ð – ð are pronounced as ‘th’ in English like in the word ‘theory’

2. The archaeological results of the research at the site Fjörður (Iceland)

2.1 Introduction

The archaeological site ‘Fjörður’ (*e. Fjord*) is named after a historical farm that stood close to the site where the farm mound is still visible in the landscape. It is located on a gentle hill on the northern edge of the village of Seyðisfjarðarkaupstaður in the fjord of Seyðisfjörður in eastern Iceland (fig. 4). The village and surrounding farms are part of Múlaþing municipality. Steep mountains dominate the landscape, and the threat of so-called avalanches is a well-known and recorded phenomenon within this region. Three avalanche protection walls are planned to be constructed in the fjord below Bjólfur mountain to shield the village. In anticipation of this, archaeological prospective research was carried out in 1998 in the form of test trenches (Ólafsson, 1998). Not directly related to the construction of the walls but relevant to the area, an archaeological survey was done in 2009 as part of the municipality’s general zoning plan in which 219 archaeological sites and features were found in and around the village. Most related to agriculture, like sheep sheds, but also house foundations from around 1900 when the village industrialized and military remains like barrack foundations from the Allied occupation of the fjord from

World War II. (Borgþórsson & Pétursson, 2009, p. 111). Another survey was done in 2019 as preliminary for the construction of the walls that found 61 archaeological remains and structures that would be affected by the construction. Ten of the surveyed remains from the 2019 survey are not protected by law but

have historic value as they are from the Allied occupation (Zoëga & Zoëga, 2019, p. 42). The walls would cover archaeological sites that need

to be excavated and work started in 2020 with coring, test trenches and one structure (structure A) was fully excavated. (Traustadóttir & Þórhallsdóttir, 2020). These preliminary excavations were then followed by full-scale excavation in 2021 (Traustadóttir et al., 2022, 2023) and 2022.



Figure 4. Fjörður farm in 1896. Nationalmuseum of Copenhagen, n.d. (<https://samlinger.natmus.dk/dmr/asset/164303#tags>)

The deadliest avalanche in recorded Icelandic history fell on the 18th of February 1885 from the mountain Bjólfur on a farming neighbourhood on the northern side of the village. Twenty-four people perished, seventy-two people were injured and fifteen houses were destroyed (Árnason, 1975). This tragedy highlights the importance of the upcoming protection walls. There has been little experience in excavating archaeology known to be hit by an avalanche in Iceland. From an archaeological perspective it was interesting to see what happens to the remains of turf structures hit by such a force, are they crushed, flattened, spread out or is the structure washed away leaving only the base? A trench was dug in the middle of the farm mound. Based on the preserved remains of a house that dated to the 1885 avalanche and other older structures a full-scale investigation of the area was executed.

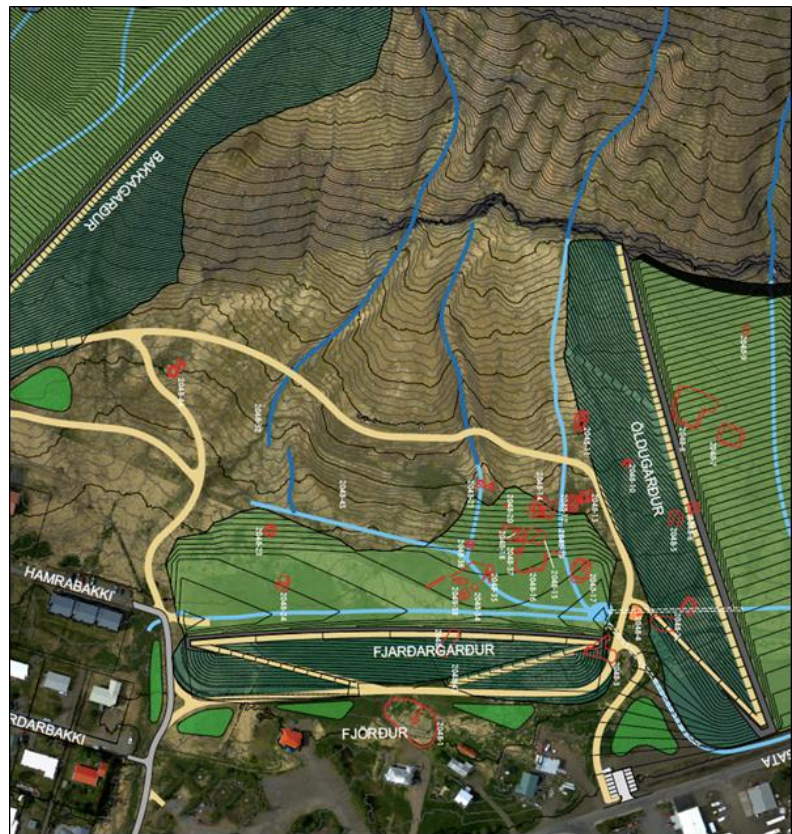


Figure 5. Avalanche walls and archaeology. In darkgreen are the proposed avalanche protection walls and known archaeology in red, notice the Fjörður farm mound outlined in red at the bottom of the figure. (Ragnheiður Traustadóttir & Rannveig Þórhallsdóttir. 2020. p.3)

In the 2021 season the farm mound, a sheep shed and a mill that couldn't be preserved due to the construction works of the protection walls were excavated. This is the first time a mill has been archaeologically excavated in Iceland. The farm mound was named site B, the sheep shed site C and the mill site D. In the 2022 field season, four new areas were opened named E, F, G and H. The results are discussed in the following paragraphs.

2.2 The landscape of Seyðisfjörður. Relation between landscape and history

The physical landscape of Seyðisfjörður is characterized by the tall, steep mountains that rise just over 1000 meters above sea level, their tops being covered in snow for most of the year. No roads to the fjord are lower than 600m above sea level. The fjord makes an excellent harbour as it narrows from the sea west to south-west, it bends so that from the bottom of the fjord you cannot see the open ocean. Lowland areas are scarce but grazing fields are plenty (Borgþórsson & Pétursson, 2009, p. 15). Weather in Seyðisfjörður changes rapidly. This is due to the size and height of the Eastfjords mountain range, in combination with the

Vatnajökull glacier, which results in greater temperature change than elsewhere in the country. In short, this means, on average, hotter summers, colder winters and less precipitation than elsewhere on the island. Fog from the sea is also a regular occurrence (Guttormsson, 1974, pp. 36–37).

Iceland is an active volcanic island where eruptions happen regularly. This results in tephra layers dispersed around the country that geologists and archaeologists have been dating and mapping over the decades using various methods. These layers are perhaps the most used dating tool in Icelandic archaeology (Vésteinsson, 1998, pp. 2–4). In Seyðisfjörður nine tephra layers have been found and identified geologically. Four out of the nine were found when excavating the farm mound in 2021 and they give a good time frame that is easy to work with. They are named after the



Figure 6. Seyðisfjörður. View from the summit of Bjölfur mountain. Abe/Getty Images, n.d.

<https://www.gettyimages.co.uk/detail/photo/sey%C3%B0isfj%C3%B6r%C3%B0ur-royalty-free-image/163950942?adppopup=true>, accessed 15/06/2023)

first letter/s in the volcanic systems name and then the year it erupted; A-1875, V-1477, Ö-1362 and V-Sv-940. In 2022, on site F, two new tephra layers were found H-1158 and H-1160. These layers are not found evenly across the site and their amount or presence is dependent on the type of eruption, the landscape the tephra falls into and human factors, for example, the farmers might try to rake the tephra off their fields to save the grass. Nonetheless, there were more than sufficient amount of layers to work with that aided in determining the phases and chronology of the site.

2.3 Landslides

Three landslides have been found and identified. Landslide from ~1100 AD, ~1200 AD and a landslide from ~1400 AD. The cohesion between the tangible culture of Fjörður, the landslides and the avalanches is interesting. It is a devastating event for a farmer to have a landslide fall on his land even if people and animals are spared. Pastures, fields and crops would be covered in thick mud for perhaps years before the landscape recovers, and it would have been a difficult hurdle and still is in areas affected in the modern day. They possibly tried to minimize the damage by scattering dung on areas covered in landslide to get grass growing sooner. The people that settled the east fjords of Iceland were from modern-day

Norway, a country dominated by steep mountains and deep fjords. Landslides are common in Norway today and always have been but their frequency depends on climatic fluctuations (Grove, 1972). The settlers were familiar with a landscape like the one Seyðisfjörður and the East Fjords so avalanches, rockslides and landslides were already familiar events to the settlers. After the Age of Settlement (870 – 930 AD) most habitable spaces in Iceland had been claimed and settled by people (Smith, 1995, pp. 319–320), so after that there were limited options for people to re-settle in a safer location. If a landslide damages a farm and partly covers the land in mud, the farmer usually has no other choice than to cut his losses and continue farming to the best of their ability. Sometimes a landslide will completely devastate a farm and the survivors will have to find refuge somewhere, however in such cases, it is likely that people will once again settle the land as soon as it is grown again (Viðarsdóttir, 2022, pp. 28–29). Sources about landslides in the Eastfjords from the medieval and post-medieval periods are severely lacking. Where they are present it is difficult to determine whether a landslide, rockfall or an avalanche was recorded as the same word was used for both instances - *'skriða'* (Jónsson, 1992a, p. 29). One source from the early 19th century describes the mountains of Seyðisfjörður as very steep and they hold little grass and vegetation due to regular rockslides but that in older days the mountains were covered in vegetation (Pétursson & Jónsson, 2001, p. 16). Another source from the late 18th century simply says that the farm Sléttanes in northeastern Seyðisfjörður was destroyed by a landslide in 1716 (Jónsson, 1992b, p. 76).

There seems to be a local memory of landslides preserved in the sagas and folktales from this area. Loðmundur the Old, Bjólf's blood-brother, settled Loðmundarfjörður, the next fjord north of Seyðisfjörður but only stayed for the winter. Next year, as he was done loading his ship and ready to sail out, a thundering sound was heard and people on the boat saw a landslide hit Loðmundur's farm. Witnessing this he laid a curse upon the land "*that no seagoing ship shall ever put in safely here*" (*The Book of Settlements: Landnámabók*, 1972, pp. 115–116). A folktale much later recorded tells the story a little bit differently. As the landslide was about to hit the farm, Starkaður, one of Loðmundur's men, grabbed a shovel, pointed it at the moving landslide, said a magical incantation and split the landslide in two diverting it from the farm and saving it. After this event, Starkaður settled the farm when Loðmundur moved south (Sigfússon, 1986, p. 43). The Book of Settlements describes Loðmundur as a sorcerer (*The Book of Settlements: Landnámabók*, 1972, p. 115), perhaps his curse can be interpreted as him trying to make sure future people do not settle in such an

unsafe location. Another folktale from Seyðisfjörður tells of Brandur, an aged fisherman who was known both for his fishing skills and knowledge of sorcery. After being denied room on a boat he got angry, and walked up to a nearby cliff in the southeastern fjord where he used his magic to set forth a landslide that buried 30 boats close to Skálanes farm (Sigfússon, 1986, p. 52)

2.4 The hallway farm

At the farm mound multiple structures were excavated including a basement, hallway, shed, storehouses and a cabbage patch along with multiple other rooms. The uppermost cultural layers were heavily disturbed in the modern period. After the site was abandoned, it was turned into a trash dump most likely by neighbouring houses covering most of the site with two modern trash layers dating to the late 19th – early 20th century. A large portion of the finds came from these two layers. Dug into the remains of the farm mound were cuts and pits where more trash was dumped and stays from utility poles were anchored. There was a series of modern pits where animals had been buried, both farm animals, pets and wild birds. There were also multiple pits from the second world war filled with crushed, metal cans that once contained meal rations for the soldiers stationed at Seyðisfjörður (Traustadóttir et al., 2023). The buildings that date to the 19th century are a type of Icelandic hallway farm where a central hallway connects all the rooms of the farm.



Figure 7. Icelandic hallway farm. Pictured in the centre a paved hallway, behind it the basement. (Traustadóttir et.al, 2022)

2.4.1 Finds from the 19th century farm mound

In total 2669 finds were recovered from the farm mound, most of them measured in using a total station. The finds are very representational for their time period. Most of the ceramic

finds are modern from the late 19th to the early 20th century and most are some kind of tableware. Glass finds are mostly from bottles and windows. Stone finds are mostly whetstones, fish hammers, weights, and strike-a-lights. The metal artifacts found are varied Fishhooks, construction material, house and-table ware, ammunition, tools, cans, and currency. The finds can be interpreted and analysed in a myriad of ways but overall the finds reflect a major change to Icelandic society where people were able to import a greater amount and variety of consumer goods like decorated tableware, alcohol, cosmetics and construction material for modern buildings. The youngest artifacts are 17 plastic finds that signal a further shift in material culture in the first half of the 20th century.

2.4.2 The mill

The mill ruin was named site D and was located a few hundred meters south of the farm mound site (site B). It is a water mill built on a slope that got its power from a nearby stream that was diverted into the mill (Traustadóttir et al., 2022, pp. 23–24). In the second half of the 18th century, inspired by ideas from the Enlightenment, it was proposed that all Icelanders should



Figure 8. Mill during excavation. (Traustadóttir et al., 2022, p. 45)

have access to either a mill in their parish or a grinding stone in the home. This

could lower the cost of imported grain to the country and increase shelf life. The idea caught on and within a few decades there were mills (mostly water mills) all over the country. Historical sources for the number of mills in Seyðisfjörður are lacking but there are four place names in the Seyðisfjörður parish that indicate the presence of a mill and the mill on site D is in one of those (Traustadóttir et al., 2022, pp. 25–31).

The mill was built of turf and stone and its mechanism of wood and iron. The stream came in through the western wall and out the eastern wall. A little dam had been built out of stone slabs and wood to collect water. A lateral ditch had been dug around the mill

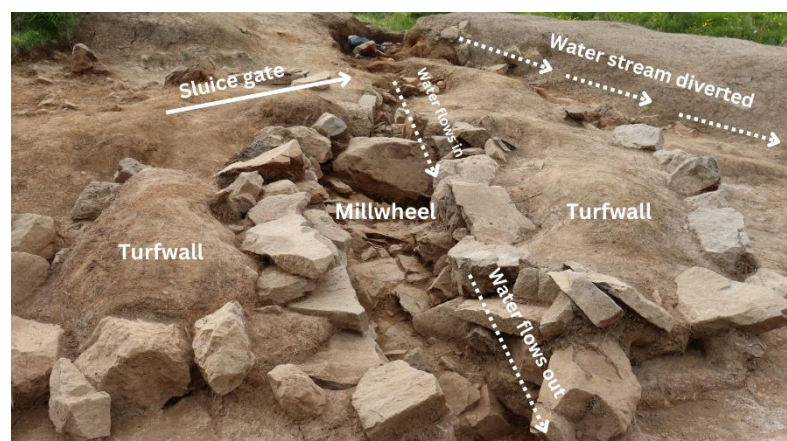


Figure 9. Mill during excavation with illustrations. Antikva, 2021. Edited by Arthur Knut Farestveit

that diverted any excess water. The grinding stones had been removed but the mill wheel was found with its axis *in situ*. The V-1477 tephra was in the turf that the mill was built of, meaning that the mill was constructed after 1477. Written sources clearly indicate that mill constructions in Iceland only started in the last two decades of the 18th century. Furthermore, the Ö-1875 tephra layer was found covering the collapsed turf walls, meaning that it had turned to ruin before 1875. It is therefore safe to assume that the mill was likely constructed and used between 1800 and 1875 (Traustadóttir et al., 2022, pp. 38–46). The only find found that is directly associated with the mill was a glazed redware jar found in many pieces. It is likely that the jar was used to transport grain to and from the mill and was forgotten or lost in the mill (Traustadóttir et al., 2022, p. 49).



Figure 10. Redware jar found inside the mill structure. (Traustadóttir et al., 2022, p. 48)

2.4.3 Trash and medieval buildings

Two medieval buildings were found under the hallway farm. One which had meter high, preserved, stacked, stone walls. Collapsed turf from the walls and roof was found inside the building. On top of the structure was a thick layer of the V-1477 tephra, meaning that the building is from before 1477. At the time of writing the function of the building is not clear. The building was used in two phases before 1477 so it is concluded that the building was in use in the 13-14th centuries. The function of the other medieval structure is also not clear but possibly an animal house built later. Preceding the two medieval buildings were vast layers of refuse, mostly compiled of peat ash and animal bones but contained some artefacts. The layers were found under the landslide from 1150 AD. The layers were anywhere between a



Figure 11. Medieval building. Organic layers within the medieval structure. The basement is in the top right corner of the figure, 2m scale. (Ragnheiður Traustadóttir et al. 2021.)

millimetre and three centimetres in thickness, except in one spot, an almond shaped dell lined with stones around. The dell was filled with peat ash and bones of domestic animals, birds, fish and whale. Artefacts such as a chess piece (*i. hnefi*) were also found in this pit. These refuse layers were dated to be approximately from 1000-1150 AD. (Traustadóttir et al., 2023).

2.4.5 A burial site from the Viking Age

Medieval layers consisting mostly of peat ash, bone and shells, were found out to be right on top of four graves from the Viking Age. The term *kuml* is used in Iceland for graves before Christianity from the Viking Age. All four graves had different characteristics and therefore each got a different nickname; Boat grave [1] (*i. bátskuml*), Male grave [2] (*i. mannskuml*), Horse grave [3] (*i. hestkuml*) and Female grave [4] (*i. kvenkuml*).

The “dell” filled with peatash and bone layers, turned out to be a boat grave which was labelled [1] and faced N-S. Finds such as a chess piece and a bone pin were found in the medieval layers above the grave and are most certainly from it. This means the grave was disturbed during the activity that lead to the accumulation of layers, moving the finds upwards. These disturbances could partly explain the poor preservation of organic materials in the grave. The grave contained a small, clinker-built boat, probably a “fourern”, a boat with room for four oars (Figure X). Wood preservation was almost none aside from the small wood around the clinker nails preserved by the corroding iron. On the north end of the grave a “shadow” where some of the boat’s planks had been, could be seen. GPS points were taken where clinker nails were found *in situ* so that the size and shape of the boat could be roughly estimated. On the south side laid a big stone slab and underneath it were horse teeth and an axe head. Bone preservation was also poor and the only bones recovered were the horse's teeth and a single piece of enamel of a human tooth. This grave was very rich in grave goods. Due to difficult conditions in the field, most of the finds were found when the soil from the grave was sieved. Grave goods from the boat burial were; a round silver brooch with a knotted decoration, silver ring, tongue-shaped Borre-style brooch, 10 strike-a-light stones of quartz, three silver threads, eight small pins, iron rod, iron axe with wood remains, knife, red sandstone chess piece, a bone pin, 20 beads made of glass, stone and rock crystal and many miscellaneous iron finds with unknown functions.



Figure 12. Brooch from grave [1]. Tongue-shaped, Borre-style brooch made of bronze after conservation. (Antikva, 2022)

Grave [2] contained a skeleton of a male individual, a horse skeleton and two buckles, likely part of riding equipment and/or the individual's clothes. The grave had been disturbed so only a small part of the male skeleton was left and around quarter of the horse. The only preserved human bones from the grave site are the skull with teeth, femur and two vertebrae. The individual's teeth are slanted inwards, meaning they were likely used as tools.



Figure 13. Drone photo of the Viking Age burial site. Antikva, 2021. Edited by Arthur Knut Farestveit

Horse grave [3] had an entire horse and dog skeleton preserved *in situ*. The southern half of the grave was disturbed by a utility pole sometime in the 20th century. Grave goods were; steatite mould, bone comb, a few clinker nails, two buckles - one of which is likely part of riding equipment, small remains of riding equipment and many small iron finds with an

unknown purpose. The grave's relation is not completely clear, whether the grave accommodates the boat grave [1] or had a person buried with grave goods in the southern end that was completely removed, perhaps when the utility pole was put there. Horses are a common grave good from the Viking period, recorded in about 40% of all *kuml* (Rúnar Leifsson, 2018, p. 284). Dogs are somewhat common, found in 32 instances. A horse and a dog together are also somewhat common, found in 19 out of the 32 graves (Rúnar Leifsson, 2018, p. 276). The dog's large size is rare, larger than the Icelandic sheepdog and may be a separate dog species and possibly represents a prized animal in its day. There are examples of a high-footed greyhound found in a *kuml* in Keldudalur valley (Guðný Zoëga, 2008, p. 10) and this might be a similar occurrence.

The Female grave [4] was completely undisturbed and *in situ*. Rocks were laid on top of the grave that closed it off and landslide [700] was on top of them. No bones were left but plenty of grave goods. Two bronze oval brooches, a circular brooch, an iron hook, whetstone, steatite (soapstone) stone with a hole, jasper strike-a-lights, a knife, round clasp, scissors wrapped in textile, 11 large beads made of glass and stone and a number of unidentifiable iron and bronze finds. The rarest and most interesting find of all is textile remains that the two brooches preserved. They are unique both in Iceland and the Nordic countries. Part of a coat is preserved and part of a dress.

2.4.6 Conclusion

The field season of 2021 was productive. Not only was the team able to complete its goal of excavating the hallway farm, mill and sheephead as planned but they also finished the excavation of vast and complex features that lay hidden underneath the farm and landslides, excavating through 1000 years of history. Finding the graves and everything else under the landslide from 1100 AD was completely unexpected. This is due in large part because the archaeologists thought they had reached sterile soil when they found another landslide. This excavation provides a unique cross-section of the life of Icelanders from the settlement to the modern era and their constant battle with the elements. The settlers who arrived on the shores of Seyðisfjörður in the 9th century were however equipped to deal with such a landscape. Avalanches and landslides were a fact of life, making the inhabitants aware of the risks and adapting to dealing with such events.

3. The public outreach of Icelandic archaeology: a short history and overview

3.1 A humble start

Icelandic television broadcasting started in 1966 by the state-run broadcasting network RÚV. A year later, with a TV station still in its infancy., the program *Munir og minjar* (eng. *Artifacts and remains*) premiered. The show was about the archaeological artefacts the National Museum kept and its first host was the director of the National Museum Kristján Eldjárn (“Munir Og Minjar,” 1967). The show proved to be quite popular, probably for being the first television show people had seen featuring archaeology and history. Another angle to look at this phenomenon is that people’s access to archaeology had never been so thorough and personal. A year later in 1968, Eldjárn became president, from 1968 until his retirement in 1980 (Ingvarsdóttir, 2016). It is commonly said that his television personality won him the presidency (Friðriksson, 2011) (Sævarsson, 2016).

3.1.1 Early examples or attempts of ‘public outreach’ and archaeology in the media

In 1956 Kristján Eldjárn publishes his doctoral thesis *Kuml og haugfé úr heiðnum sið á Íslandi* (eng. *Burials and grave goods in Viking-Age Iceland*). Despite being a doctoral thesis not specifically intended for the public and in essence a list of excavated or known burial sites accompanied by observations on typology, the book proved to be very successful. After having been almost unobtainable for decades it was re-published in 2000 and a third edition was again published in 2016 (Ingvarsdóttir, 2016). This doctoral thesis introduced to both scholars and the public the value of Icelandic archaeology and that there is more to the country’s history than was previously known from conventional sources (Magnússon, 1982, p. 12). Eldjárn was also the journal editor for The Icelandic Archaeology Society from 1945 – 1981. In addition to this Eldjárn published a few shorter books written with the public in mind and even specifies that academics should not utilize or quote these books for they are solely intended for the public’s education and entertainment (Magnússon, 1982, p. 12). Eldjárn can be considered the first Icelandic public communicator in archaeology and laid the foundation for future work.

In 1879 Hið íslenska fornleifafélag (e. *The Icelandic Archaeology Society*) was founded. It is one of Iceland’s oldest societies still active. Since 1880 the society has published a journal every year to this day about current archaeological research in Iceland. One goal of the

society was to inform the public about their country's archaeology and its historical value (*Um félagið*, n.d.). This effort has led to a huge bank of archaeological information produced over the last 143 years.

In 1885 The Icelandic Archaeology Society had 264 members (Thorsteinsson, 1885). In 1980 members of the society were 712 but in 1985 they had dropped to 626 (Baldvinsdóttir, 1986). The membership number was 348 members in 2017 and five years later, in 2022, the number of members dropped down to 293¹, a decrease of 6.32%. There is an obvious, steady decline since the last quarter of the 20th century. The 20th century was a time when belonging to a club or society was popular and people expressed their interests that way. The Archaeology Society attracted people from around the country and from all classes. In a membership register from 1960, where members names, location and occupation are stated, there are people who you would expect are attracted to this kind of society, like academics and teachers, but plenty of members are also lawyers, doctors, ambassadors, priests and policemen, carpenters, plumbers, farmers, artists and brewers. One of the members is even the second president of Iceland, Ásgeir Ásgeirsson. Almost all members are men but there are a few women members, so the club was not exclusively a male society. Only one woman in the 1960 register states a profession, a manageress. Although the society's members are from all walks of life the members who managed the society were professors, curators, judges and museum staff (Eldjárn, 1960, pp. 149–156). The society did public outreach, as they turned out archaeological material and shared conversations with the members of the public. While the society was open to anyone, they had to pay a yearly fee, so the information and participation was not free. However, once a member was in, they could join research excursions, show up to meetings for discussions and receive the annual yearbook. The Archaeology Society was a club where you must be a member to follow and engage. Over time the society slowly changed from a club of amateur archaeologists, interdisciplinary scholars and interested members of the public to a small editorial board that publishes the annual journal containing new research in archaeology read by professional archaeologists and other scholars.

3.2 Public archaeology projects in 21st century

Kristnihátíðarsjóður (*e. Christianization festival fund*) was a fund enacted by law from 2001 to 2005 that funded research relating to the history of Christianity in Iceland in celebration of the 1000 year anniversary of Christianity in Iceland, a big portion of it going to

¹ Margrét Valmundsdóttir, personal communications, January 9, 2023

archaeological research (Lög Um Kristnihátíðarsjóð Nr. 126b, 2001). This endeavour was a great boost for Icelandic archaeological research, as before 2001 only a fragment of the funds was given to archaeological research (“Styrkjum Úthlutað Úr Kristnihátíðarsjóði,” 2005). The archaeology department at the University of Iceland was founded in 2002, before that time people went abroad to study, mostly to Sweden or the UK (Vésteinsson, 2000). The founding of the department during a period of massive archaeological research kickstarted a new generation of Icelandic archaeologists. Even though public outreach was not specified as one of the goals of the funding, it was a by-product of more well-funded archaeological research. It can be inferred that this fund started a new era in archaeological research and set it on a course that is still felt today.

A significant incentive for the development and attention of archaeological public outreach was the introduction of a new master’s program in Applied Cultural Communications that the University of Iceland introduced (*i. Hagnýt menningarmiðlun*) (ACC for short) in 2006.² At the time the university was lacking a master’s program in archaeology, so many archaeology students did a masters in ACC after finishing their bachelor's. This resulted in a new generation of archaeologists who were more mindful of public outreach and conveying research results to the public.

From c. 2000 onwards we see an increasing number of initiatives with, for example, new museums and exhibitions on archaeology and archaeological finds, in addition to the already existing National Museum. One of them is the Settlement Museum in central Reykjavík. In 2001 the remains of a 10th-century long house (*i. skáli*) were found during construction work. After the archaeological excavation, it was decided to preserve the long house, made of turf and stone, *in situ* and build a museum around it (*The Settlement Exhibition - Step into the Viking Age*, n.d.). The museum hosts a Facebook page³ and an Instagram page⁴. On their Facebook and Instagram pages, they post more than just museum content but also about archaeological finds from the same time period and about the history of Reykjavík.

Stöng in Þjórsárdal valley is a longhouse abandoned in the early 12th century and excavated in 1939. Later a shelter was built over the remains so people can now visit the archaeological remains. In addition, a reconstruction of the farm and church was constructed based on the excavation results. The whole echoes the Lofotr museum in northern Norway on a smaller

² Anita Sauckel, personal communication, April 4, 2023.

³ <https://www.facebook.com/TheSettlementExhibition>

⁴ <https://www.instagram.com/thesettlementexhibition/>

scale where visitors can see the remains as archaeologists found them and then visit the reconstruction and ‘walk into the past’⁵.

The Eiríksstaðir farmstead, thought to perhaps have been the house of Erik the Red, is a longhouse reconstructed based on the findings of an excavation done at Eiríksstaðir in 1998 that strongly resembles the museum at Stöng. This was a locally initiated project whereby the long house is built only using methods and materials known in the Viking Age. Volunteers guide small groups of visitors, providing them with an interactive experience. Facebook and Instagram are used to reach out to the public (*Eiríksstaðir*, 2022),

At the time of writing, a new Viking-Age replica long house and museum is being built in Súgandafjörður in the Westfjords of Iceland. The replica is built by volunteers and it mimics a long house recently excavated at Grelutóttir in Arnarfjörður. The idea is to hold storytelling events at the longhouse, much like people imagine it was done in the Viking Age (Eðvarðsson & Kuhlman, 2020). The starting points of the project are sheer interest in the past as well as to promote archaeo-tourism.

Another view of an excavated long house comes from Hofstaðir in Garðabær municipality, also in the capital area. After the excavation was completed a reconstruction of the Viking Age long house was made so people could (re)visit the site. It is not a full size reconstruction but instead low walls were constructed on top of the excavated walls to show the shape of the house including information boards and a touchscreen (Guðmundsdóttir, 2011, p. 7). Hofstaðir is thus a small heritage park that is free to enter. This was and is a new initiative in Iceland.

The exhibition got a reward in 2004 for its use of innovative digital tools to bring archaeological information to the public (*Minjagarður Að Hofsstöðum*, n.d.). A similar exhibit is at Skriðuklaustur Museum in Eastern Iceland where the remains of an excavated monastery are portrayed this way with calf-high reconstructed walls on top of the excavated foundation, where visitors can freely walk through the different rooms of the monastery. The monastery is next to a steep hill where an observation deck with an information board and maps has been placed that informs the viewer about the excavation. The excavation is also part of a permanent exhibit at the museum where museum guests both see a regular exhibit

⁵ <https://www.thjodveldisbaer.is/is> <https://icelandthebeautiful.com/stong-i-thjorsardal/> date: 02/06/2023

with information boards and artifacts as well as a Virtual Reality experience. The museums' outreach includes Facebook and Instagram pages.⁶

Geirsstaðir church in Hróarstunga, Eastern Iceland, is a small church site from the Viking Age excavated in 1997. The site is interesting as it could represent a first-generation Christian church (Kristjánsdóttir, 1997). A reconstruction of it was built in 2001 (Ragnarsdóttir, n.d.) and it is open to visitors. The site is rural and out of the way, almost a hidden gem and could be interpreted as a heritage pit-stop as one drives through the countryside. No sort of outreach is done in relation to this reconstruction. Six out of seven of these examples involve some kind of reconstruction and five of all seven do some kind of public outreach.

3.3 The use of websites for public outreach in Icelandic Archaeology

3.3.1 The earliest websites

Two websites related to an archaeological excavation were made in the early 2010s with the intent of reaching out to the public. Those were The Archaeology At Kolkuós (*i. Fornleifar við Kolkuós*) and The Hólar Project (*i. Hólarannsóknin*). The two websites were part of the Hólar University website (Dal, 2010), (Guðmundsdóttir, 2011). The two projects were part of a big research project, the Hólar Project (*i. Hólarannsóknin*) that excavated sites connected with the Hólar bishopric in northern Iceland. The two websites were both master's projects in ACC at the University of Iceland.

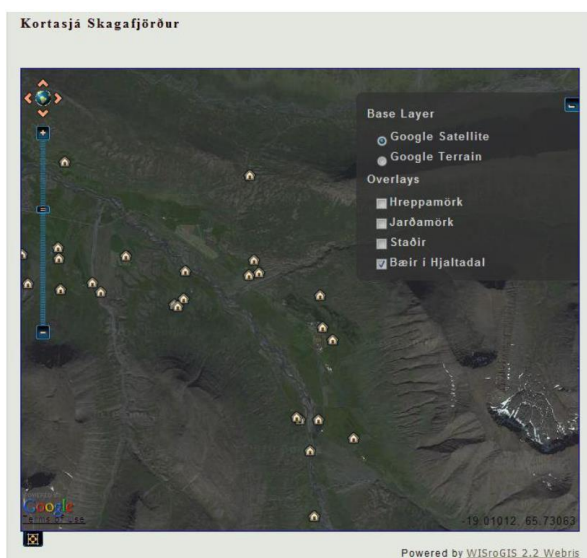


Figure 14. Screenshot of the Hjaltadalur valley interactive map. The map was an addition to the Hólar outreach website. (Valmundsdóttir, 2011, p.24)

⁶ <https://www.facebook.com/Skriduklaustur> <https://www.instagram.com/skriduklaustur/> date: 02/06/2023.

The Hólar Project started in 2002 when the project received a grant from the Icelandic Millennium Fund (*i. Kristnihátíðarsjóður*) to excavate the Hólar bishopric in Hjaltadalur, northern Iceland. As the project progressed more sites were excavated that related to Hólar, for example, the medieval trading port of Kolkuós and an early Christian graveyard in Keldudal (Guðmundsdóttir, 2011, p. 5). The Hólar Project made a website in 2003 that was updated until 2008. The number of visits to the site indicated that it indeed worked as an outreach tool, so the team decided to save the material, take the website down and make a new and improved website with a new design and build upon the experience gathered from the old one. In 2010 a website for the Kolkuós site was made (www.holar.is/holarannsoknin/kolkuos) and in the following year one for the Hólar bishopric site (www.holar.is/holarannsoknin). In 2011 an interactive map showing the archaeology of Hjaltadalur valley, also an MA project in ACC, was added to the site and was the first interactive heritage map available to the public (Valmundsdóttir, 2011, p. 19).

Archaeological outreach such as this – including using websites - had never really been attempted before. When the websites launched in 2010-2011 there were no Icelandic websites about archaeology intended for the public, only websites related to archaeological companies, societies and departments (Guðmundsdóttir, 2011, p. 10). The Hólar Project also hosted a Facebook group since April 22, 2009, and it gained more than 1000 followers, staying mostly active between 2009-2014. The last time the profile uploaded original content was in July 2020 (Traustadóttir, 2009). Unfortunately, the Hólar websites do not exist anymore and the information that was once there is only present in reports and articles.

3.3.2 The current use of dedicated websites

Currently, dedicated websites are used to a very limited extent. Most of the older websites have been taken down or not been updated so the site is unable to load. There are some older websites still up that have not been updated in a number of years like; minjarihaettu.wordpress.com, unnurmagg.wordpress.com and fornleifafraediaislandi.wordpress.com. The obvious cause for this trend was the popularity of social media. Instead of designing, maintaining and updating a dedicated website for a project, excavation managers turned to social media. Social media is free to use and that is where most of the „public“ is. However, there have been a few new projects in making dedicated websites for archaeology, notably two. Recently a website was made to share the results of an excavation at the Skálholt bishopry in southern Iceland that took place in 2002-2007 (skalholt.fornleif.is). The website at the time of writing is a work in progress so no

conclusive criticisms can be given. Another recent website, also a part of an MA project, is the Fornleifauppgröftur (e. *Archaeological Excavations Project*) at fornleifauppgroftur.is (Jónsdóttir, 2020). The website revolves around an interactive map that shows the user where and when an archaeological excavation in Iceland took place. Due to the sheer amount of excavations that have taken place in the last century and a half, the project focused on a single county in western Iceland so the website is more a proof-of-concept website than a fully realised project. It is simple, easy to use and could well be expanded.

3.3.3 The current use of social media

In 2023 there are six companies and/or institutions that do archaeological research that includes excavation in Iceland. All six have a website where they present their company/institute including the results of their archaeological (field)work. Besides that, they also use social media. Facebook is the most popular medium used as all six have a Facebook page. Four of the six also use Instagram, but in all cases they have more followers on Facebook.

Table 1

Institution	Website	Facebook	Instagram
Antikva	antikva.is	www.facebook.com/profile.php?id=100063539558647 Followers: 738	www.instagram.com/antikvaehf/ Followers: 233
Fornleifafræði stofan (e. The Archaeological Office)	fornstofan.is	--	
Fornleifastofnun Íslands (e. The Archaeological Institution of Iceland)	fornleif.is	www.facebook.com/fornleifastofnun Followers: 2,900	https://www.instagram.com/fornleifastofnun/ Followers: 679
Byggðasafn Skagfirðinga	glaumbaer.is	www.facebook.com/byggdasafnaskagfirdi	www.instagram.com/byggdasafnaskagfirdinga/

(e. Skagafjörður local museum)		nga Followers: 1,800	Followers: 694
VG – Fornleifarannsóknir (e. VG-Archaeological Research)	vgfornleifar.is/	www.facebook.com/fornleifar Followers: 562	
Náttúrustofa Vestfjarða (NAVE)	nave.is	www.facebook.com/profile.php?id=100057592983893 Followers: 760	www.instagram.com/natturustofa_vestfjarda/ Followers: 136

Both Antikva and Fornleifastofnun Íslands (*e. The Archaeological Institution of Iceland*) or AII for short, have Facebook pages for individual research and a main page. Antikva's main page has 738 followers and its research page Fjörður – Seyðisfjörður fornleifar (<https://www.facebook.com/Antikvaehf>) has 1,300 followers or more than 40% more followers than the main institution page. AII's main Facebook page has 2,900 followers and has dedicated pages for each of their bigger projects. AII's research projects with dedicated pages include the cave excavation at Oddi (<https://www.facebook.com/oddarannsoknin>) with 671 followers, the long house excavation in Ólafsdalur valley (<https://www.facebook.com/fornleifastofnunislands>) with 1,400 followers and their heritage rescue project at Strandir beaches (<https://www.facebook.com/FornarStrandir>) with 1,200 followers. Náttúrustofa Vestfjarða (*e. Ecology Institution of the Westfjords*) has an archaeology department that is researching a Viking Age settlement site in Arnarfjörður and they have a dedicated Facebook page (<https://www.facebook.com/profile.php?id=100063045411021>) with 760 followers but their research page Arnarfjörður á miðöldum Fornleifarannsókn (*e. Archaeology of the Medieval Period of Arnarfjordur*) (<https://www.facebook.com/profile.php?id=100063045411021>) has 943 followers. The sample size here is small but there might be an overall trend where the dedicated sites amass more following than the institutions. This is not the case with The AII where they have more than twice or more the amount of followers on their main page. The cause might be that because they have many different projects with different outreach plans

and efforts might be spread thin. Updates from their projects are also shared on their main page so perhaps their followers are fine with just following the main page for the highlights of their research. In the four cases where the institutions also use Instagram as an outreach tool the number of followers is proportionally much lower than their Facebook followers, in all cases by more than half. The other institutions; The Archaeological Office, VG-Archaeological Research and Byggðasafn Skagfirðinga museum do not have dedicated Facebook or Instagram pages for their excavations. The websites the institutions operate are not dedicated to outreach to the public except in a very limited way and their function is more to provide information about the institution and how to contact them. The number of followers is not everything when it comes to outreach online, but it is the only metric available to someone without access to these profiles. Different metrics will be discussed in chapter 4.

3.3.4 The use of online video material in Icelandic archaeology

To communicate archaeology properly emphasis needs to be placed on its visuality. The discipline of archaeology revolves around tangible things that can be seen, touched and experienced one way or another. Therefore, the communication of archaeological material is ideal through images and video. To get a proper gauge of the state of archaeological public outreach using video media online, a small experiment was done on the video hosting site YouTube and the short video-sharing social media TikTok, by opening YouTube and searching eight keywords in Icelandic: *'fornleifafræði'* *'fornleifar'* *'minjar'* *'víkingar'* *'víkingaöld'* *'uppgröftur'* *'fornleifafræðingur'* *'miðaldir'*. The same was done in English with the keywords: *'Icelandic archaeology'* *'archaeology of Iceland'* *'viking age Iceland'* *'excavation Iceland'* *'Icelandic cultural heritage'* *'medieval Iceland'* *'Icelandic history'* *'Icelandic archaeologist'*

On YouTube, the Icelandic keywords that yielded the best quality videos were *'fornleifar'*, *'víkingar'* and *'víkingaöld'*. *'Fornleifar'* shows news reports of excavations, documentary-style videos made by archaeology enthusiasts and informative animated videos about the settlement of Iceland in English. *'Vikingar'* gave general results and showed all kinds of videos ranging from comedy sketches and sports to informative videos about the settlement of Iceland. There were also videos from an Icelandic museum where aspects of Viking-Age culture were discussed. The keyword *'Vikingaöld'* showed informative documentaries about the Viking Age in general and the settlement of Iceland. The other keywords are perhaps too specific. *'Fornleifafræðingur'* turned up one interview with an Icelandic archaeologist but the

rest of the suggestions were largely pseudoscientific videos about ancient Egypt, the same happened when searching for *'uppgröftur'*.

Keywords in English gave better results in terms of the quality of the information for the viewer. *'Icelandic archaeology'*, *'Archaeology of Iceland'* and *'Viking Age Iceland'* gave the same results, with a few interviews with Icelandic archaeologists, amateur documentaries about excavations, and videos with facts about Vikings, the sagas and the settlement of Iceland. These keywords also provide videos with general facts about Iceland. More specific searches like *'Medieval Iceland'* or *'Icelandic cultural heritage'* provide very little, mainly “medieval” music and videos discussing medieval times in general terms. These searches were replicated in a different computer with another IP address, and it gave almost the same results. Surprisingly during this experiment, when *'Viking Age Iceland'* was searched a video made by an archaeology enthusiast about the Viking-Age graves found at Fjordur turned up! This video was unknown to the team, and it is apparent that the information and pictures of the site and finds are all directly taken from the project's Facebook and Instagram site and likely from a Norwegian article written by NIKU about the finds. This is an example of a trickledown effect of public outreach on the internet where the audience receives the information, repackages it, and shares it further. The video only has about 1,800 views at the time of writing.

The same experiment using the same keywords was done on TikTok and gave a very different result. The Icelandic keywords yielded almost nothing. *'Fornleifafræði'* did turn up one video about the 'Mountain Lady' of Seyðisfjörður and that was the only purely archaeological video found using the Icelandic search terms. Interestingly the *'Fornleifafræðingur'* search did not turn up a single video regarding archaeologists but many other *'fræðingar'* or professions, meaning that there is culture for displaying aspects of your profession and answering questions by other users. 'Icelandic archaeology' and 'Archaeology of Iceland' again had the same results, three videos, two of them about the Icelandic bone assemblage in New York City and one a tourist video of the reconstruction of Geirsstaðakirkja church. Searching for 'Viking Age Iceland' turned up diverse results but none about Viking Age material from Iceland. The best search term was 'Medieval Iceland' that yielded a diverse mix of videos ranging from tourist videos to medieval manuscripts, the sagas, crafting, folk stories, medieval songs and even study advice. Yet none about archaeology.

3.4 Conclusion

The public outreach of archaeology in Iceland has for the most part relied on traditional media, television, newspaper articles, periodicals, books and museums. In the first decade of the 21st century there was interest in reaching out to the public via the Internet and outreach efforts were made in the form of websites. In the second decade the interest in maintaining dedicated websites for archaeological outreach lessens significantly with the popularity of social media. Icelandic archaeologists are mostly utilizing Facebook for public outreach, Instagram has also seen some use but has not amassed the same following that Facebook pages have. There is barely any video material available about Icelandic archaeology on sites and/or apps dedicated to videos like YouTube or TikTok and it does not seem like any real effort to utilize online video as an outreach tool has taken place. The discipline of archaeology in Iceland is small but has gone through significant growth since the turn of the 21st century. On social media there seems to be a trend where a dedicated social media page is made for an archaeological excavation and/or project, this means that efforts are spread out and sharing of content is usually confined to the excavation season. Interestingly, the dedicated excavation pages gather more followers than the institutions' main page. In disseminating knowledge about archaeology and creating more public awareness of archaeology much more could be achieved with online public outreach strategies involving websites and social media.

4 Websites and social media as outreach tools

4.1 Introduction

Do websites still have a place as outreach tools and if so, how should websites be used to reach out to the public? What features make a good website? How could data from an archaeological site like Fjörður be translated into a narrative that the public finds interesting? This chapter will address the sustainability of websites, outline their design principles and discuss their interplay with social media.

4.2 The fate of GeoCities

In 2014 Matt Law and Colleen Morgan (2014) located 88 archaeology-related websites that were hosted by GeoCities.⁷ They then sent a short survey to the webmasters of 58 pages that had contact details, only nine completed the survey. Seven out of nine respondents commented on how useful the internet is at spreading archaeological information to both other academics and the public. Two respondents thought a database was needed to store information from discontinued websites (Law & Morgan, 2014, pp. 3–4). Websites with a large budget will eventually be affected by ending budgets, changes in technology and changing priorities in archaeology. This also relates to 3D models, databases and anything else that needs maintenance to avoid obsolescence. (Law & Morgan, 2014, pp. 1–2). The fate of archaeological webpages hosted at GeoCities is evidence of the risks of hosting archaeological data online. Communicators should therefore be cautious about investing in an archaeological outreach project online.

4.3 The potential of websites as outreach tools

Websites dedicated to a single topic or project reduces them to isolated units, a better way to preserve archaeological data is to disperse it as wide as possible. Opting to use social media exclusively may not be the best solution, entrusting private companies like Facebook and Twitter to host vital information is risky (Law & Morgan, 2014, p. 5). The lesson to learn from e.g. the demise of GeoCities is to host content in different places and not to depend on companies hosting it indefinitely and look for alternative creative spaces to perform outreach online. Law and Morgan suggest that the most effective way to share information is by updating, editing and adding information to Wikipedia about archaeological sites, periods and

⁷ GeoCities was home to countless low-cost websites including some hundreds of archaeological public outreach sites. GeoCities was a webpage hosting space, founded in 1996, where users could easily make their own webpage without knowledge of HTML or any other programming language. In 2009 Yahoo! announced the permanent shutdown of their GeoCities webpages.

artifacts which might be a greater contribution to the knowledge of the past than an isolated website (Law & Morgan, 2014, pp. 5–6). Law and Morgan argue for using Wikipedia as an outreach tool because almost everyone uses Wikipedia to access general information on a topic. However, that means trusting the foundation not to take down the page, storing information in a single space and other users can change information on “your” Wikipedia page.

People today use the internet in a different way than they did 5, 10 or 15 years ago. With the overtake of social media, the question worth asking is: are independent, dedicated websites meant for archaeological outreach still relevant? Yes, they are, but we must think about websites differently than we used to. Websites should not be a one-stop place where everything about the excavation, research or topic is hosted. Rather, they should be considered as a tool in an interconnected, outreach toolbox. I suggest these rules for creating an affective and appealing website.

1. A narrative or a story is very important. The narrative needs meaning. Make the narrative relate to the user.
2. Use attractive, appealing and descriptive images, videos or other visuals that ‘tell’ a narrative. The quality of images and video is important.
3. Texts need to be short and to the point. Assume that the visitor will not read everything and enable them to scan the site with ease. Use bullet points and lists whenever possible. Make intriguing, gripping titles. Make text follow an image or make text appear when the mouse hovers over an image.
4. Design, graphics and overall aesthetic is important. Simplicity is key and the design should enhance the content, not divert from it.
5. Videos need to be short and to the point. If possible, a little dramatic. Longer, more in-depth videos should be linked.
6. Encourage the user to explore. Make things clickable.
7. Connect the website to social media accounts, blogs or other websites.
8. Be creative and surprise the user.

4.3.1 Examples from different archaeology websites

Skálholt episcopal see excavation – skalholt.fornleif.is.

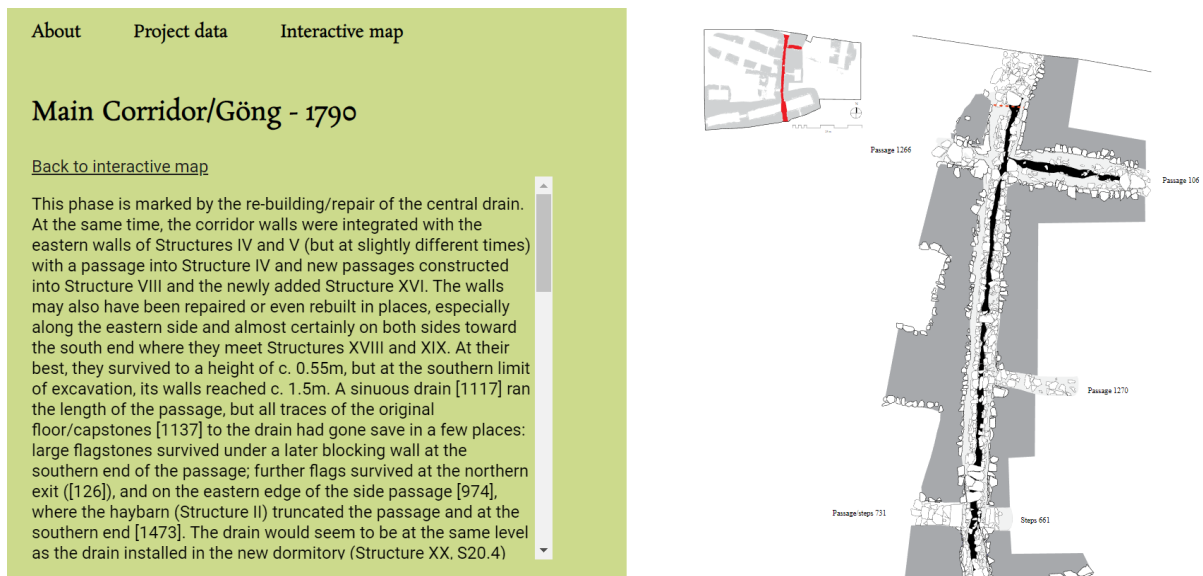


Figure 15. Screenshot of the Skálholt excavation outreach website. To the left is text explaining the structure. To the right is the interactive map (skalholt.fornleif.is, accessed 15/06/2023).

This is perhaps the only Icelandic website at the time of writing that is dedicated to a single research project at the episcopal see of Skálholt in southern Iceland. The website is likely still under construction so many aspects could change, nonetheless it provides good examples for the purpose of this chapter. It is not immediately clear what the goal of the site is, if it is outreach or something else. The website's strong factors are the appealing graphics and the interactive map that the user can play around with. Its weak factors are that the user needs to know a great deal about the excavation to be able to understand the content of the site. The user is also hit with a “wall of text” and they are not able to scan the site effectively. The website is not connected to any social media.

Secrets of the Ice – secretsoftheice.com



Figure 15. Homepage of Secrets of the Ice research. A video of mountain areas and glaciers rolls when a visitor enters the site and evokes interest in the project (<https://secretsoftheice.com/>).

Secrets of the Ice is a glacial rescue archaeology project in Norway. The site's strong aspects are appealing visuals and gripping titles that grab the user's attention and evoke their curiosity. The search bar is probably an unnecessary feature.

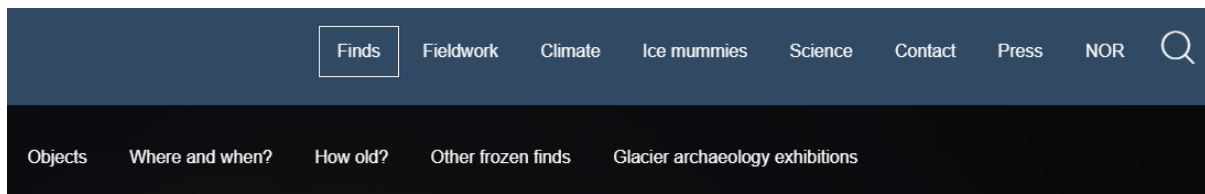


Figure 16. Secrets of the Ice toolbar (<https://secretsoftheice.com/>).

Navigating the site with the toolbar and a drop-down menu is easy to use and understand. The website has accessible articles about the project and its finds but also links to scientific articles on the subject. The home page feels a little chaotic on a desktop when the user scrolls down but it functions much better on a mobile. The whole website is a lot more enjoyable on a mobile which is likely the purpose. Secrets of the Ice are very active on social media and show a nice coherence between the website and social media.

Norwegian Institute for Cultural Heritage Research – niku.no

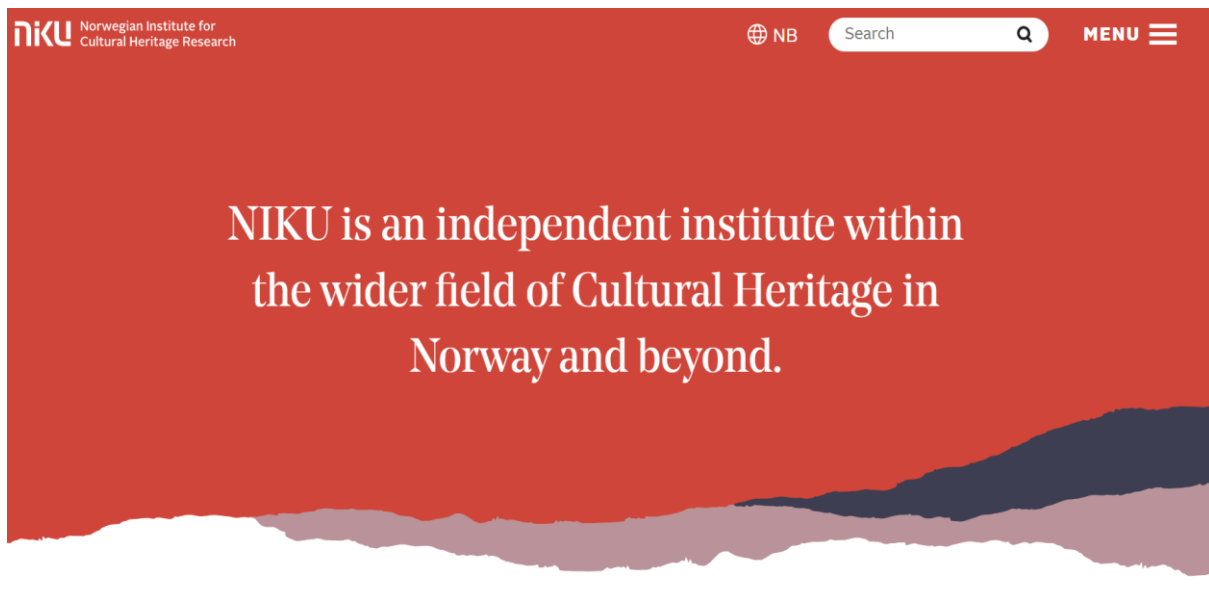


Figure 17. NIKU's homepage. Short text provides the visitor immediately with context and the design is simple but striking (niku.no, Accessed 14/06/2023).

The website from the Norwegian Institute for Cultural Heritage Research (NIKU) is aesthetically pleasing and it is clear a lot of thought was put into its design. Its design enables the website to function both as a corporate website and an outreach website.

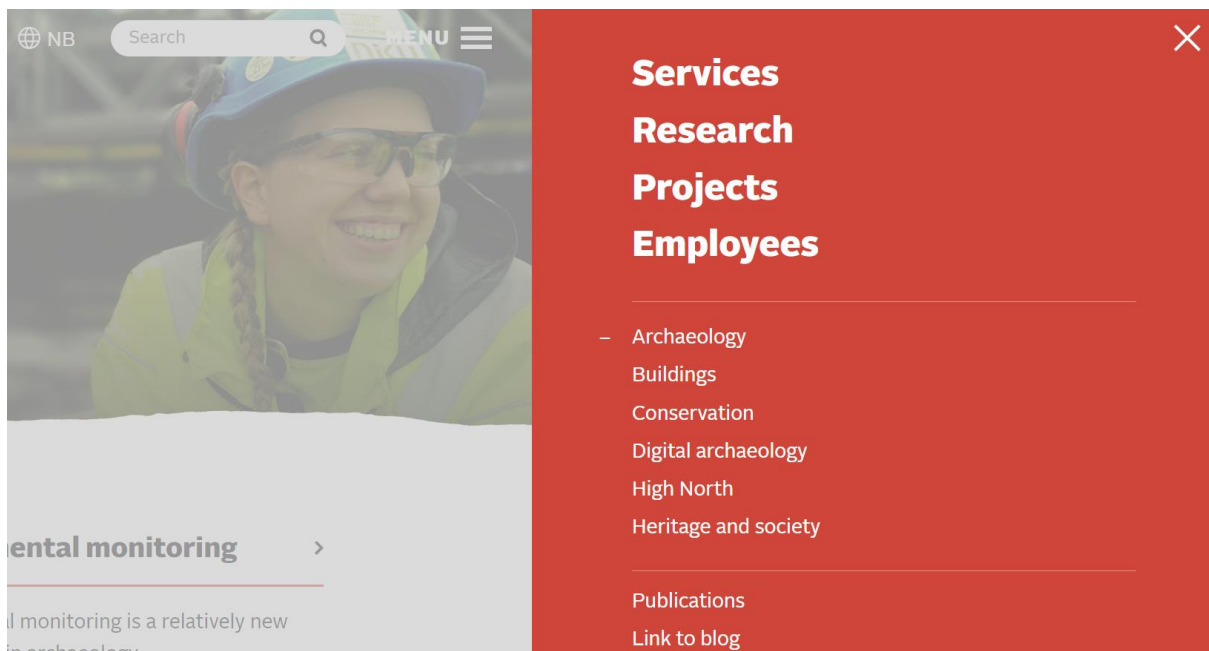


Figure 18. NIKU's menu. Higherarchy is important in webdesign and NIKU does it well, as a commercial company it's services and previous research is at the top and in bold. (<https://www.niku.no/en/tjenester/arkeologi/>).

The menu has a clear hierarchy from top to bottom and it is easy for the user to navigate and find what they are looking for. NIKU is a commercial company so their services, research

projects, and employees are the most important for a customer to know. The search bar at the top is probably unnecessary as navigating the website is easy. The institution seems to have a clear outreach strategy on social media and they are very active.

Knowe of Swandro – swandro.co.uk

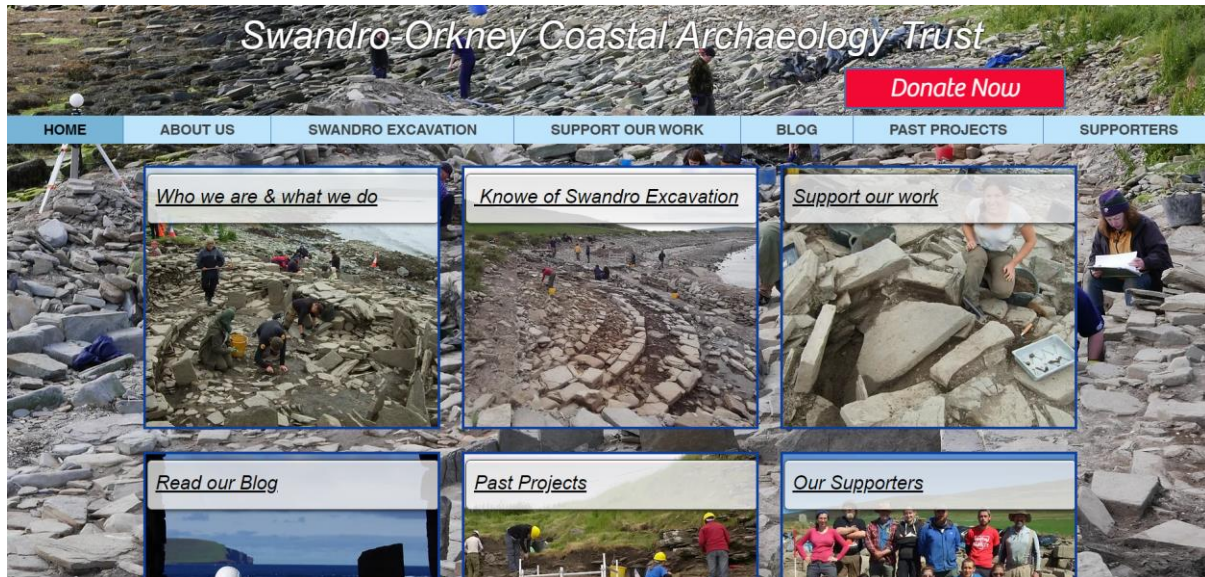


Figure 19. Knowe of Swandro homepage. The page is navigated both via toolbar and tiles (<https://www.swandro.co.uk/>).

The excavation at the Knowe of Swandro in the Orkney islands is a coastal rescue archaeology project aimed at recording a large Bronze and Iron age site before the ocean washes it away. The website's many pictures in the back and foreground are distracting to the user and it needs simplification. The toolbar and the tiles display the same information, like the 'Support our work' button in the toolbar and the tile with the same name.

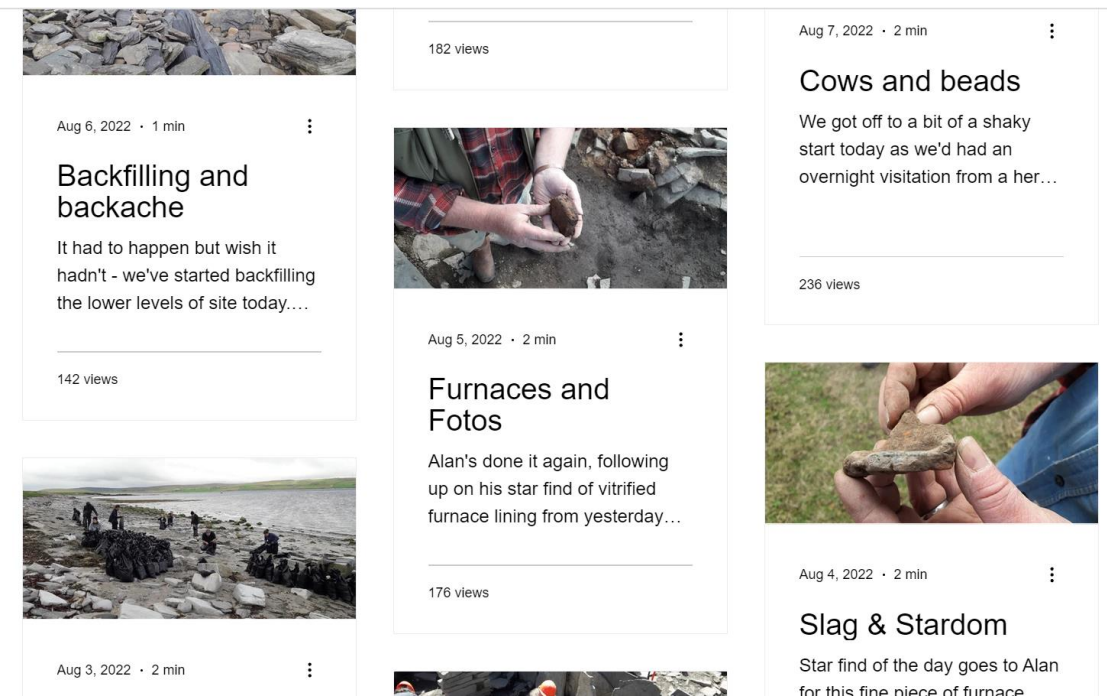


Figure 20. The site diary of the website (<https://www.swandro.co.uk/blog>, accessed 14/06/2023).

The website’s strong aspect is its blog which is cleaner and more modern. The view counter on the blog posts is a nice addition. The project is a scientific/rescue excavation that relies on funding from charities, donations and volunteer work which likely impacts the project’s ability to do outreach.

Fornleifastofnun Íslands – fornleif.is



Figure 21. The Archaeological Institution of Iceland homepage. (<https://fornleif.is/> accessed 14/06/2023)

The Archaeological Institution of Iceland is a private research institution based in Reykjavik, Iceland (see chapter 3.3.3). They have a modern, visually appealing home page with rolling

pictures showing some of the projects they have done. All navigation is done on the homepage where the buttons do not open a new page but automatically scroll down to the desired part of the page. The goal is probably to give the page a sleek experience but, in this instance, it is a little frustrating. The news ('fréttir' button) shows updates from their Facebook page and clicking on it brings the user there.



Figure 22. Publications panel on *fornleif.is*. Left of figure is a button for published books, to the middle the institutions journal and to the right are archaeological reports accessible. (*fornleif.is*)

The website's strong aspect is the appealing design, connecting the website to social media and a webstore where books and journals can be ordered. Its weak aspect is its functionality and it would benefit from simplification. Simplifying the banner and the buttons around it would increase the desktop functionality and visuality on mobile. Like Norway's Institute for Cultural Heritage Research, this is a corporate website, but the outreach aspect is very minimal.

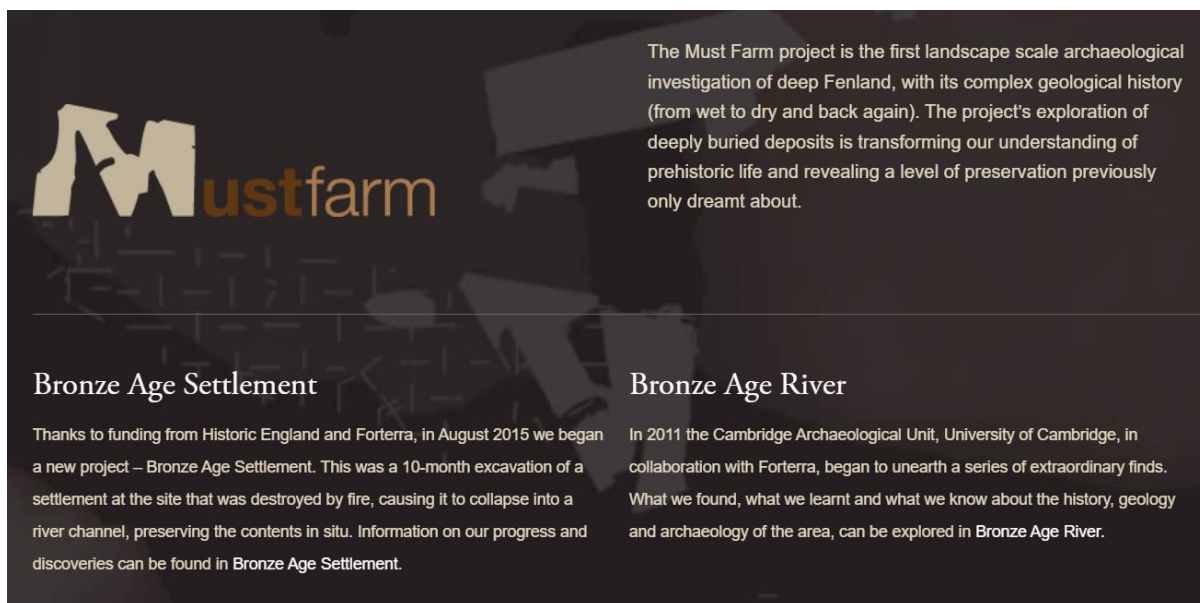


Figure 23. Introduction page on mustfarm.com. By clicking on "Bronze Age Settlement" the visitor enters the homepage for the 2016 excavation, to the right an excavation done in 2011 at Must Farm ().

The Must Farm project in eastern England was a salvage excavation of a Bronze Age settlement site (see chapter 4.4.2). When the user first encounters mustfarm.com all he sees is this wall of text on a dull, brown background. This is some sort of introduction page, the user must figure out that the titles in white are buttons that take them to the real home page.

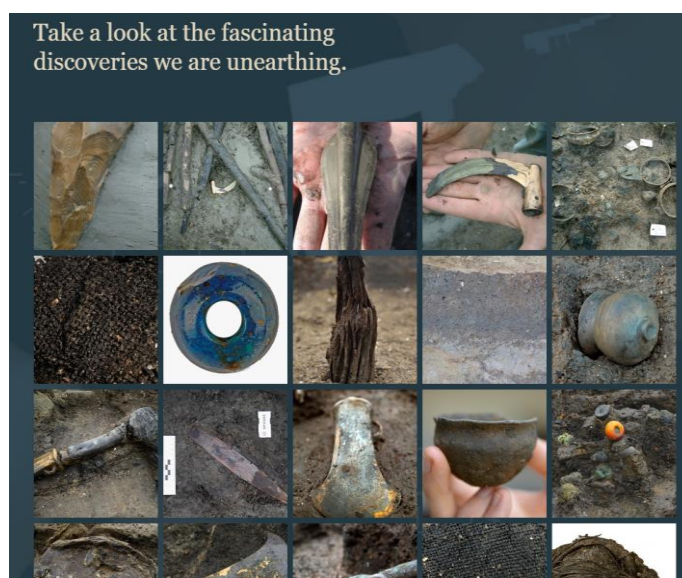


Figure 24. Gallery section of mustfarm.com. The gallery shows key finds from the Must Farm Excavation. Each picture can be clicked to show more information about the artefact ().

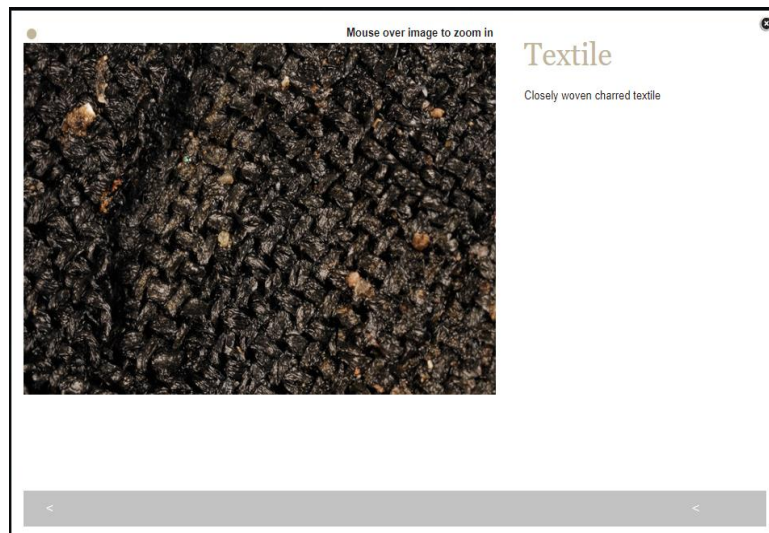


Figure 25. An artefact selected in the gallery. A preserved piece of textile from Must Farm, the visitor can zoom in on the artefact by hovering the mouse ().

The site is mostly home to the projects Dig-Diaries and Post-Ex Diaries which update followers on the progress of the project. The site does host an impressive gallery of artefacts in a high resolution which can be zoomed in on. The site's strong aspects are its diaries, photo galleries and many photos of the site which follow texts. Its weak aspects are the confusing navigation and its offish design. The texts could also be broken up into segments. However, as will be discussed in chapter 4.4.2 the outreach strategy using the website with social media was a success.



Figure 26. Digventures homepage. A simple design with three important buttons and a toolbar at the top. A video showing some of the work DigVentures does plays when the page is opened ().

DigVentures is a crowdfunded archaeology research, education and outreach company. The site is well thought out and designed and lets the user discover different aspects of the site. When the home page opens the user sees a rolling video showcasing the many different projects DigVentures is involved in as well as three main buttons. If you are on the website you are likely interested in education, volunteering or in need of consultancy so this navigation makes it easy. There are many positive aspects about this site and that is likely a result of a lot of attention and resources put into it. There are a lot of videos, a 3D museum, an excavation blog, live updates from the field and they produce their own “television show”. They are very active on different social media platforms that promote the site.

4.4 Playing with data: Examples from Facebook and Instagram of effective applications of social media campaigns

4.4.1 Instagram

Instagram is a free, social media application founded in 2010. It was acquired by Facebook in 2012 for 1 billion USD when it had 30 million users and today has over 1 billion active users (Caspari, 2022, p. 2). Gino Caspari, an archaeologist at the University of Sydney, Australia conducted a scientific experiment using Instagram. In September 2018 he created his Instagram account @ginocaspari and made daily posts about archaeological research, news,

stories and personal comments. The goal of the account was to reach a diverse audience and make laypeople (more) curious about archaeology. The goal was not an all-around archaeological education but a regular supply of archaeological information and insight into the field (Caspari, 2022, p. 1). Instagram was a good venue for an experiment of this kind since Instagram can provide statistics that show gender distribution, geographic information, accounts reached, performance of individual posts and the overall growth of the account (Caspari, 2022, pp. 2–3).

The @ginocaspari account has grown to one of the largest archaeological communication accounts on Instagram for the past few years. In October 2019 14,555 accounts followed @ginocaspari, and in August 2021 a final survey collected available data of 138,732 accounts following @ginocaspari. Most followers were men but the age distribution of the sexes was the same (see Fig.x). The number of followers an account has is not everything, according to statistics from Instagram the @ginocaspari account reaches around 1.3 to 2.1 million accounts every month. Retention of his followers is also good, out of the original 14,555 followers in October 2019, 84,42% were still following the account a year and a half later. Caspari mentions that engagement rates tend to be much higher for smaller accounts and they drop the larger the account grows. The engagement rate for @ginocaspari in 2021 ranges from 3.3% to 6.9% (Caspari, 2022, p. 4).

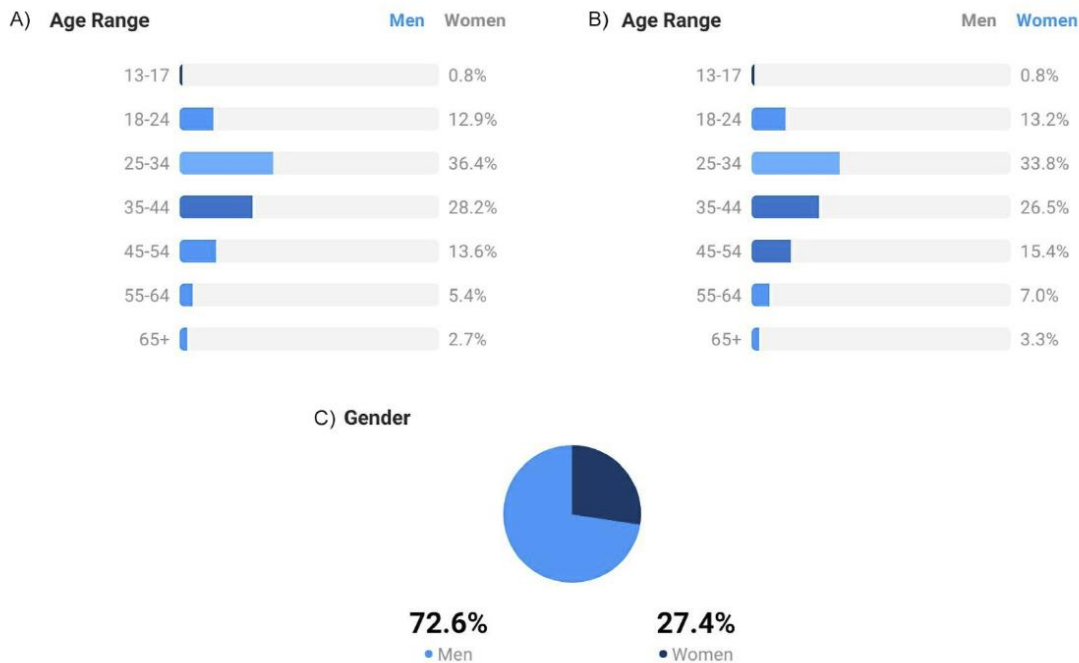


Figure 27. Follower demographics. A) Age range for men B) Age range for women C) Male and female percentage (Caspari, 2022, p.5).

Instagram is limited in what kind of content can be posted on the app, for example, a single post cannot contain more than 2,200 characters and no more than ten photos or videos. But it is the long accessibility of content that makes this platform important. Caspari's account retained 84.42% of its followers between 2019 and 2021. Such a high retention rate means that a user who follows a few archaeological accounts might be exposed to archaeological content every day (Caspari, 2022, p. 5).

How do you post to Instagram and how do you gain and retain followers? There are a few 'rules':

1. Images and videos need to grab the attention of the user and stop their scrolling. Only then the user will read and takes the information.
2. The quality of the image or video, clarity and legibility of visuals are very important in attracting and holding attention.
3. The image needs to be related to the overall theme of the account and the caption following the image or video

In archaeology images are extremely important if the audience is supposed to follow what is written in the caption or on the screen in a video. On Instagram there is a constant competition for the public's attention, so continuing regular (inter)activity is important to

keep engagement. The more a user engages with an account, e.g. by ‘liking’ posts, the more likely they are to see more of their content. A user that follows 500 accounts will not have the time to view everything that is posted, accounts that post weekly or monthly have little chance of reaching out to a broad(er) audience. Accounts that grow quickly post at least once a day. Spreading the content over different platforms is also challenging and most activity on social media posts happens within the first few hours. After 24 hours posts are not generating interactions anymore and are not shown to users in their feeds. There is a personal aspect as well leading to the fact that the engagement rates of official accounts of institutions and/or companies – with a larger budget and more human resources - are usually much lower than accounts from individuals. The audience is not solitarily interested in official narratives and new findings but particularly in the individual experience of the archaeologist including personal emotions and (exciting) opinions (Caspari, 2022, p. 6).

Communicating on social media is quite contrary to the style that academics usually use in their public outreach. An individual researcher can build trust with the audience with authenticity and a nuanced notion of the archaeological profession (Caspari, 2022, p. 7). Archaeologists still doubting the benefits of social media should take into account that by using social media to reach the public they will have greater control over the information than if the message comes from a (journalistic) third party (Caspari, 2022, p. 6)

4.4.2 Facebook

Facebook is a social networking site founded in 2004 by Harvard student Mark Zuckerberg. Facebook is the largest social network in the world with around three billion users, about half of whom use the site daily (Hall, 2023). With so many daily users Facebook is worth considering as an outreach platform.

A good example of the use of Facebook (and other social media) is the Must Farm project in England. The Must Farm Settlement project conducted an excavation of a quarry in Fenland, east of Peterborough in central east England. In 2006 a small-scale archaeological investigation discovered the settlement site and its well-preserved artifacts and features. The site was to remain protected *in situ* but an additional investigation a few years later revealed that the conditions of the soil were degrading and the archaeology would soon deteriorate if nothing was done (Knight et al., 2019, pp. 647–649). In a single year, excavating year-round between August 2015 and August 2016 the settlement of Must Farm was excavated fully. The team decided to run a public outreach campaign and experiment from October 2015 to

August 2016 on their Facebook page <https://www.facebook.com/cambridgearchaeologicalunit>, Twitter profile <https://twitter.com/MustFarm> and their own website <http://www.mustfarm.com/>. All three platforms shared photographs, descriptions and stories from the field and a Site Diary posted weekly on the dedicated website (Wakefield, 2020, Chapter 2).

Before the digital opportunities, outreach generally existed of site tours, lectures/talks for local communities and traditional media coverage. Due to the limited access to the Must Farm site, fewer people could attend the site tours than wanted so the team devised a social media campaign both to promote the site and to show the audience results/objects that were being excavated in real time. Two outreach officers were appointed from the excavation team, one to handle traditional outreach and one to handle digital outreach. Both did the job part-time, 16 hours a week were dedicated to outreach efforts and the remaining hours on site excavating (Wakefield, 2020, Chapter 2). The biggest emphasis was put on content for the Facebook page. This was both done due to a lack of research on using Facebook as an outreach tool and Facebook has the biggest user base. All content focused on using language free of jargon readable for both non-experts and experts, often sharing current on-site theories and thought processes. They would sometimes prove to be incorrect but the audience appreciated seeing both how archaeologists changed their interpretations, came up with different theories and how archaeological research is a constant process. Must Farm's Facebook page quickly became the most popular platform the three used in the campaign (Wakefield, 2020, Chapter 2.1). The project decided not to use other forms of media like videos as that might take up too much of the outreach officer's time and focused on sharing images and text and engaging with followers (Wakefield, 2020, Chapter 5.3).

Between 6th October 2015 and 8th August 2016, 306 posts were published in 302 days. Of those, 265 were excavation updates with images and descriptions. The remaining 41 directed users to the Site Diary. Interest was limited at the beginning of the endeavour but slowly gained followers and interest, and interactions increased. On average, 15 new users followed the page every day. For the first three months, the page reached on average 2117 profiles (Wakefield, 2020, Chapter 4.1). Once the page had become more established posts usually reached an average of 6000 users (Wakefield, 2020, Chapter 4.3). When the excavation was over Must Farm's Facebook page had received 74,878 likes on their entire content, averaging 245 per post (Wakefield, 2020, Chapter 4.5.3). Thousands of people were reached every day,

but what constitutes a meaningful interaction? Is a user who scrolls past an image of an excavation a meaningful interaction?

A key aspect of both traditional and digital outreach is engagement, a back-and-forth communication between archaeologists and the public. Currently, in the USA and the UK, there are no requirements to be met and no evaluation takes place, the only benchmark to be met is if public engagement took place at all (Ellenberger & Richardson, 2019, pp. 67–68). In fact, the same can be said for much of Europe (van de Dries, 2015, pp. 46, 48, 52) University faculties and other scientific institutions view outreach as a volunteer activity and it is rarely rewarded. Many scholars would like to do more outreach but do not have much time for it. (McClain, 2017, pp. 1–2). When research is funded, a Facebook site is not seen as legitimate outreach and funders look more favourably towards blogs even though traffic on Facebook posts would be much greater (McClain, 2017, p. 7). Engagement in traditional outreach is straightforward where the archaeological material is presented and the audience responds with questions and comments. Engagement could reach deeper by involving the community in the research, hosting workshops etc. What does engagement look like on a social media platform such as Facebook? Reach count on Facebook is the total number of user profiles that got a post in the News Feed and scrolled past it. This is really useful to see how far the content is reaching and to monitor the growth of your page. There is no way to see if the user acknowledges the post and as such it cannot be viewed as actual engagement (Wakefield, 2020, Chapter 4.5.1). When analysing outreach on social media every medium must be evaluated on its own as they all use different metrics. For example, “Reach” quantifies the number of individual accounts that “see” a post and “engagement” measures, “social involvement” or the number of times a post was liked, saved, commented on or shared. Twitter only offers data on social media “impressions” vs “reach”, quantifying the times people saw a particular “tweet” instead of how many individual accounts saw it. If an account revisited the post three times the “impressions” count every time (Pavelle & Wilkinson, 2020, p. 3).

The most basic form of engagement that can be measured on Facebook is clicks on a post but understanding what this engagement means is impossible. At the very least it shows how many were interested enough to click on the post out of how many users were reached. A small percentage of clicks lead to interactions, Must Farm had on average 29.6% of clicks turn into interactions in the form of likes, comments and shares. Their weekly Site Diary posts had a smaller reach and fewer clicks than other posts (i.e. less popular) but had a higher

percentage of user interaction (Wakefield, 2020, Chapter 4.5.2). That could be due to “big fans” of the project, who read the Site Diary and look forward to hearing more news, are more engaged than the regular follower so they interact more.

The digital outreach from Must Farm showed how outreach can be done on a small budget. There was a small cost of hosting the website and part-time wage for the outreach officer. Slightly over 1% of the budget was spent on outreach and the only tools needed were a camera, a smartphone and a Wi-Fi connection (Wakefield, 2020, Chapter 5.1) The lessons learned from Must Farm’s digital outreach campaign are a well thought-out strategy, consistency, simplicity and a human connection. By employing a part-time digital outreach officer who’s part of the excavation team, they could share content every day in real-time and interact with the project’s followers. If social media posts are to be effective the communicator needs to find a balance between an informative yet entertaining narrative without compromising scientific accuracy (Pavelle & Wilkinson, 2020, p. 6). As mentioned before, by applying digital outreach the archaeologist is able to control the narrative. However, the communicator must be aware that when he shares that narrative with the world it is out of his hands. The public and the media could interpret it differently and share it in ways the communicator could not have predicted (Gruber, 2017)

4.5 Conclusions

The goal for a dedicated outreach website designed with the public in mind needs to tell a narrative the audience will find interest or relate to. Before the website is built and designed it needs to have a clear goal. The goal should include how many years the website is intended to reach out. A 3–5-year period is advisable, after that time a decision needs to be made if the website should continue or if it has served its purpose. Holding the attention and evoking a user’s curiosity should be the goal of the overall design of the page. Reading should be kept to a minimum and photos, videos and other visuals used to push the narrative. Connecting social media to the website is highly recommended because the way people use the internet today is very social media-centred. Strategy, planning and goals are important if the outreach is supposed to succeed. The outreach officers need to think about how social media is used, how will it aid the site and vice versa. Different institutions and research projects have different budgets, some are state-run, others are private and others are volunteer and community-based. Smaller institutions or projects usually have a very limited budget for outreach. In those cases, simplicity is key, both in terms of website design and outreach strategy.

5. Discussion and conclusion: the (future) public outreach of the research at Fjörður embedded in Icelandic heritage

The Fjörður site is an illustrative example of Icelandic history running from the Viking Age to Modern Times. The site's earliest phase is a pre-Christian burial site from the Viking Age. Four burials have been found; a boat grave, a female grave, a male grave and horse grave. In the Medieval period a lot of activity was carried out resulting in a large amount of peat ash and animal bones. From the 13-14th century onwards some small medieval buildings were built, abandoned, and later covered in tephra from 1477 AD. In the 19th century, the historical farm Fjörður leased land to crofters who built a small hallway farm that was hit by an avalanche along with many others in the winter of 1885. In the 20th century the site was a grassy hill where a lot of activity from the Allied occupation in World War II took place. Finally, locals buried farm animals and trash at the site. In between these different periods, landslides of varying degrees covered the site which people later overbuild. Therefore, the site not only illustrates Icelandic history in a nutshell it also shows the deep history of the difficult and struggling relation between man and the challenging Icelandic landscape. The latter indicates the importance of the archaeological research of the site including a broad public outreach.

5.1 Public outreach: goals and strategy

To tell this story to the public an outreach goal and strategy is needed. What goal to reach and the framing of the strategy will vary between projects. Variables like term of the project in years, the overall scale of the project (i.e. small/large excavation), the amount of people you want to reach out for, who is the intended audience, and the budget available for outreach affect the decision making process behind deciding upon a goal to be met and what strategy to implement. The size of the target-group can range from a small, local community with a close connection to the project to large communities such as the whole of Iceland or even beyond that. These people have other interests and are less connected.. A last but very important variable is content of the research project. Not every narrative is usable or interesting for an extensive outreach program. In the case of Fjörður the latter is clear.

The different variables determine the character and focus of the outreach: sharing of information, educating, participation etc. Important aspect in deciding the goal is to choose a realistic one. For many archaeological projects, ideally, they would like to reach as many people as possible. If the goal to reach a set number of people is very high (in the tens or hundreds of thousands) then splitting the big goal up into many little goals should be

included. For example, if the long-term goal is to reach a 100,000 people by the end of the project, setting a monthly goal of 5,000 people reached is more realistic and would aid in reaching the set minimum goal. The minimum goal should also include a minimum of what exactly is supposed to be reached. Is it a minimum number of views on the website, number of engagements, or number of subscribers to a newsletter? Once all goals have been determined a strategy to reach the goal is needed. The strategy should involve elements like:

1. Production.

This depends on the goal set and the time, budget, equipment and skill available. For example, is written material shared and if so what kind, how are photos taken and of what, how is video content made and if so of what, how long should a video be, are live updates in the form of text or is a live video feed? Accumulating material during the excavation season is ideal so more content can be made during post-excavation.

2. Sharing.

Which mediums are used with the website and how they are used needs to be defined. If multiple social media platforms are chosen, is different kind of content chosen to fit the media or is the same content shared across all platforms?

3. Timing.

Sharing some kind of content on social media every day is ideal. If not, then as regularly as possible. Time zones and time of day matters on social media but should have little relevance on website updates.

4. Engagement.

Where will engagement happen and how? And what constitutes engagement? Comment sections or threads on social media gather people together so they engage as a community. Messaging over social media provides a private conversation between a member of the audience and the communicator.

Goals and strategies finally determines which tool or tools are most suitable and profitable for the public outreach of a project.

5.2 The use and possibilities of websites for archaeological projects

Websites can be an important component of public outreach in archaeology. They are especially suitable for very visual archaeological projects like an excavation with many different components. The possibilities are many because virtually any concept can be placed on a website. Websites were used as the only online outreach tool before the traction of social media and might be an underestimated tool, at least in Icelandic archaeology.

Most people have (some) interest in archaeology, but they usually lack knowledge of its existence. Websites can be an important tool to make ‘the public’ aware of their heritage. But a clear goal and strategy is needed. Despite archaeologists turning to social media like Facebook and Twitter, websites still have a relevance in archaeological outreach, however, their application and approach should be different from former use. Archaeological websites were used as an all-purpose device that was intended to reach both the public and the scientific community like the Hólar website. Archaeologists and other scientists demand different methods for communication (and have different interests) than ‘the public’. The public is a very diverse group consisting of locals who share the same heritage and non-locals who might be interested in the heritage. Archaeologists excavate and research for the public, who which collectively owns the heritage and have has a right to learn about it, thus it is imperative to communicate it to them it (van de Dries, 2015, p. 53). Efforts have been made with success in communicating archaeology in Iceland, like the Hólar project (Guðmundsdóttir, 2011, pp. 29–31), but a much bigger effort is needed to increase the public’s awareness of their its own archaeology and heritage. Archaeology would benefit from an increased awareness of archaeology. With more public interest in the subject more funding would flow into archaeology, the Christianization Fund from 2000 – 2005 is evidence of this.

5.3 A website for the archaeological project Fjörður

An appealing, up-to-date website with attached social media is the most appropriate tool to engage people and introduce them to the project. The website should act as a backdrop to the research and lay the foundation of the interpretation to the viewer. How should a narrative/s be communicated via the website? A narrative that is a broad generalization of the interpretation is advisable, especially in cases like Fjörður, which have a long history. It is important to not get stuck in the details so people will absorb as much of the narrative as possible (South, 1997, pp. 54–55). It’s also positive to let visitor’s imaginations run a little bit (South, 1997, pp. 61–62). A narrative from Fjörður based on the archaeological data could emphasise people’s struggle with nature like avalanches, landslides, deforestation and changing climate. People of the fjord have always struggled with these things and will continue to do so, especially with the present human-induced climate change. Another narrative is about people’s daily life. The audience needs something they can relate to, something that connects them to the people of the past. There are plenty of household artifacts from Fjörður that can do this, for example, an iron for ironing clothes, tableware, or

fishhooks. The Fjörður commercial excavation used social media with some success in the past and has accumulated a small following. The next step in the outreach is the website and applying a goal, strategy, and methodology to this process. The population of Iceland is small enough, 375,000 (Hagstofa Íslands, 2023) so for the Fjörður project it is a high, yet achievable goal to reach that number of people. It is likely impossible to know if every single person in the country knows of the project, but metrics could give an estimation from each part of the country the percentage of the population has viewed the website or social media. A more reasonable, first goal could be to reach the East Fjords of Iceland which people stand closest to the heritage and the narrative. The East Fjords have a population of 11,000 (Hagstofa Íslands, 2023), a number of people that could realistically be reached before the end of the year for example. Keywords on the website hopefully attract the locals when they use search engines to look up things in their environment. Local Facebook pages could be reached like pages for certain municipalities or neighbourhoods. Then local society pages could be reached which members are interested in a certain type of history. Reaching out to traditional media, like a local newspaper, would help to focus more attention on the website and reach people who don't use social media much. The underlying work by starting the Fjörður website underway so the strategy and methodologies simply need to be followed through to reach the set goal.

With the making and updating an outreach website the methodology should involve the arrangement of pictures, videos and text to fit the narrative.

1. Start by accumulating material and writing a short text. Start the narrative on the 'Homepage' and continue it throughout the site. The purpose of the website can be stated outright on the homepage.
2. Make an 'About' section that explains who is behind the website. The purpose of the website could also fit into the 'About' page.
3. Including a 'Publications' page where academic papers, research reports or journal articles gives the website more credibility and enables those who are more interested to learn more.
4. Then make various pages about what makes the research unique and interesting. Use titles that describe the pages and avoid using academic or report language, for example instead of 'Area B2.14' name it 'The Green Hill' or 'The Bishop's Tomb'. Once you have the meta-data ready, play around with designing the website like where to place pictures and text, colour themes and fonts. When adding a heavy

feature like a 3D model be wary of loading speeds. If the loading speed is too slow people are likely to stop using it.

5. Search Engine Optimization is an important step to keep in mind. Besides finding out about the website on social media, you want people to find the website via search engine. Having a fitting domain name helps. Include in the texts words and phrases people might search for to get the website higher up in search rankings. Creating a 'Blog' or 'Diary' page is a great way to optimize the website's ranking by including a lot of 'keywords' or 'keyphrases' in the blog entry.
6. Connect social media to the site via buttons with recognizable icons. This could also be done by making social media part of the site. For example, the newest Instagram photo or Tweet shared will appear somewhere on the website.
7. Share content on social media as regularly as possible. Not only is it to reach new people and gain followers but to stay relevant in the hierarchy of people's social media feeds. Strategically, choose a few hashtags that you attach to every shared piece of content. This helps make the accounts more discoverable. Engage with the followers as much as possible and establish trust with the audience.

5.4 A website as central platform within the public outreach of the archaeological research at Fjörður

The purpose of the website seydisfjordurarchaeology.com, which was created as a part of this thesis, is to act like a gallery or a pamphlet to communicate a narrative and not like an interactive research report. The website is only intended as one tool in a toolbox that includes different methods of traditional and digital outreach. Websites such as these are not intended to last forever, they are only used to reach a set, long-term goal, be it 5, 10 or 15 years for example. The website will be bilingual because the goal is to reach the (local) Icelandic public, any residents who cannot read Icelandic and the public outside of Iceland such as tourists or people interested in history or archaeology. The accompanying social media campaign will mostly be in Icelandic, therefore it is important that the website is prominent in search engine results so tourists and other interested groups can find it. The website will serve as a central platform for the whole public outreach, between the website to social media and other platforms. Social media is connected to the website which people can visit to the archaeological research. From there they observe how archaeologists workday to day, they can ask questions and provide their insight. Often 'the public' possesses more knowledge of

the past than it is given credit for. Social media can bring the society closer to the excavation site and let it participate. The website will enable the public to know and understand enough to contribute to the project. The use of appealing images, maps, vlogs, and graphics is necessary to reach different groups. Text should be kept to a minimum and images let tell the narrative as much as possible. That often works better and lets people's imagination fill in the rest. These kinds of websites are a testament to the research that took place and do deserve some kind of conservation. It is possible to download data from an entire website and store it on a hard drive or a cloud but it is unlikely that someone in the future will go through the effort of retrieving such data. The most effective way to "conserve" the website before it is taken down is simply to take screenshots of every part of the website and possibly copy-paste the texts if necessary.

5.5 In practice

Archaeologists are usually enthusiastic about sharing their knowledge and their research results because that is (or should be) the goal of any research, without public outreach research is futile. However, budget is usually what impedes outreach efforts the most. Most of the available funds go towards excavation efforts like wages, equipment and analysis but unfortunately, often the budget does not cover these basic requirements. However, online outreach efforts can be done for relatively little cost. The annual cost to host a website is small and social media is free to use. The problem is also a lack of time, because most of an archaeologist's day goes into the research itself. Most of the cost arises from time and wages for those who build and design the website, create content and communicate with the audience. Must Farm showed how this cost can be lowered by having an archaeologist enthusiastic about outreach handle it part-time. Despite such successes, the root of the problem still needs to be addressed. The bulk of archaeological excavations in Iceland and elsewhere in Europe are commercial excavations ultimately paid for by the taxpayer. The taxpayer is the public who owns the heritage yet is rarely included in the conversation nor shown the research results. The biggest step that could be taken for archaeological outreach now, is to make it a mandatory part of the budget for commercial archaeology projects. There could be an evaluation included that estimates a minimum outreach effort to be met and the budget to reach that goal.

5.6 Conclusion

Iceland's history goes back to the 9th century when Norse settlers arrived on the island. Iceland's environment was challenging but people adapted to it. Archaeological material

from Fjörður represents much of Iceland's history from the Viking Age to the Modern Period. Archaeology used to be popular in traditional media but decreased with time, evidenced by the decreasing member rates in the Icelandic Archaeology Society. Notably archaeology has been underrepresented in Icelandic media in the 21st century and archaeologists are largely responsible for mediating their own research. This is not a productive and sustainable situation. The consequences are that a lot of information is unknown which leads to a minimal of engagement, locally but also beyond

Present technology has progressed to a point where it is relatively easy to share a lot of information online through many different mediums. Social media is widely used but other online mediums seem to be ignored, the discipline could benefit from exploring other mediums. Many good but also less good or even bad examples are known. Video is an unused medium as no effort has been made to make or share video material about Icelandic archaeology as it is not present online. Archaeologists are thus willing to communicate to the public utilizing different mediums but the problem is that of time and budget. The taxpayer pays for archaeological excavations yet is not given the option to learn about that heritage because there was not a budget made for public outreach. This is why using social media is so popular because it is the only outreach the archaeologists can do with their limited time and budget. The first step to mend this situation is to make a budget for public outreach a mandatory part of the budget in commercial archaeological research.

Websites are an underrated tool in (Icelandic) public outreach. They were used more often in archaeological outreach in Iceland between 2003-2012 but have (mostly) fallen out of use. Archaeologists turned largely from dedicated websites to social media. Social media has important applications in engaging with the audience, but it may not help them gain a complete understanding of the archaeology and what it represents. Repurposing websites to tell a narrative based on archaeological results could help people gain an understanding of the archaeology. The website can be considered a digital gallery or a pamphlet that would act as a backdrop to other outreach efforts. Using a website for this purpose should work well for both small and large research depending on the goal, strategy and methods implemented. The use, possibilities and advantages of websites are:

1. Easily reaching out for a large audience (world wide web) which makes it also usable for attracting tourist to the site
2. Usable for telling a narrative in an appealing, visual manner
3. Sustainable. Can constantly be improved / updated
4. Two-way communication attaching a chat or social media

For an online outreach campaign to be successful, planning is important, starting with a clearly defined goal. Then, following a seven-step strategy the goal should try to be reached by using methodology based on the strategy. If the goals do not seem to be met, changing the methods or even strategies are advisable. The design and function of the website should be aesthetically pleasing, easy to use yet maintain the visitor's attention and encourage discovery. Connecting the website with a social media campaign is essential in the modern internet environment. Optimizing the website to appear in the first page of search engines is ideal to attract visitors who do not find the website through social media. This would improve the existing outreach campaign that relies solely on social media. With a realistic goal, strategy and methodology finalized, the website can begin its outreach. The narrative reflects how the deep history of Seyðisfjörður shows the inhabitants' resilience against the environment and would illustrate the chronology of the site in a relatable way. The narrative also displays the work that archaeologists undertake and how they collect and research this knowledge. This has the potential to increase the awareness and benefits of the work that archaeologists do and the importance of public outreach. It increases valuation and engagement of (archaeological) heritage. Without public outreach archaeological research has no future.

Abstract

This thesis explores how websites can be utilized as tools in archaeological public outreach, using a commercial excavation in Iceland as an example. A website was created around the commercial excavation in Seyðisfjörður, eastern Iceland named Fjörður. The research takes place where avalanche protection walls will damage archaeological sites. The archaeology found at the site is represents Icelandic archaeology in a nutshell from the Viking Age to Modern Times. A landslide hit the village of Seyðisfjörður in December 2020. When the archaeologists started excavating the site they found large landslide layers in between cultural phases. What narrative can be told about the long-term history of the archaeological site Seyðisfjörður, including the ongoing influence of the landslides, and how can we translate that narrative to the general public? The narrative reflects how the deep history of Seyðisfjörður shows the inhabitants' resilience against the environment and would illustrate the chronology of the site in a relatable way. The relationship between outreach websites and social media is explored and how strategy in outreach is a key factor in a successful outreach campaign. The narrative also displays the work that archaeologists undertake and how they collect and research this knowledge. This has the potential to increase the awareness and benefits of the work that archaeologists do and the importance of public outreach. It increases valuation and engagement of (archaeological) heritage. Without public outreach archaeological research has no future.

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