

Were plantfibers cultivated in medieval Iceland?

Marianne Guckelsberger

Introduction

A cursory survey of medieval Icelandic vernacular and ecclesiastic textiles such as embroideries, wall hangings and altar hangings shows that material other than wool or silk is generally described as being made of linen yarn and linen fabric (“lín-garn and hörléreft”).¹ In this paper I am going to examine primary and secondary sources such as import lists, place names, church regulations and law compilations pertaining to ‘lín’ in order to find indications whether linen was imported or cultivated locally in Iceland.

Hemp and flax in viking and medieval Scandinavia

Hemp and flax were cultivated and processed in viking and medieval Northern Scandinavia not only because of their strength and durability but also because of their shine and luster which made them suitable for weaving, tablet weaving and embroidery. The Norwegian Överhogdal wall hangings Ia and Ib (900-1100 AD) and the Marby hanging (1030-1160 AD) are examples that hemp and flax were incorporated in the same textiles, and the Lomen coverlet from 1165-1260 was exclusively made of hemp.² Before the analysis was made they were believed of flax.

It is interesting to note that a tool was found at Narsaq in Greenland, a *landnáma* farm, which has a parallel in a Norwegian museum, identified as a “*bryde* (“a beater for ‘scutching’ hemp and nettle”) and in Bryggen, the main trading port for Greenlanders, 33 flax combs were registered, so it is well possible that flax processing tools were imported to Greenland. Additionally, five pollen grains from cultivated flax, seeds, and a piece of a ‘boll’ or seed capsule were found at the farm in Niaqussat (V48).³

Flax cultivation had a long tradition in Norway and was still part of the living memory of the Greenlandic settlers who continued the tradition in the favourable climate until the onset of the Little Ice Age. Fibers from flax and

1 Elsa E. Guðjónsson 2008

2 G. Skoglund, M. Nockert & B. Holst 2013

3 Østergård 2009:77

hemp were spun into sewing threads⁴ and eleven linen textile fragments have been excavated in Norse farms in Greenland so far.⁵

Textile fragments, tools and seeds allow the conclusion that flax production was part of the domestic economy in Norse Greenland but not in Iceland, where there is little or no evidence for domestic production. From the earliest phases after the settlement, linen fabrics appear as imported goods rather than produced locally.

As an interesting side note, another Norwegian tradition that continued in Greenland but was not, to my knowledge, practiced in Iceland, is purple dyeing with lichen such as *Evernia*, *Ochrolechia*, *Parmelia* and *Umbilicaria*.⁶

Flax and hemp in sources

That hemp and flax were cultivated in Norway and Sweden during the Middle Ages can be seen in documents and legal texts. In *The King's Mirror*, a royal educational text from 1250 in form of a dialogue between father and son, linen and hemp are mentioned as materials for a shirt when meeting the king but it should be shorter than the coat and not be seen. Linen was also important for the fabrication of battle armour such as gambisons and shabracks.⁷ An order of the church in Norway from the year 1277 says that the tithe to be paid to the preachers should consist of rye, wheat, hemp, flax, turnips and peas, and a Swedish law from 1295 also includes hemp and flax in the tithe.⁸ Sources in Iceland on the other hand do not mention local cultivation of hemp, linen or nettle for textile production.

Grágás is an Icelandic collection of laws written sometime during the Icelandic Commonwealth period 930-1262/64. The laws extended to all aspects of life and death. Linen is mentioned in connection with burials (the deceased should be shrouded in linen or *vaðmál*)⁹, church tithe (a part of it

4 Østergård 2009:103

5 Østergård 2009:78

6 Walton Rogers, 1993:56-58

7 Konungs Skuggsjá p. 90.

8 Schübeler, F.C. 1862:220

9 "Að færa lík til kirkju. Taka skal af fé því er hinn andaði átti, léreft eða vaðmál að búa um lík." *Grágás* Kristinna laga þáttur 6.

should be paid in wax, wine, incense, tar or new linen appropriate for church furnishings, which can be bought for vaðmál in the district)¹⁰, wills (inheritance shall be paid in silver, new linen, wax, woven woolen fabric or livestock)¹¹, ship imports (grain, linen, timber, wax and tar)¹², punishment for wrong measurements of linen and vaðmál¹³, valid measurements of linen and vaðmál with a measuring stick two ells long¹⁴, prices (“Wide linen, three ells, for two aura. English linen two ells wide, two ells for one eyri.”)¹⁵

Jónsbók is a compilation of laws from 1281, after Iceland came under Norwegian rule. Like Grágás, *Jónsbók* contains passages where linen *léreft* is mentioned. The positioning of linen and other ‘austrænn varningur’ (goods imported from Norway)¹⁶ amongst items like wax, liturgical vestments, vaðmál and metal pots indicates that linen was imported foremost for the clergy and the higher echelons of society.

The prices for fine cloth, vaðmál, cat skins, lamb skins, textiles, iron objects and other items were assessed by six appointed men.¹⁷ Since English linen (*enskt léreft*) is mentioned both in Grágás and in *Jónsbók*, and since these law compilations span several hundred years it can be assumed that linen was a standard import good. Which of course does not exclude the

10 “En þann fjórðung tíundar er til kirkjuburfta skal leggja, þann skal greiða í vaxi eða í víni eða í reykelsi eða í tjöru eða í léreftum nýjum, þeim er hæft sé til kirkjubúnaðar, svo sem getur að kaupa með vaðmálum í því héraði.” Grágás Kristinna laga þáttur 47.

11 “Það fé skal gjalda hér út í brenndu silfri eða í léreftum nýjum eða vaxi eða vöru íslenskri eða í búfé.” Grágás Erfðapáttur 15.

12 “Þeir skulu leggja lag á mjöl og á léreft og við og vax og tjöru.” Grágás Festapáttur 62.

13 “Slíkt varðar um rangar álnar á léreftum sem á vaðmálum.” Grágás Um Fjárleigur 53.

14 “Það er mælt að nú skulu menn mæla vaðmál og léreft og klæði öll með stikum þeim er jafnlangar eru tíu sem kvarði tvítugur.” Grágás Um Fjárleigur 85

15 “Breitt léreft, þrjár álnir, fyrir tvo aura. Enskt léreft tvíelnt [tveggja álna breiður], tvær álnir fyrir eyri.” Grágás Stakir kaflar úr Konungsbók 3

16 “Í léreftum og í öllum austrænum varningi og járnsmíði, öllu eftir sex manna virðingu.” *Jónsbók* 2004:292 Réttarbætur 26.

17 “Albreitt léreft þrjár álnar fyrir tvo aura. Enskt léreft tvíelnt, tvær álnar fyrir eyrir. Mörk vax fyrir eyri. Skrúðklæði, hafnarvaðmál.. kattaskinn.. lambaskinn... flatsmíði járn eirkatlar .. það er allt metfé, og þó réttgoldnir lögaurar. Allt metfé skulu virða sex skynsamir menn, þrír af hvors hendi.” *Jónsbók Kaupabálkur* 6.

possibility that some flax was homegrown but we still have to find proof.

Flax and nettle in the archaeobotanic evidence

Flax and nettle seeds are rarely found in the archaeological material of Iceland and don't give enough evidence for textile production. Their rarity can be explained by unfavourable preserving conditions of the Icelandic soil or simply because these plants were not cultivated on a scale necessary for textile production.

Nettles were grown though for consumption in monasteries, which were an important provider of health care. In Skríðuklaustur in Fljótssdal for example nettles (both *Urtica dioica* and *Urtica urens*), broadleaf plantain (*Plantago major*) and wild onions (*Allium oleraceum*) were cultivated in the garden because of their healing properties. Nettles in whatever form were also consumed in the infirmary (*infirmarium*) where nettle pollen was found.¹⁸ Seeds, hairs and calices of nettle were also present at Bergþórshvöll, the famous farm in Njáls saga which burned down in 1011. There nettles grew in considerable numbers, making up for "twenty parts of all the seeds in the burnt area".¹⁹

No flax seeds were found in the so-called *línakur* (flax field) at Bergþórshvöll, a walled garden where great amounts of chickweed pollen were found.²⁰ Flax seeds are also rare but some have been found in Skálholt under the tephra from the eruption of the volcano Mt. Hekla in 1104. It has been noticed that barley seeds are much more common in the archaeological material than any other seeds.

Medieval monasteries in Iceland sought to expand their lands by housing and boarding people *próventufólk* for as long as they lived. In return for a living space, food and an annual allowance of linen, vaðmál, fire wood, shoes and other, the monastery got ownership over the *próventufólk's* farm land and its natural resources such as fish, seal or drift wood.

Sources say nothing about what imported linen was used for (clothing, bedding etc) but several medieval embroidered pieces have survived, for

18 Steinunn Kristjánsdóttir 2012:122

19 Sturla Friðriksson 1960:68

20 Birna Lárusdóttir 2012:169

example the one which Sólveig abbess of Reynisstaðir monastery may have embroidered from multi-coloured wool yarn on white linen and marked with her name.²¹ The archaeologist Steinunn Sigurðardóttir says that linen was certainly imported but vaðmál was locally produced.²²

The archaeological excavation reports from Bessastaðir, Gásir, Reykholt and Hofstaðir do not mention linen or other vegetal fibers, nor seeds.

The textile museum in Blönduós has no textiles older than 18th century.²³

Place names

A few Icelandic place names contain the prefix lín²⁴ but it is unknown to what extent they actually point to the cultivation of flax, either because of their location (Líney for example is an island) or because of their geophysical properties (Línakradalur is boggy and not suited for flax cultivation). Still, local small scale production cannot be excluded.

Import of linen and hemp

Ships from England imported timber, foods, tar, wine, wax, needles, linen and a certain type of cloth called “Iselande”, “Island dozen” eða “pannus Yselondis” as for example in the import list of the ship James of Dunwich from 1545. The list also comprises butter, horse shoes, flour, wax, copper kettles and “linen of all kinds 220 ells & half and 5 Íslandsklæði”, all materials which could not be produced in Iceland.²⁵

Documents from the 17th century list imports of several types of linen from Holland, and from Westphalia, Sleswig and Danzig in Germany.²⁶

Fishing lines made from hemp were imported in the 17th century but people complained about their bad quality, short length and general uselessness.²⁷

21 Steinunn Kristjánsdóttir 2017:385

22 Steinunn Kristjánsdóttir 2017:252

23 Elín S. Sigurðardóttir, pers. communication

24 <https://www.lmi.is/landupplýsingar/ornefni/>

25 Gunnar Karlsson 2009:284

26 Jón J. Aðils 1919:454 ff.

27 Jón J. Aðils 1919:452

Skúli Magnússon, who, by order of the Danish king, implemented the so-called *Innréttingar* in order to modernize Icelandic agriculture, tried to cultivate hemp and flax but the traditional way to make fishing lines from *tog* and horsehair prevailed.²⁸

Conclusion

The available sources do not point to that hemp, flax or nettle for textile production were ever cultivated in Iceland but rather that linen was imported already during the earliest phases of the settlement around the 9th century. While Norwegian sources show that hemp was part of payments to the church and as attire fit for a reception at the king's court it is absent from Icelandic sources. Likewise nettle was probably not cultivated for textile production but it was grown in monasteries because of its medicinal properties.

Medieval embroidered pieces, mostly belonging to churches and monasteries such as Draflastaðir, Hólar, Gröf, Kálfafell, Skarð and others, have been labeled by museums and textile historians alike as embroidery on linen but the question is whether 'linen' was possibly a generic term for bast fibers because of their visual and tactile resemblance.

If flax had been cultivated in Iceland one would expect to find traces in the material history, lore, sagas or law books, since linen fabrics were a highly prized commodity. Its production was labour intensive and required land set apart but it created great value. Being a highly prized commodity it would certainly have been mentioned in documents. Sheep on the other hand, as producers of wool for almost all of the early Icelanders' clothing, bedding, sails, tablecloth etc, have left their traces in physical objects, oral and written history and laws.

The fact that I was unable to find literal sources or objects, which clearly name or pertain to flax cultivation leads to my conclusion that flax, hemp or nettle cultivation for textile production was not practised in Iceland during the viking and medieval ages, at least not as a major line of production.

28 Agnes Siggerður Arnórsdóttir (2008):8

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