

Icelandic medieval monastic sites – vegetation and flora, cultural plants and relict plants, contemporary plant-names

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Were there monasteries in Iceland in the Middle Ages? How many were there? Where were they located, how were they built and, above all, were there any adjacent monastic gardens? The Nordic project “Icelandic medieval monastic sites – vegetation and flora, cultural plants and relict plants, contemporary plant-names” will try to contribute to answering these questions that can be summarized as follows: What cultivated plants and garden plants were known and used in the medieval Icelandic monastic context? Will new research into the relatively uninvestigated and largely untouched medieval Icelandic monastic sites modify our knowledge of the form and plant life of the Nordic monastic garden?

*The project has its starting point in the archaeobotanic findings of some medicinal plants, such as a species in the onion genus (*Allium* sp.), stinging nettle (*Urtica dioica*) and greater plantain (*Plantago major*), made during the excavation of an Augustinian monastery, Skriðuklaustur in Fljótsdalur, eastern Iceland (occupied 1493–1550) led by archaeologist Steinunn Kristjánsdóttir at the University of Iceland (fig. 3).¹*

Background

According to tradition Celtic anchorites settled for a short time in Iceland as early as the 8th or 9th century. The oldest written records state, however, that the colonization of Iceland began in 874 when Ingolfur Arnason settled at what was later to become Reykjavík, today the capital of Iceland.²

Icelandic society had become well-organized as early as the 10th century. The General Assembly (*Alþing*) is said to have met for the first time in the year 930 and met every year at midsummer at Þingvellir in southern Iceland. There, in the year 1000, the participants in the General Assembly chose Christianity to replace paganism as the religion of the country. An important concession made at the time was that some of the old religious customs would be tolerated during a transitional period.³



Figure 1. Helgafellklaustur (1184–1551), an Augustinian monastery, situated some kilometers south of Stykkishólmur in north-west Iceland. The picture is taken from the top of the 73 meters high Helgafell (the holy mountain). The monastic site is supposed to have been located at the foot of Helgafell, between the mountain and the present church. (Photo: Kjell Lundquist, 3 July 2009)

In the 11th century the two bishoprics of Skálholt (1056) in the south and Hólar (1106) in northern Iceland were established. All over Europe thousands of monasteries were founded during this relatively peaceful century. In Scandinavia around 70 monasteries were established in Denmark, some 50 in Sweden and around 30 in Norway. In Iceland 10–12 monasteries were established. Various kinds of utility gardens were common and eventually gardening became highly developed. The cultivation of medicinal and utility plants was important, and evidence of gardens has survived at several of the Nordic monastic sites.⁴

Monasteries and nunneries

In Iceland today there are 9–10 recognized medieval monastic sites and another 2–3 might be added to these. The oldest monastery, Þingeyrar, situated in northern Iceland and belonging to the Benedictine order, was founded in 1133. The last established monastery, 360 years later, was Skriðuklaustur in eastern Iceland, established in 1493 by the Augustinians. Only two, Kirkjubæjarklaustur and Reynistaðarklaustur, both belonging to the Benedictines, were nunneries. All the others were monasteries (fig. 2).

The Danes brought the Lutheran faith to Iceland in 1550, and with it a state church under heavy Danish influence. The transla-

1 Kristjánsdóttir 2008, Kristjánsdóttir 2006, Harðarson 2008.

2 The exact year is somewhat difficult to pin down. At an exhibition in Reykjavík the year is given as 871 +/-2.

3 The law, Grágás, was first written down in 1117–1118.

4 See for example Åsen 2009, Lundquist 2007, Larsson 2009, Løjtnant 2007.

tion of the New Testament into Icelandic was completed ten years earlier, in 1540; by 1584 the whole Bible had been translated. The doctrines of the Reformation brought an end to monasticism in Iceland, just like in the other Nordic countries.

The project – questions, aim and purpose

The important questions to be answered are which cultivated plants on the whole and garden plants in particular were known and used in the medieval Icelandic monastic context. A hypothesis has prevailed that the Scandinavian monastic sites seem to show a more intensive history of cultivation and building after the Reformation than the Icelandic sites. The plant material in Scandinavia is therefore thought to have become more contaminated by later cultivation, and therefore more difficult to investigate.

The Nordic project group consisted originally of Kjell Lundquist (SLU, Alnarp, landscape architect by training and garden historian with a special interest in the history of cultural and garden plants), Steinunn Kristjánsdóttir (University of Iceland, archaeologist specialized in medieval monastic grounds), Inger Larsson (Stockholm University, linguist specialized in vernacular plant-names) and Per Arvid Åsen (Agder Naturmuseum og Botanisk hage, botanist specialized in surviving plants on monastic grounds).

The aim of the project is to increase our knowledge of the shape of the Icelandic monastic garden, the growth, the plant-material and the contemporary plant-names, in order to be able to compare, interpret and confront these results with accepted opinions about the monastic garden, its cultivation and the plant material found in similar contexts in the other Nordic countries. Another aim has been to vitalize the discussion and research on the contents and shape of the medieval monastic garden.

Our purpose has been to make a preliminary inventory of cultivated plants in general and medicinal, utilitarian and ornamental (relict) plants in particular in a landscape context. Furthermore to collect existing archaeological and documentary information and evidence on plants, and to judge the importance and possibilities of new and complementary archaeobotanical investigations (pollen and plant macrofossils). Additional information on plants and vernacular plant-names from medieval Icelandic written sources will be included.

Work in progress

In the summer of 2009 all monastic grounds then known to us were visited. We made 5 Kristjánsdóttir 2008.

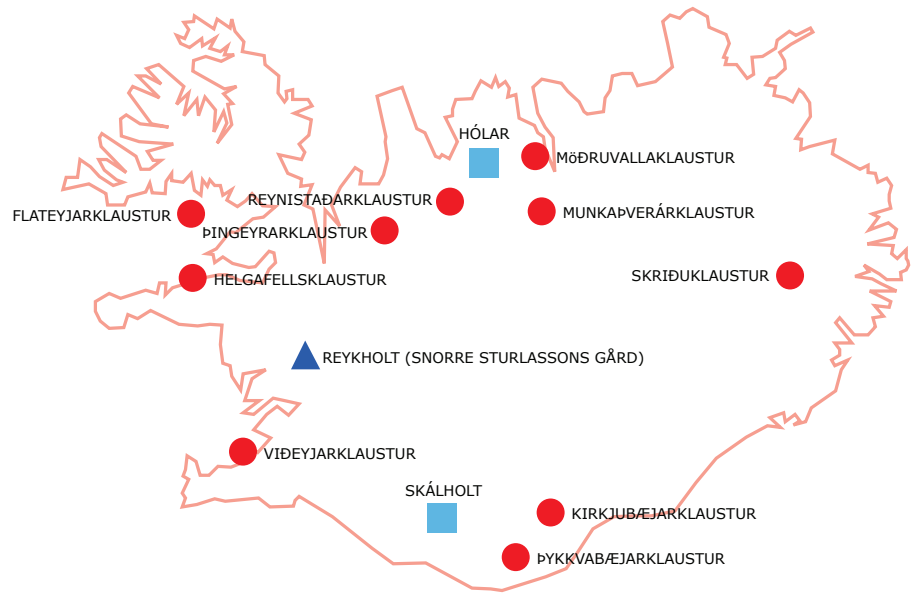


Figure 2. Visited and surveyed medieval sites in Iceland in July 2009: monastic sites, bishoprics and Snorri Sturluson's Reykholt. (Graphics: Einar Goksøyr Åsen 2010)

a fairly complete survey of landscape and plants on every site. Particular attention was paid to the presence of relict cultivated plants, above all medicinal, utility and ornamental plants of possible monastic origin, or older. These are plants which might have been used, cultivated or collected in the vicinity of the medieval Icelandic monasteries.

Three new medieval grounds with possible monastic connections remained to be investigated: Hítardalur, Bær and Saurbær, together with ancient farms like Hlíðarendi and the few sites with the rare and mysterious burnet rose (*Rosa spinosissima*). This work was undertaken during the summer of 2010.

The following monastic sites were investigated:

Helgafellsklaustur (1184–1531). Augustinian monastery, situated a few kilometers south of the town Stykkishólmur in northwestern Iceland (fig. 1).

Flateyjarklaustur (1172–1184). Augustinian monastery, situated on an island in Breiðafjörður, north of Stykkishólmur. The monastery was moved to Helgafell in 1184.

Þykkvabæjarklaustur (1168–1551). Augustinian monastery, situated in pasture land as an island in the delta landscape of Mýrdalssandur southeast of Mýrdalsjökull, ca 5 kilometers from the coastline.

Kirkjubæjarklaustur (1186–1551). Benedictine nunnery, situated ca 35 km northeast

of Þykkvabæjarklaustur. Archaeological excavations were undertaken there 2002–2007.

Skríðuklaustur (1493–1550). Augustinian monastery, situated about 35 km southwest of Egilsstaðir in Fljótisdalur. Archaeological excavations began in 2002 and are being conducted by Steinunn Kristjánsdóttir. They are estimated to continue until 2012. Documentation is available on the project's website, <http://notendur.hi.is/sjk/SKR.htm> (fig. 3).

Munkapverárklaustur (1155–1551). Benedictine monastery situated about 15 km south of Akureyri in Eyjafjarðardalur.

Möðruvallaklaustur (1296–1551). Augustinian monastery, situated ca 10 km north of Akureyri on Eyjafjörður.

Þingeyrarklaustur (1133–1551). Benedictine monastery, situated in the lowland by Húnaflói on the north coast of Iceland, ca 15 km south of Blönduós.

Reynistaðarklaustur (1296–1551). Benedictine nunnery, situated on the north coast, southwest of Hólar and about 10 km south of Sauðárkrúkur.

Víðeyjarklaustur (1225–1551). Augustinian monastery, situated on an island just north of Reykjavík. Archaeological excavations were undertaken 1987–1995.⁵

Other places visited were the two medieval bishoprics Hólar and Skálholt, as well as Snorri Sturluson's home Reykholt and Egill Skallagrímsson's farm Borg in Borgarnes.

Hólar, bishopric of northern Iceland, established in 1106. Archaeological excavations



Figure 3. The Augustinian monastery Skriðuklaustur (1493–1550) in Fljótisdalur on eastern Iceland. View over excavated and restored monastic grounds to the left and new excavations to the right. A type of cloister can be seen in the center of the picture. The excavations, led by archaeologist Steinunn Kristjánsdóttir, started in 2002 and are still in progress. (Foto: Kjell Lundquist, 8 juli 2009)

started there in 2001, led by archaeologist Ragnheiður Traustadóttir. Documentation on the project's website <http://www.holar.is/holarannsoknin/>.

Skalhólt, bishopric of southern Iceland, established in 1056. Archaeological excavations undertaken 2002–2007. No information on plans for future excavations is available (fig. 5).

Publication of results

The final results from the project 2009–2010 will be presented as a report in the series published by the LTJ-faculty at SLU, Alnarp. The report will be lavishly illustrated with old and newly taken pictures showing the investigated monastic sites as well as the medicinal, utility and ornamental plant relicts found. It will be published in cooperation with SLU, Alnarp, Stockholm University, Agder Natural Museum and Botanical Garden and University of Iceland. It will be published in Swedish and Norwegian with plans for future publication in English.

Preliminary results

Having spent two weeks in an Icelandic medieval monastic context in 2009, where most sites do not reveal anything at all about their past, some 450 years after the dissolution of the monasteries you can say almost nothing about the medieval growing conditions, and at the same time you can say quite a lot. Only three of the medieval monastic sites have been subjected to archaeological excavations – Kirkjubæjarklaustur, Skriðuklaustur and Viðeyjarklaustur. The excavations identified the exact position of these monasteries, which had been unknown before.

The precise positions of the monastic 6 Harðarson 2008.

buildings on the other sites is not yet known. The suggestions for possible positions vary widely, and the distances range from ten to hundreds of metres. The location of possible gardens and other cultivated spots can only be a subject of speculation. Most of Iceland's material and underground monastic history remains to be unveiled.

And yet, through scarce but ever-increasing information on the plant-mate-

rial, especially through the pollen investigations in the medieval segments – in monastic contexts, at the bishops' residences and in different farm and port environments – we notice some well-known cultural and garden plants, plants with possible medicinal qualities and weeds which were not known before the settlement of Iceland or the establishment of the monasteries, and which are very rare or do not grow wild in Iceland today. We find both exotic and indigenous species which have been domesticated or collected to differing extents (for example common flax, 'wild leek', common stinging nettle, greater plantain, common valerian, angelica, foxtail barley, bog myrtle, ribwort plantain, great burnet and a variety of *Artemisia*).⁶

The findings became apparent as we listed them and new information will be added after every excavation where an archaeobotanical investigation is undertaken. Eventually all the pieces will fit together.

Cultural and garden plants known in Iceland and abroad, common or rare, have been recorded during our surveys of the monastic sites. It is easy to be captivated by the beautiful and spectacular flowering plants, known medical plants such as great burnet (*Sanguisorba officinalis*), meadowsweet (*Filipendula ulmaria*), common valerian (*Valeriana officinalis*), tansy (*Tanacetum vulgare*), white deadnettle (*Lamium album*), common yarrow (*Achillea millefolium*), caraway (*Carum carvi*) and angelica (*Angelica archangelica*). These and many others have been found on the monastic sites, but their status as true medieval relict plants must be judged individually in every instance.

One particular species must be commented on. At Dingeyrarklaustur we found German madwort (*Asperugo procumbens*) (2009 and



Figure 4. Angelica, in Icelandic hvömm or aetihvönn, next to the Skogafoss falls on the south coast of Iceland. The Angelica was highly esteemed during the Middle Ages in the Nordic countries and was protected by law against theft. It was used both as a food plant and a medicinal plant but was also thought to be endowed with magic power. The whole plant was used: root, stalk and seed. (Photo: Kjell Lundquist, 5 July 2009)



Figure 5. Per Arvid Åsen and Inger Larsson in the newly laid out herb garden in Skalhólt, the first bishopric in Iceland established in 1056. Archaeological excavations were undertaken in 2002–2007. In the foreground you see valerian (*Valeriana* sp.) and dooryard dock (*Rumex longifolius*). In the background the new cathedral in Skalhólt, built 1956–1963. (Photo: Kjell Lundquist, 13 July 2009)

2010), some hundred meters south of the supposed monastery grounds. The species is not known in Iceland today and has not been reported on the island since 1929, and then from the same place. German madwort has its origin in the mountainous areas of eastern Europe and western Asia and has spread as a weed

throughout most of Europe. Today it is disfavoured and its existence is regarded as being threatened in several European countries.⁷

How, when and why German madwort made its way to Iceland, however, can only be speculated on.

Nevertheless, in Iceland it is cultural plants of another kind that are the most important ones, vital for the wealth of the country: the different grass species for grazing. Before the colonization grass was relatively sparse which is well shown by the pollen investigations. Vegetation was dominated by downy birch and heather. Grass was only found in areas where wildfowl were abundant. Their phosphate-rich guano manured the ground, creating a favorable soil for the grasses.⁸

So it is above all the grasses for grazing which have guaranteed the survival of the Icelanders and laid the foundation for their relative prosperity. A simple glance at the maps showing the first colonization confirms this. The monastic establishments are no exceptions. They are found in places where there are means for survival and long-term support. Of course, in a society of freeholders property donations and land accessibility were vital. The most remarkable example of this is Þykkvabæjarklaustur, which is situated like a green grass island just above sea-level on Mýrdalssandur, southeast of Mýrdalsjökull and the volcano Katla. For four hundred years the grass sustained this Augustinian community. To this day, the production of grass for hay-making, ensilage and grazing is still the dominant use of the ground. The white or pistachio-green balls of ensilage, the Icelandic 'field-meringues', are quite a new phenomenon though.

All medieval Icelandic monastic sites are unique in one way or another. They are places of survival, well-situated for production of necessities, secluded, accessible and secure. Moreover, some of them have an aesthetic bonus, being deliberately positioned in the landscape, with a clear view and powerful impact. They are a beautiful sight if ever you saw one. The ability and boldness displayed in the placement of Helgafellklaustur and Þingeyrarklaustur in the landscape would make every modern landscape architect envious.

Further investigations

The project has so far been carried out according to plan. One of the aims has been fulfilled. We now know more about medieval Icelandic cultivation and plants, but we also have more to discuss and new questions have arisen.

The project group has so far enrolled two new members: archaeologist Inga Hlín Valdimarsdóttir, Stockholm University, to compile the results of all previous investigations of pollen and macrofossils from existing archaeological reports of excavations; and assistant professor Samson Bjarnar Harðarson, Agricultural University of Iceland, for botanical/plant introductory investigations with new methods. Two more members will gradually be involved, archaeologist Anna Andreasson, and landscape architect Boel Persson.

Particularly interesting is the Icelandic burnet rose (*Rosa spinosissima*) which today only grows on six sites, in places that reveal their ancient history.⁹

The question here is whether they are examples of a natural, prehistoric immigration or an intentional historic introduction. DNA fingerprinting analysis can here be used to answer questions about Iceland's botanical history. This in turn can be linked to the investigations of relict plants on the monastic grounds. In a future project comparative analysis with plant materials from all North Sea countries will be undertaken and Dr. Gun Werlemark, Department of Plant Breeding and Biotechnology at SLU, Balsgård, will then be affiliated with the project. A parallel project, concerning relict plants on the island of Bornholm, is also running¹⁰, and a larger project, "Dating the introduced biodiversity. The early history of cultural and garden plants in Sweden" including the Icelandic findings, is also *in spe*.

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7 The findings have been reported to Hörður Kristinnsson, responsible for keeping Flora Islands ájour, <http://www.floraislands.is/index.htm>.

8 Ragnheiður Erla Bjarnadóttir 2009, viva voce.

9 On the burnet rose, see Hallgrímsson 2006, pp. 4–39.

10 Bjerregaard 2006.

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- Webb: <http://epsilon.slu.se>.

- Other publications by the project will be in the Rapport-series, held by The Faculty of Landscape Planning, Horticulture and Agricultural Science, and on the webpage http://www.consideratecandidum.com/prosjekter/kloster_island/index.html.