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The Duality of Textiles

Reflecting Culture in the Viking Age from the Mundane to the Magical

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Ágrip

Vefnaður hefur verið mikilvægur hluti af mannlegu samfélagi í gegnum tíðina. Á víkingaöld skiptu vefnaðarvörur miklu máli, sérstaklega á Íslandi: Vefnaðarvörur voru notaðar sem gjaldmiðill af því að silfurpeningar voru ekki framleiddir á Íslandi á þessum tíma. Fyrstu lög á Íslandi tryggðu gæði vefnaðarins, en eins og sjá má í fornsögunum gæti það haft alvarlegar afleiðingar ef vefnaður stóðst ekki gæðaviðmið. Bæði Íslendingasögur og fornaldarsögur lýsa vefnaðarvörum og fötum og þau gegna hlutverki í framvindu sögunnar. Framleiðsla vefnaðarvaranna var fyrst og fremst verkefni kvenna: þetta verkefni (sérstaklega spuni) var líka tengt göldrum, yfirnáttúrulegum verum og hugmyndinni um örlög. Vefnaðarvörur endurspegla menningu víkingaaldar – bæði í fornleifum og í norrænum goðafræðum og göldrum.

Abstract

Textiles have been an integral part of human society since the knowledge of how to create thread from fiber developed. In the Age of the Vikings, textiles played a greater role than they do today. They acted as a form of currency, especially in Iceland where there was no metalic coinage production. For purposes of exchange the quality of cloth was written into Iceland's early laws, and failure to achieve these standards could have drastic consequences, as revealed in the sagas. Both the family sagas and the legendary sagas of Iceland use clothing and textiles within their narratives. Textiles are also inexorably linked to the roles of women, who historically have been the makers and weavers of textiles. Women and textiles have been tied to the use of magic, as well as to supernatural beings and the idea of fate. As a result, textiles reflect both the more concrete, mundane aspects of Viking culture, those that are left in archaeological finds, as well as the elements of mythology and magic more difficult to know and understand.

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Introduction

In the beginning, there was thread

From the time humans learned that fiber drawn from plants or animals could be spun into thread and then woven into fabric, these tasks of spinning and weaving developed into a foundation of civilization. They quite literally put shirts on our backs, mostly replacing animal skins that were less flexible in use, difficult to clean, challenging to sew, and dangerous to acquire. History is thus tied intricately to textiles, which in turn reflect the culture in which they were produced. The Viking Age is no exception. Examining how textiles create links within Viking Age culture falls within a niche within the broader academic field of Viking studies.

Clothing is as intrinsic to culture as is its language but, unfortunately, cloth does not preserve as well as writings. The study of cloth—and the larger area of textiles¹— becomes difficult because few ancient pieces survive, either through natural deterioration or through reuse in the relevant period.

Textiles played an integral role in the economics of the Golden Age of the Vikings. In Iceland they played an even stronger role because they doubled as currency, or $va\delta m \delta l^2$, functioning in place of silver. Textiles were traded over all of Europe and Scandinavia. As commodities; textiles could be transported with minimal risk of damage and lacked the perishability to which food, for example, is subject, or the fragility that risked breakage of other commodities.

Textiles provided shelter from the weather as well as clothing to cover humans. Next to nourishment it is the most vital requisite for human survival, such that its value can never diminish. The different varieties of cloth, as well as their methods of preparation, create myriad options geared toward different purposes. For example, Iceland's historic sheep (ancestors of modern Icelandic sheep) had coats with two layers of wool to protect against Iceland's biting winds. In the course of shearing or plucking, these layers could be separated to produce distinct styles of thread and yarn that Viking women spun and wove in unique, clever ways to produce important fabrics without which the Viking age as it came to be known would never have occurred.

¹ Textiles are made from interlacing fibers, which can include carpets and tapestries, and thus capture a broader spectrum than does the term "cloth."

² See chapter 3 for full discussion.

Stories and legends surrounding textile production, from spinning to weaving, have been imbued with magic and myth. Indeed, the association of the Nornir from Norse Mythology with spinning fate of mortals has become so ingrained even in the modern conscious that it inhabits almost any internet website offering information on Norse mythology³. The pit-houses where women of the Viking age are believed to have created textiles were associated with the generation of human life itself—only women used these hutlike structures while men were barred from entering. This magic surrounding textiles and their making also linked with the magic of women, who more closely connected the concepts of life, death, and fate than did their male counterparts⁴.

The Icelandic sagas, our prime literary source for both Viking and early medieval Icelandic culture, depict many instances of textiles used either for mundane purposes or for magic. The most famous comes from *Njál's saga*, in the poem *Darraðarljoð*, in which a man supposedly ventures into a pit-house and witnesses Valkyries performing both magic and weaving. The sagas linked cloth not only to magic, but employed clothing to signify a character's rank and station, sometimes even providing visual signals that the character's circumstances were about to change. Both the legendary sagas and the stories of the families of Iceland provide diverse examples of the functions served by textiles.

1.1 Historical Background

One can view history through the progression of clothing worn by historical actors. Clothing can reveal much about a culture and its needs. Looking closely at clothing is to look at textiles from which it is made; such textiles have wide ranges of use beyond clothing. And looking beyond that, the threads from which textiles are created have the widest range of all. Examining the importance of textiles in the Viking and early medieval ages is thus an important step in the process of historical study of those eras.

Even so, the study of textiles is not commonly discussed within the larger scope of academia. Modern students only now begin to understand its relevancy. But whereas sources, studies, and general academic discussion are prevalent and

³ https://skjalden.com/norns/ is one such place mentioning Norns weaving.

⁴ See section 4 for full discussion.

forthcoming in other areas of historical study, academic sources addressing textiles must be unearthed. Discussion of textiles and clothing in relation to the understanding of history is not so much limited as it is buried. A glance at the larger sources in historical academia suggests that discussion of the history of textiles occupies only a minute portion. But a more discerning examination reveals that the field is larger and more nuanced than might otherwise be suspected.

In this regard, the author's practical knowledge in the use of textiles enhances the understanding of clothing and its practical importance. A hands-on approach to this study highlights the complexity and the details that render historical methods admirable. Until one attempts and confronts the intricacies of creating textiles and clothing, such tasks can appear misleadingly simple and lacking in complex technique. Experience with different forms of textile construction has informed this discussion of and research into textile production. Attempting ancient techniques that, for example, archaeologists have documented in gravesites generates respect for the ancient crafters.

People in the Viking age had neither the time nor the patience for techniques that did not work. Clothing was sewn in certain ways *because* they worked, not because artisans liked a random detail that added neither a function nor a decorative element.⁵ The methods of construction, while evolved over ages, nonetheless follow a rational approach. Practical interest in such applied techniques permits one to see that they were once heavily ingrained in culture and were necessities, not luxuries.

1.2 Relevant Academic Discussions

The content of this thesis falls within a few existing categories for academic discussion. In discussing the roles of textiles and their production we also look at the people who weaved. Examining how women lived through history has become a much larger topic in recent years, alongside the application of gender studies to history.

The study of women's lives in the Viking age is a growing field and reflects modern examination of traditional gender roles as opposed to the concept of social

⁵ Decorations and additions to historical clothing is an entire subject unto itself, but suffice to say that the wealthier could afford the time and materials to add more ornamentation to their garments, while the less well-off did not.

constructs, nature versus nurture.⁶ With the further understanding of Viking society, Viking age women were thought to have had more freedoms than their European counterparts; popular culture firmly embraced that idea. Viking shieldmaidens, for example, are currently viewed as having acted as an elite female fighting force⁷ and rank second only to the Amazon warriors in their popularity. Such discussions of women during these eras exploded when several human bodies from archeological sites were reidentified as female rather than male, as originally thought. Since then, a great number of female burials have been found and the legend of the shieldmaiden has grown. Examination of bones at such sites has revealed what may have been battle-inflicted wounds either healing at the time of death or believed to have been the cause of death. The younger woman buried in the Oseberg grave, for example, shows signs of a healing collarbone.⁸

While the evidence of women in the Viking world involved at least to some degree in combat is irrefutable, there remains the matter of home life. In this regard, the University of Copenhagen administers a center devoted to textile research, with scholars like Marie Louise Bech Norch⁹ offering many articles of historical discovery and examination. The research center offers many discussions in the world of textile history, from reconstructing Egyptian textiles to finetuning the terminology used with furs and leathers.¹⁰

Archaeologists like Michèle Hayeur Smith form part of the current discussion of women and what remains as their legacy. Her work ties in closely with the study of dress history and the study of cloth.¹¹

⁶ Examining the works of Judith Butler, especially *Gender Trouble* will help shed light on the beginnings of the discussion of gender and the social role it plays.

⁷ Birgit Sawyer's *Women in Viking-Age Scandinavia, or, who were the 'shieldmaidens'*? would offer a more in depth discussion.

⁸ Per Holck, *The Oseberg Ship Burial, Norway: New Thoughts on the Skeletons From the Grave Mound,* (European Journal of Archaeology, 2006).

⁹ The majority of her work focuses on Iron Age textiles as well as in the Mediterranean geography.

¹⁰ "Research Programmes, Projects and Networks," Centre for Textile Research, 2021, https://ctr.hum.ku.dk/research-programmes-and-projects/.

¹¹ Hayeur Smith's work, *Textiles, Wool, and Hair in Reykholt* would be excellent future examination.

Fashion history, or dress history, analyses and interprets clothing and appearance from their earliest records to modern day. Dress history incudes a heavy element of recreation because, unfortunately, textiles do not survive great measures of time, so the clothing that has survived is in poor shape or in mere fragments. Dress history attempts to understand the clothing of the past and interpret why clothing evolved as it did. Modern academics—as well as the population at large—have largely forgotten the techniques needed for sewing and clothing construction, while the study of dress history attempts in part to uncover and preserve them. Scholars such as Bertha Banner and Agnes Walker are highly respected in modern dress historian circles with their respective books, *Household Sewing with Home Dressmaking-Primary source* and *Manual of Needlework and Cutting Out*. The field of dress history slowly grows, with several universities now offering degrees in the study of historical garments and their social connotations.

1.3 Theory of Textiles

Do textiles accurately reflect the Viking lifestyle? Are textiles accurate in their representation of the duality of Viking society, both the aspects that supported by literature and archaeology as well as the more muddled conventions of magic and myth? And are textiles part of what hold together all these elements of Viking Age society?

Answers to these questions are not aided by the relative dearth of written and archaeological evidence about the Vikings compared to other eras and places in history. Historians and archaeologists must examine minute details of what has been preserved to piece together a picture of society in the Viking age. Clothing and other textiles have predominantly been viewed as a way to see what the Vikings looked like—what their embroidery techniques were—essentially as visuals. Their textile work, however, reflected far more.

There remains much to learn through examination of textiles and the methods and attitudes surrounding them. Books like *The Valkyries' Loom* offer the most recent literature to discuss cloth in connection with both the role of women as well as the larger Viking economy.¹² Every culture makes cloth¹³ so it stands to reason that cloth and its production would reflect the culture that produced it.¹⁴

The link between the material world and the world of myth and magic have gone through constant scrutiny, but the mechanism of the link—*how* it connects the two—seems to fall between the cracks.

Through necessity or chance, the connection between fabric and society reflects changing times. Clothing historians track how the trends in clothing have changed with certain ideas and cultural movements. More than other, subtle indicia, clothing represents social status and group identity. People wear clothes every day; clothes are not an afterthought but an integral part of human society.¹⁵ Viking society is no exception.

In this regard, medieval lifestyles were not 'simpler' than modern lifestyles. Rather, their focus was on different aspects of life. So many facets of life have changed, such as the explosion of technology and the widespread, almost frenzied focus on academic achievement. An average person living in the 21st century does not need to plan to survive the impending winter; by contrast, the average 10th century person did not have to worry about attending university in order to obtain financial independence and freedom. Concerns fundamentally differed.

The research in this thesis seeks to promote further understanding of the connection of textiles to their societies in the specific context of the Viking age. Textiles are difficult to study because the conditions for their survival are very specific.¹⁶ Archaeologists discuss how finding even an inch of textile to study is exciting. That is why attention has been drawn to the new finds at the mountain pass at

¹⁴ Eva Andersson Strand's *Old Textiles, New Possibilities* offers more examination of the representation of society in its textile tools.

¹² Michèle M Hayeur Smith, The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic (Gainesville, FL: University Press of Florida, 2020).

¹³ The works of Eva Andersson Strand, such as Archaeology, culture and clothing. Society and culture, two faces of the same ethnic coin would be informative.

¹⁵ Johnson, Lennon, and Rudd's *Dress, body and self: research in the social psychology of dress* (2014) offers further discussion.

¹⁶ Timár-Balázsy Ágnes, and Dinah Eastop's *Chemical Principles of Textile Conservation* offers further discussion on the chemical elements of textile survival.

Lendbreen in Norway, which contain sizable amounts of fabric dated to over a thousand years old.¹⁷

Textiles are among the most difficult artifacts to preserve. As a result, what textiles are discovered are treasured and protected. The six tapestries making up the series of 'The Lady and the Unicorn' has been repaired multiple times even though its conditions over the centuries had remained reasonably stable¹⁸. Remains of textiles at the Oseberg Ship Museum are kept in a darkened room, limiting the light that would fade the old and fragile dye. Examining textiles can thus both dishearten and excite.

Textiles fill a quieter part of history than do battles and conquest, but they appear everywhere throughout time. There may be a lull in boarder disputes, but people still must clothe themselves. When we use phrases like 'woven into the fabric of our culture', we illustrate how important the study of textiles is and how it should garner more attention.

1.4 Terminology of Note

There has been much discussion and debate about whether the term 'Viking' correctly references the people of Scandinavia (and later Iceland and Greenland) between the end of the 8th century and the early 11th century. Indeed even the periods mentioned are filled with contention.

The term comes originally from the Old Norse *vikingr* as a verb, not a noun; one would go *vikingr*. To go *vikingr* was to go on an expedition at sea, normally as a privateer—a pirate but with support of one's lord. Modern usage of the word 'Viking' conjures instantly an image of a bearded man in a horned helmet. While the usage has been constantly debated, for the purposes of this thesis, it will be used to denote the peoples from areas that are modern day Denmark, Norway, Sweden, Iceland, and Greenland, between approximately 793, and 1050 A.D. This is generally accepted as

¹⁷ https://secretsoftheice.com/news/2020/04/16/mountain-pass/ offers a more comprehensive look at the discoveries.

¹⁸ Dr Elisabeth Taburet-Delahaye's lecture, *The Lady & The Unicorn Lecture*, offers a more in depth discussion of the damage and repair of these tapestries, as well as an excellent example of preservation of old textiles.

the 'Golden Age of the Vikings', beginning with the raid in Northumberland on the monastery of Lindisfarne and ending sometime after the Icelandic conversion to Christianity in the year 1000 A.D.

While using the terms 'Norse peoples' and 'early Scandinavians' might be appropriate from a historical perspective, this discussion uses 'Viking' instead because of the modern understanding of that identity. The connotations surrounding 'Vikings' heavily associates them with their early years of pillaging and plundering¹⁹ and far more. Popular culture has frozen the image of 'the Viking' in modern minds and provides a useful common reference point.

In referring to the final product of spinning, this discussion wil lnormally use the term 'thread' rather than 'yarn'. There is very little difference between the terms, but the discussion generally refers to a thinner spun fiber intended to be woven into cloth. By contrast, 'yarn' tends to conjure an image of a thicker, wooly spun fiber used for knitting bulky garments. Though many academic sources elect to use 'yarn' over 'thread', it is an active choice for this thesis to refer instead to 'threads'.

¹⁹ A better understanding can be garnered from *Attitudes Towards the Vikings* by Peter and Birgit Sawyer.

Chapter 1

Method and Background Information about Textiles

Textiles literally and figuratively hold a society together. But in order to understand the impact of textiles, one must understand the process through which raw materials must go to prepare them to take their final textile form.²⁰ There have been inventions in the production process, but the basic methods examined here remain in use today by modern craftswomen who choose to handwork the process of textile production.

2.1 Textile Production Process

This discussion focuses primarily on wool, but other textiles such as linen or silk also played important parts. Each raw material requires a slightly different method to be turned into threads to make a textile.

Arguably, wool is the most fascinating of all the historical textiles. Its variety in quality and use render it unique. No other textile can be worn by both kings and peasants and offers such a variety of qualities and textures. Some forms of wool can be so smooth and soft that they could better resemble velvet or soft leather.

2.2 Raw Materials

Sheep are the most popular suppliers of wool, and the variety of wool types on one animal make it possible to have a variety of distinct qualities of wool. There are two major components to a sheep's coat. Historic Icelandic sheep²¹ have an outer coat, the *tóg*, which is coarse and possesses medullas. A medulla is a hollow space in the outer hair and helps to retain heat by way of insulation. And from a crafter's standpoint, that hollow part of the fiber (unlike the hair on humans or on dogs) holds dye better than the undercoat, the *bell*, which is softer and lacks the characteristic

²⁰ Eva Andersson Strand's book, *Tools for Textile Production—from Birka and Hedeby* offer further discussion of the relation between culture and textiles, and how that is seen in the finds at the two sites.

²¹ Modern Icelandic sheep differ little from their ancestors, but it should be notes that there were differences. Additionally, modern Icelandic sheep resemble those used by the Viking-Age Scandinavians. The discussion of specifically Icelandic sheep is to reiterate the point that Iceland offers the best look at Viking-Age Scandinavian practices as it was slower follow the latest trends from Europe, and many of the elements were preserved due to isolation.

prickly feature of the $t \circ g$.²² The Vikings²³ were unique for spinning the $t \circ g$ and the *pell* into separate threads. This may have been a purely stylistic choice, but more likely the coarser and stronger $t \circ g$ was better suited for the tension on a warp weighted loom. When using the much softer *pell* as the weft thread, woven cloth would naturally tighten and felt (raising napped, "fuzzy" fibers on the surface) and thereby create a more wind resistant textile.²⁴

Wool, of course, is not produced exclusively by sheep. It can come from goats, rabbits, camels, and other mammals. Wool is the most adaptable natural material for textile production. As a cloth, it is not flammable but instead merely smolders, making it ideal for working near fires and sparks. When wet, wool does not sap warmth from the wearer, as cotton and other fibers do, making wool ideal for traveling garments that need to remain warm in damp weather. Wool can be spun and woven fine and lightweight, well suiting it to excessive heat—though the Vikings only rarely were concerned about being too warm. The outer layers (the $t \circ g$) of the sheep were most commonly used for materials that had more contact with the elements, while the softer under layer (the *pell*), because it is less abrasive, was more generally used for contact closer to the skin. Wool carries a reputation for a texture scratchy and coarse, but that reputation is only partially correct as much wool is soft and luxurious. The versatility of wool renders it among the most valuable of the textiles.

Before such fine wools can be used and valued, they must be prepared from raw wool. To do so, the fibers are first washed and then combed through a carding comb, which has large sharp, offset, metal teeth designed to align the fibers. In washing, it remains common practice to not fully remove the natural oil, called lanolin, from the *bell* because this lanolin serves to create a water-resistant barrier that protected the sheep that had produced it. By leaving the lanolin in the raw material, the textile retains a natural imperviousness to water, such that the textile would not become soggy when

²² Michèle M Hayeur Smith, The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic (Gainesville, FL: University Press of Florida, 2020), 33.

²³ Though it is Icelandic sheep mentioned, the practice was carried out across all of modern day Scandinavia, but Iceland has remained famous for its wool.

²⁴ Michèle M Hayeur Smith, The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic (Gainesville, FL: University Press of Florida, 2020), 34.

splashed. This explains why wool remains popular for fishermen's sweaters and why such wool retains a residue of the sheep's natural odor. Entirely clean wool, by contrast, does not smell of the animal whence it came. For producing cloaks, sails, and other gear intended to face a harsh climate, the preparer of the raw wool would leave in as much lanolin as possible.

2.3 Tools of Production

Once cleaned, the raw wool must be spun into thread. The first tool used in the spinning process²⁵ is the distaff, which holds the raw wool as it is being spun. A distaff is between 1 and 3 feet long, and has one fat or wide end for the wool. Traditional distaffs have a split section about 2/3 of the way up from the wide end, and the split section widens and then narrows again, creating a cage-like structure around which the raw wool is wrapped. This change in diameter prevents the wool from slipping off the distaff in either direction. To use the distaff, once the wool is clean and aligned (or carded), the wool will be loosely bundled in a way similar to wool batting often used in modern days for stuffing or quilting. Next the preparer rolls the distaff, then ties the wool with a bit of cord. At this point the wool is ready to be pulled from the bundle to be spun into threads. The preparer pulls fibers from the bottom of the wool bundle and twists them to form a thread, which will then be attached to a spindle.

Distaffs of this sort appear to have been used throughout the Viking age. Among other remarkable finds in Norway, a distaff was recovered from a melted glacier. Now known as the Lendbreen Distaff, named for the mountain pass in which it was found and dated to the ninth century, this distaff has gained notoriety.²⁶ The Lendbreen distaff is 27 inches long, and tapers from one wide end to a point at the other. The length is interrupted by two carved rings, one halfway up and the second closer to the wide end.

²⁵ Oye Ingvild's Tracing Textile Production from the Viking Age to the Middle Ages: Tools, Textiles, Texts and Contexts offers further discussion of Viking Age tools found.

²⁶ Pilø, Lars, Espen Finstad, and James H. Barrett, Crossing the Ice: an Iron Age to Medieval Mountain Pass at Lendbreen, Norway, (Antiquity 94, 2020).

Returning to the preparation of wool, the next important tool employs the drop spindle,²⁷ a tapered wooden rod with a hook at the top and less than 12 inches in length. A drop spindle must be weighted or it will not spin, for it is the spinning motion that creates the thread. The weight is provided by a circular device called a whorl, which can be attached either at the top of the spindle, creating a 'top-whorl spindle', or at the bottom, called a 'bottom-whorl spindle'. Whorls are commonly made from stone, pottery, or glass. The weight of the whorl and size of the spindle vary based on the desired weight of the thread to be created. The preparer draws out a section of wool from the distaff, attaches the wool to the spindle, and spins it, with the weight of the whorl along with the spinning motion pulling the loose wool fibers into one continuous thread as the preparer's free hand continues to pull evenly at the bundle of loose wool. The drop spindle can be spun in either clockwise or counter-clockwise (known as Z spun or S spun, respectively). As the thread becomes longer, the preparer wraps it around the spindle and the spinning and wrapping process repeats.

The distaff can be tucked under the preparer's arm or in a belt, and the drop spindle can be employed in a variety of locations, even while walking. This mobility freed women—the usual preparers of wool—from fixed locations and allowed them to easily move about and divide their focus on other tasks, such as child care, cooking, or simply tending to the fire. With the hands kept busy and muscle memory engaged, a preparer's mind was left free for other tasks, extending to the foundations of civilized life that include discussion of issues or tasks of the day, storytelling, and conveyance of news. Socializing while working thus creates important bonds, and such communication and interaction was vital in a village society.²⁸

In the 14th century a major change came to the textile world with the invention of the spinning wheel. It could spin far faster than a drop spindle. A trained spinner on a wheel could produce more than 2,000 yards of thread in ten hours (around three yards per minute); because a drop spindle is limited to the distance between the floor and the spinner's hands, the spinning process was far slower.²⁹ Still, the spinning wheel was not

²⁷ Abby Franquemont and Anne Merrow's *Respect the Spindle: Spin Infinite Yarns with One Amazing Tool* offers further discussion of the drop spindle.

²⁸ Robin Netherton and Gale R. Owen-Crocker, *Medieval Clothing and Textiles* 4 (Woodbridge: Boydell & Brewer, 2008), 7.

²⁹ Aron, Spindle vs. wheels, (January 1, 1970).

portable, fixing the spinner to a particular spot, while the drop spindle retained its mobility, such that the drop spindle remained in common if somewhat diminished use.

In this regard, an examination of pre-revolutionary (pre-Soviet) Russia has revealed that the peasant class had been reluctant to switch to the spinning wheel and often continued to use the drop spindle. To begin with, the cost of a spinning wheel was high, meaning families surviving on subsistence farming often treated it as a luxury that they could not afford. The spinning wheel also required greater skill and dexterity, limiting its usage to young to middle-aged women, meaning that children and older women could not spin on a wheel. Children could not because it took longer to train them on a wheel than with a drop spindle, and older women could not because they had lost the nimbleness to match the pace of the spinning wheel. Because the spinning wheel was not easily portable, the spinner was limiting to one job rather than the multitasking previously mentioned commonly associated with the drop spindle. The final difficulty that the spinning wheel presented to these Russian peasants was the mental concentration that working a spinning wheel required, leaving little room for the interaction with family and neighbors needed to ground a village society.

That this example of the isolating, anti-social impact of the more mechanized spinning wheel appears centuries after its invention implies that the attitudes towards the spinning wheel would have been similar, or perhaps greater, when it was first introduced. While new inventions typically have been viewed as progression and improvements on earlier systems, but do not necessarily represent good or desired changes. Because people have spent more time spinning on drop spindles than on any mechanized spinning tool and have become efficient in use of the drop spindle, and because of its personal flexibility and social impact, neither the spinning wheel nor any more mechanized process has ever eradicated the drop spindle.

Again returning to the preparation process, after threads where spun they could be dyed. Until the 1850s, plant-based dyes were the sole form of dye. Dyes could be extracted from rocks and earth, or from plants. The curious use of stale urine, rich in ammonia, was vital in achieving and fixing bright colors. Reds and yellows were the most common colors because they could be found in the earth, while blue (especially dark blue) was difficult and often expensive to achieve. Green was seldom used as it took twice as much dye to make, using both blue and yellow dye. Colored patterns

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could be woven with differently colored threads, but whole lengths of cloth could also be dyed for a solid color. Generally, however, dye was administered before weaving commenced.

Once threads had been spun on a drop spindle and then dyed, textile production commenced. Handwork by crochet and knitting were popular in the Viking age-and remain so today-for knitwear, gloves, and hats. But weaving continues to take center stage as the most popular form of textile production even as it was during the Viking age. Present since the Neolithic era, the warp weighted loom was used during the Viking age³⁰ and was replaced with the horizontal loom only in the 11th and 12th centuries.³¹ With a warp weighted loom³², a round weight—called a loom weight provides tension to the individual vertical warp threads.³³ A bundle of warp threads are tied around the loom weight, allowing for the excess length of warp thread to be gathered. The loom, leaned against the wall, has a horizontal bar at the top to which the other end of the warp is attached. As fabric is woven the bar can be turned and held in place. This process stores the fabric, leaves space open for weaving, and maintains tension. The warp threads are separated alternately 34 to form such a space, called the shed, through which the horizontal weft thread may be passed on a shuttle. The shuttle, which holds all the weft threads, passes though the shed and is then pressed and beaten upward with a weaving comb and a weaving sword. The warp threads are then alternated, opening up the shed and locking the previous warp thread in place.

During the Viking age a popular form of weave was twill. A twill pattern occurs when the horizontal weft thread passes over not one but two vertical warp threads, and then returns, offset by one thread, catching only one of the two threads that had been passed over. This creates a diagonal pattern. Twill patterns varied. For example,

³⁰ Eric Broudy's The Book of Looms: A History of the Handloom from Ancient Times to the Present offers further discussion

³¹ Though the horizontal loom had existed for much longer in places like Egypt, it did not come to Scandinavia until around the 11th century, and even later to Iceland.

³² See Weaving: Conversion of Yarn to Fabric for further discussion of looms, textile production as well as the aspects of weaving.

³³ Eva Andersson Strand's article, *Shape of things. Understanding a Loom Weight* offers more insight onto the discussion of the varieties of loom weights, and what they can help to tell us more about the variety of textile production.

 ³⁴ Depending on the weave the threads could be alternated, or even in an 'over 1, under
2'. There were many patterns and repetitions that could be used to create different effects.

passing over two threads and then under two was called '2/2 twill'; passing over two and under was called '2/1'. Differences in the direction of the thread twist and the twill patten can be used to date a cloth, especially as a 2/1 twill was virtually unknown in the early part of the Viking age and 2/2 twill with a Z-spun warp and S-spun weft were popular over all of Scandinavia.

Another unique element about Viking era was dying the warp threads blue, while the weft threads were left undyed, giving the final product a striking diagonal blue pattern. The different twills also gave the signature 'chevron' and 'diamond' twill heavily associated with the Vikings.³⁵

2.4 The Uses of Textiles

Primarily we associate textiles with clothing, but their functions were not limited to garments.^{36,37} Textiles were used for basic bedding and curtains to windows and doors. Vikings also waxed and oiled cloth to prevent water and air from seeping in and then used such cloth for tents.

Perhaps their least expected use for textiles was in warfare. Current reconstructionist historians theorize that the archetypal Viking round shield included as a cover two layers of leather or a natural fiber, believed to be linen or wool, adding strength to the shield. A shield is made from planks of wood, with the center grip and the rawhide edge of the shield serving to hold the planks together. Before the rawhide is attached, leather or linen could be attached to both sides with a glue made from hide, serving to strengthen the shield and ease its repair. The added layer gave a flexible structure to the wood and prevented the shield from shattering under pressure. When used in combat, the covering also created resistance to both the entry and exit of a blade into and from the shield, meaning that it created an opportunity embed and entrap an opponent's weapon, possibly breaking it. Moreover, a damaged shield could be repaired and made combat ready again with a mere patch and a fresh section of rawhide

³⁵ Thor Ewing, *Viking Clothing* (Gloucestershire: The History Press, 2012), 143.

³⁶ Robin Netherton and Gale R. Owen-Crocker's *Medieval Clothing and Textiles 11* offers more discussion on the roles textiles can play.

³⁷ Virginia Postrel's *Fabric of Civilization: How Textiles Made the World* offers further discussion.

over the damaged area.³⁸ Experiments by *Hurstwic*³⁹ have shown that a shield with an added layer of leather, linen, or wool, stands up better to heavy blows than an uncovered shield would, noting that after only two strong hits, an uncovered shield would split, while a covered shield would stay together after five hits of the same strength.⁴⁰ Reproductions of Viking age shields consistently use such a facing to add strength because from a practical standpoint it makes the shield resilient and reduces the need for repair and replacement.⁴¹

While leather⁴² often has been found to have covered shields, linen provided a cheaper but equally effective substitute. An artifact from the Swedish History Museum in Stockholm was recovered in Gotland, dating from the Germanic Iron Age (400-800 A.D.); it includes a shield-boss with a textile embedded *underneath* it, meaning the textile was part of the shield. Such shields were direct ancestors of the archetypal Viking shield and it appears likely that the Vikings used this same technique.⁴³

The most iconic use of textiles by the Vikings were the sails for their ships. The Viking ship itself was a marvel in seafaring technology, but its sail embodied a similar if lesser-known genius. The iconic image presents a single huge sail, often depicted with vertical red and white stripes. The sail was made of wool, which may seem an odd choice because wool is associated with growing heavy when wet and its weave

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Hurstwic

article:

³⁸ Examining the book, *Men of Terror: A Comprehensive analysis of Viking Combat*, by William R. Short, the manager of Hurstwic, would offer a more comprehensive analysis.

³⁹ "Viking History Table of Contents," Hurstwic, accessed December 31, 2021, http://www.hurstwic.com/history/text/history.htm.

http://www.hurstwic.org/history/articles/manufacturing/text/viking_shields.htm
⁴¹ The topic of Viking shields and their construction deserves further research and discussion than I am able to offer here in this thesis. Experimental archaeologists, such as Hurstwic, are doing a fantastic job of examining parts of Viking life and literature in a way previously unexplored in academic history.

⁴² Eva Andersson Strand's article, *Invisible handicrafts, the general picture of textile and skin crafts in Scandinavian surveys* offers more on the discussion of skin preparation.

⁴³ Rolf Warming, "CombatArchaeology.org," *CombatArchaeology.org* (blog) (Society for Combat Archaeology, 2018), https://combatarchaeology.org/was-linen-ortextile-used-for-viking-shields-new-perspectives-on-round-shield-constructions/.

normally creates tiny holes through which wind would pass easily.⁴⁴ But the Vikings developed a solution. As previously mentioned, lanolin in sheep wool was naturally water repellant⁴⁵ and, when weaving, the weavers guided the warp threads in a clockwise twist and the weft threads with a counter-clockwise twist. The warp threads were coarser and the weft threads had been spun more loosely, helping them to felt in a tight weave into the warp threads. The opposite directions of the twists of the threads caused them to twist into each other, enhancing the tightness of the weave and creating a functionally windproof final product.⁴⁶ This solution produced fabric for a sail that repelled water, thereby remaining light and dry, and fully captured the wind. In so doing, this unique sail made it possible for the Vikings to explore the world.

2.5 "Fashion is the Mirror of History" (King Louis XIV)

For centuries clothing has served as a visual symbol of social status. Many debate when 'fashion' as a concept began because debate also addresses what 'fashion' truly is. To distinguish between fashion as distinct from mere functional clothing, different levels of consideration apply. Fashion can refer narrowly to a specific person's claim to creative design over a garment making a particular aesthetic statement, but can also refer more broadly to the latest societal styles in garments. In the narrow sense, it was not until the 19th century that a garment maker—Charles Frederick Worth—put labels in his products, marking them as his creations embodying his standards. In the broader sense—the sense primarily addressed here—fashion tended to depend upon the availability and affordability of particular textiles; the more affordable a cloth was, the more variation and evolution clothing could have.

Before the mass industrial production of recent history dramatically lowered costs of production, fabric had been valued enormously.⁴⁷ Even when it was more easily afforded it was not wasted. Every square inch of fabric was used in clothing

⁴⁴ St. Clair, Kassia, Golden Thread: How Fabric Changed History, (Liveright Publishing Corp, 2018), 107.

⁴⁵ Ibid, 108.

⁴⁶ Ibid, 109.

⁴⁷ The discussion of Fast Fashion is slowly becoming more prevalent as information about the harm it causes to workers, with low wages and grueling work hours, and with damage to the planet, with clothing adding heavily to the world's landfills.

production. Seam allowances were small and if a pattern piece was too large for a section of fabric, then smaller sections of fabric would be sewn together in order to provide enough fabric for the piece. Patterned fabrics were not carefully aligned along seams to continue the pattern because such a process would waste fabric—something not even a king would do, as surviving garments show odd seams and unmatched patterns even in royal wardrobes. The value of the cloth itself sometimes outvalued the resulting garment and a garment that wasted fabric offended any competent tailor. Excessive use of fabric in garments marked great wealth and displaying it conspicuously compares to driving a Ferrari today.

In this regard, the Icelandic sagas describe a fabric that was especially luxurious but not overly discussed—scarlet. The term did not refer to a color of fabric but to its manufacturing technique. Scarlet was a woolen cloth that was finely finished, with its surface shorn up to four times in order to leave no trace of the weave visible on the cloth. This was an extensive process and added considerable value to the finished cloth.⁴⁸ Cloth production was already an extensive process, as previously discussed, and any additional step to add such value would have been a multi-day process for the maker.

⁴⁸ Jane Christine Roscoe, The literary significance of clothing in the Icelandic family sagas (Durham University, 1992), 19. Additionally, examining Anita Sauckel's Die literarische Funktion von Kleidung in den Isländersagas und Íslendingaþættir. Ergänzungsbände zum Reallexikon der Germanischen Altertumskunde 83 (2014) would add further information beyond this section.

Chapter 2

Existents and Economics

Historians have discussed textiles little in connection with the Viking age and later medieval economies.⁴⁹ Textiles were more than just precious commodities, as nations could be ruined without the ability to import and export textiles.

3.1 Contributions to the Economy

Since time out of memory silver⁵⁰ and gold have been used for currency, while food is vital in order to survive. But food spoils and silver cannot warm a person. Textiles, by contrast, developed into one of the few commodities that became forms of currency themselves. Cloth was both a finished material and a raw good, and it could be readily transported.⁵¹ Cloth is used all over the world and in every culture. Few can survive without it. Textiles imply not only clothing but shelter from the cold or from the heat. Cloth does not spoil as food does. Cloth maintains practical value even if silver and gold depreciate. Silver and gold have always had a place in global societies,⁵² but at times they have become almost obsolete. In Western Europe at the end of the 8th century, for example, wealth was quantified by the amount of land a man owned, not by the weight of his purse. In places like Iceland where there was no production of coins other means of wealth were used.⁵³ People have always needed cloth.

⁴⁹ Heidi M. Sherman's *The Flax and Linen of Medieval Novgorod* offers more discussion on textiles in a later medieval economy.

⁵⁰ Jane Kershaw's and Stephen W. Merkel's Silver Recycling in the Viking Age: Theoretical and Analytical Approaches offers further discussion of silver in the medieval Scandinavian world. As well as Jane Kershaw's An Early Medieval Dual-Currency Economy: Bullion and Coin in the Danelaw offers further discussion of silver in the Viking Age.

⁵¹ Michèle M Hayeur Smith, The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic (Gainesville, FL: University Press of Florida, 2020), 68.

⁵² Jane F. Kershaw's Silver, Butter, Cloth: Monetary and Social Economies in the Viking Age offers further discussion on Viking economics concerning silver and textiles.

⁵³ See Textiles and the Medieval Economy Production, Trade, and Consumption of Textiles, 8th-16th Centuries for further discussion.

3.2 Laws in the Viking Era: Grágás and Vaðmál

In Iceland cloth was used as legal currency.⁵⁴ This cloth was called *vaðmál*. Some argue that the use of cloth as currency in Iceland derived from Norway. More likely, however, the use of cloth currency resulted from an inadequate supply of coinage to support the growing Icelandic economy⁵⁵. Cloth had a recognized worth in silver and therefore could be used reliably for trade without bartering. Cloth production, especially production of *vaðmál*, was the most important industry in Iceland between 930 A.D. and 1262 A.D. during the common wealth period. Other commodities joined cloth in affording established equivalent prices; cows, butter, or grain also held fixed values.⁵⁶ The prudence in using a commodity like cloth and similar commodities sharing minimal perishability and important functions derives from their maintained value, even when silver is substantially removed from the economic equation. Using cloth in this way thereby fostered a stable economy.

Still, not any Icelandic cloth could be considered *vaðmál*. According to the law codes, *Grágás*,⁵⁷ *vaðmál* was evaluated for quality, meaning the weaving could not be so loose that more than one ell (about 19 inches) was lost in a 20-ell piece.⁵⁸ And *vaðmál* was to be as wide as double the width of the forearm breadth with fingers extended. A sale using *vaðmál* was to have two witnesses to judge if the *vaðmál* was slack in its selvage (meaning fewer threads were used to weave it) or narrow in width (also fewer threads, as well as less final product). Severe punishments applied to trading with cloth that failed to meet the standards. We see this in *Ljósvetninga saga*,⁵⁹ where the farmer Thorir trades a few woven cloaks for the goods of the merchant Helgi,

⁵⁴ Jesse Byock's Viking Age Iceland offers further exploration of Viking Age laws and general information about the law courts.

⁵⁵ Examining the works of Dagfinn Skre, *Means of Exchange, Viking-Age Economic Transformations*, and *Money and Trade in Viking-Age Scandinavia* would provide a much more in-depth perspective beyond what is included in this thesis.

⁵⁶ Michèle M Hayeur Smith , The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic (Gainesville, FL: University Press of Florida, 2020), 55.

⁵⁷ A good translation to examine would be from Peter Foote, who was greatly respected for his translation works.

⁵⁸ Michèle M Hayeur Smith, The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic (Gainesville, FL: University Press of Florida, 2020), 56.

⁵⁹ Valdimar Ásmundarson, *Ljósvetninga Saga*, (Reykjavík: S. Kristjánsson, 1896).

but Helgi, upon finding that Thorir swindled him with damaged cloaks, accuses Thorir of fraud. Thorir suffers banishment for his deception.⁶⁰

This saga's events reflect the value and importance placed around the quality of cloth, especially as a method of payment. *Vaðmál* required two witnesses to gage the quality during trading. That there were no witnesses to the exchange between Helgi and Thorir and their disastrous end illustrated the need for legal witness for a transaction of this nature.

The heavy societal pressure for fair dealing appears to resulted in a unique feature of *vaðmál*—the consistency of its weave. At nearly every medieval site where *vaðmál* has been found, the 2/2 twills (as described in section 1) outnumbered every other type of weave.⁶¹ Before it became legal currency, *vaðmál* was beginning to dominate textile production in the age of the Vikings and well into the medieval period.⁶²

3.3 What Has Been Left Behind: Archaeological Finds

Available textile artifacts come almost exclusively from gravesites.⁶³ A difficulty with reliance upon archaeological sources for textile history is that textiles do not age well and their remains deteriorate.⁶⁴ Also there might have been very little cloth left to deteriorate after it was used extensively. Cloth was not wasted, so it often did not survive long enough to be left to be found centuries later. Cloth was used, mended, and reused until it practically disintegrated.⁶⁵ In Iceland's midden deposits, the cloth that has been found shows unmistakable signs of wear, darning, and other mending and

⁶⁰ Michèle M Hayeur Smith, The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic (Gainesville, FL: University Press of Florida, 2020), 58.

⁶¹ Ibid, 62.

⁶² Ibid, 65.

⁶³ Jeannette J. Łucejko, Marianne Vedeler, and Ilaria Degano's "Textile Dyes from Gokstad Viking Ship's Grave" offers more discussion and evidence of the textiles found in gravesites.

⁶⁴ Isabella C. von Holstein's Provenancing Archaeological Wool Textiles from Medieval Northern Europe by Light Stable Isotope Analysis (Δ13C, δ15n, δ2H) offers more discussion and examination on preserved medieval textiles.

⁶⁵ Eva Andersson Strand's book, *The common Thread, Textile Production during the Late Iron Age—Viking Age* offers further discussion.

repairing that confirms the high level of reuse of cloth.⁶⁶ Beyond the limited number of textiles actually found there remains the problem that the scraps found are so small that conclusions about the larger pieces whence they derived often amount only to educated guesswork. Often mere centimeters of fabric remain adhered to the inside of a brooch in a burial site. In Iceland, linens and silks are almost never found, likely due to the soil that does not preserve them to the extent it preserves wool, which itself rarely survives in a condition to be easily examined.⁶⁷

Archaeological finds in locations like Gásir and Möðruvellir reveal a consistency by the 11^{th} century in the *vaðmál* discovered, with its 2/2 twill⁶⁸ and a denser weave of an average of 10 warp threads per 6 weft threads.⁶⁹

The textiles that have been found speak to the variety that was used, with patterned twills, pile weaves, and tablet weaves. Of 59 examples found of mineral remains of textiles, 23 appear to have been dyed blue, as they tested positive for the blue dye indigotin. The majority of these finds came from women's burials. We find this same feature of high quantities of blue textiles in graves mirrored in Scandinavia. Both are substantiated by the Icelandic sagas, which suggest an association between death and the color blue.⁷⁰ The link between blue and death also mirrors a link between women and life and death,⁷¹ and finding blue textiles in the burials of women only enhances the connection.

3.4 Sail to Distant Shores

The Viking ship was the key to their economic success both in raiding Europe and in exploring trade routes. The versatility of the design of the ship with shallow keels allowed for travel both in the open ocean and in narrow rivers, with easy maneuverability due to no fixed fore or aft of the ship and optional rowing ports. Surmounting the ship's majesty was its single sail. As previously discussed, the great

⁶⁶ Michèle M Hayeur Smith, The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic (Gainesville, FL: University Press of Florida, 2020), 59.

⁶⁷ Ibid, 31.

⁶⁸ Ibid, 62.

⁶⁹ Ibid, 65.

⁷⁰ Ibid, 41.

⁷¹ As will be further discussed in the following section.

sail demonstrated a marvel in weaving ingenuity the success of which depended upon many elements. These ships, equipped with these sails brought them all the way to the New World and back. Without this ingenious weaving the Vikings could not have had their stagging impact upon England—which still enforces much of the Danelaw—let alone upon mainland Europe.

3.5 Relations with the Rest of the World: Trade

The Vikings began their relationship with the rest of Europe essentially as pirates. During the Golden Age of the Vikings, they raided the Carolingian Empire annually for over half a century as the Carolingians lacked a fleet to defend themselves.⁷²

The Vikings gradually ceased their piratical activities and transitioned to merchant activities, with the persuasive understanding that they were prepared to return to piracy if trade grew unprofitable. Trade with Vikings serving as middlemen did prove successful and, with continuing progress in navigation in the 10th and 11th centuries, the Vikings expanded their successful relations around Europe.⁷³ They were best known for trading furs, honey,⁷⁴ and slaves.⁷⁵ With their constant travel the Vikings found it relatively simple to exchange people as unpaid servants.⁷⁶ Textiles from Iceland provided a key part of the trade the Norse exchanged. Cloth made in

⁷² Henri Pirenne, *Economic and Social History of Medieval Europe* (Martino Publishing, 2014), 22.

⁷³ Michèle M Hayeur Smith, The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic (Gainesville, FL: University Press of Florida, 2020), 25. As well as Angela Ling Huang and Carsten Jahnke's Textiles and the Medieval Economy Production, Trade, and Consumption of Textiles, 8th-16th Centuries offers further discussion of the impact on trade made by textiles.

⁷⁴ Marianne Vedeler's Silk for the Vikings offers further discussion of Viking Age trading goods

⁷⁵ Michèle M Hayeur Smith, *The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic* (Gainesville, FL: University Press of Florida, 2020), 24.

⁷⁶ It is important to remember that slavery in this era was not what it has come to be in modern discussion.

Icelandic homes was exported to continental Europe.⁷⁷ German sources describe Icelandic 'wadmal', for example, a relatively inexpensive textile the Germans used to clothe their poor.⁷⁸

There was a flip side to this interaction and trade. In later centuries laws were made to limit what fabrics certain classes of people could and could not wear and own. The post-medieval Icelandic law code, *Jónsbók*,⁷⁹ limited Icelanders' purchase of foreign goods and ownership of "fancy dress" so as to avoid accrual of massive debt or suffering loss of life in freezing temperatures. *Jónsbók* limited 'costly materials' to the wealthy, who could afford such luxury without suffering such damage.⁸⁰ The attention paid to such issues in *Jónsbók* highlights the value Icelanders placed on function in clothing and reveals bias based upon the social status of those wearing them.

 ⁷⁷ Michèle M Hayeur Smith, *The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic* (Gainesville, FL: University Press of Florida, 2020), 130.

⁷⁸ Ibid, 117.

⁷⁹ Jana K. Schulman, Jónsbók: The Laws of Later Iceland; the Icelandic Text According to MS AM 351 Fol. skálholtsbók Eldri. Saarbrücken: AQ-Verlag, 2010.

⁸⁰ Michèle M Hayeur Smith, The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic (Gainesville, FL: University Press of Florida, 2020), 130.

Chapter 3

Magic and Fear of the Unknown

Trade, economy, travel—these are all traceable and leave behind concrete evidence. Textiles exemplify this. Textiles, however, are also irrefutably tied to an aspect of Viking society that afforded far less evidence about its very existence—magic.

4.1 Earth and the Feminine Sphere within it

The study of women and how they have lived and interacted with their culture had been ignored or overlooked by academia, although in the last few decades there has been a sharp rise in examining how women have lived. Because of the earlier lack of study, there has been even less discussion about how textiles interacted with women and their specific roles and features within larger social structures.⁸¹ Women contributed to the economy through the production of cloth⁸² and, as previously mentioned, textiles played a key role in Viking economic prosperity. Throughout history, with few exceptions, women have played a more subtle role in the struggle for power. Many powerful women have been lost to history and many more have been hidden within its pages. While it is true that women during the Viking age had less autonomy than women of the modern era, they relied upon influence to hold power. Their power was won not on a battle field but most commonly through marriage. Many were also both credited with and accused of having used subversive means of control, such as magic, to gain power and influence among their male counterparts.⁸³

Magic is closely connected to the creation of textiles, and both magic and textiles are tightly linked with women. Women's burials are most commonly fitted with a variety of implements and tools associated with textile production. Excavations uncover spindle whorls, weaving swords, wool combs, needles, needle cases, loom weights, distaffs, and many similar items.⁸⁴

⁸¹ Michèle M Hayeur Smith, *The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic* (Gainesville, FL: University Press of Florida, 2020), 2.

⁸² Ibid, 4.

⁸³ Ibid, 5.

⁸⁴ Ibid, 17.

Professor Ben Cartwright of the University of Cambridge has emphasized that spinning and weaving are processes that connect generations of women, as grown women teach their daughters to spin and weave, passing their knowledge to younger generations. From an early age, then, the skills of spinning and weaving become ingrained in each new generation of daughters. These social aspects of spinning and weaving, Cartwright explains, created a context where knowledge could be transferred and modified through communal sharing of information beyond the topics of spinning and weaving and extending into other aspects of fabric production and beyond.⁸⁵

The space to which women had exclusive access also had deep supernatural connotations. This space was the *dyngja*, a small room built away from a main house and partially buried underground. There was no recognizable, formal door to enter and it is believed that stairs led down into the *dyngja*. Most evidence for a *dyngja* points to a small stove-like fire in one corner. The rooms average around 15 feet along each 'wall'. The sunken nature of a *dyngja* leads to the first magical/supernatural connection—the earth. In Norse mythology, the earth itself is female, Jorð, mother of Pórr.⁸⁶ The other connection between the sunken room comes from the poem *Voluspa*. There the Nornir are described as tending the world tree, Yggdrasil; they nourish the tree as they are said to reside beneath its roots, underground—much as Viking women sat in a *dyngja* spinning cloth.⁸⁷

Beyond its connection with Norse myth, the *dyngja* was a place where something was made from seemingly nothing. This compared to a magic specific to women, who are directly connected to the power of bringing forth life. By extension they became linked to both life and death, and by extension—fate. The *dyngja* is thus described as a 'womb-like space' where there is no visible entry or exit, where

⁸⁵ Ben Cartwright, Chapter 11, Making the cloth that binds us. The role of textile production in producing Viking-Age identities, Viking Worlds: Things, Spaces and Movement, (Oxford: Oxbow Books, 2019), 160-162.

⁸⁶ Karen Bek-Pedersen, The Norns in Old Norse Mythology, (Edinburgh, Scotland: Dunedin, 2013), 109.

⁸⁷ Ibid, 92.

something is made from nothing, be it cloth or children.⁸⁸ Women's ability to bear children, specifically to create life out of nothing, was considered magical in nature.

It would be fair to characterize the dyngja as commonly used for textile production; combing wool, spinning, weaving, dying. Indeed, the dyngja was like a magical textile womb—raw wool was brought in, a mass of potential, and in that space it could be crafted into something amazing and useful. In such a space, time is suspended, and something can be created.⁸⁹

Such women's spaces welcomed children, but only for a time. A young boy might sit in a dyngja with his mother, but eventually he would need to leave and not return. To stay would have been akin to being suspended in time, set in an in-between stage, and so a boy must leave so that for him time can continue.⁹⁰

Private societies of women spinners and weavers were common from central Europe through Asia, where women were well known to exclude men from their goings-on and participation.⁹¹ With the exclusivity surrounding spinning, and the general activities within women's spaces, an air of wariness developed around such activities and spaces as well.

Men held the majority of the power for most of history and, where women did enjoy power, such as in textile production,⁹² such power developed in a more subtle manner. Cloth was vital to the Viking economy and, thus, women found themselves in positions of relative power. Discussion among scholars addresses whether men developed a fear of women because of their ability to bring life into existence or because of the seemingly magical element to women's weaving that engendered the

⁸⁸ Michèle M Hayeur Smith, The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic (Gainesville, FL: University Press of Florida, 2020), 21.

⁸⁹ Karen Bek-Pedersen, The Norns in Old Norse Mythology, (Edinburgh, Scotland: Dunedin, 2013), 111.

⁹⁰ Ibid, 111.

⁹¹ Ibid, 106.

⁹² Men did become heavily involved in textile production, all but cutting women out of the process entirely, especially with the addition of horizontal looms, and later mechanizations. Women, however, never were completely excluded.

belief that women could control male sexuality for nefarious purposes. It was this fear that is believed to have developed into fear of witches and their craft.⁹³

Women during this period went through life very differently than their male counterparts. While men focused on strength and more visible and noticeable attributes, women found their strength in subtlety and more subversive avenues. In a man's world, his methods were generally known; women knew how men worked and thought but, by and large, men understood little of women.

4.2 Tools of Magic

Objects can hold power. One such object, cloth, gained more value than just its utilitarian uses by evoking a belief that its production could be and often was a magical and supernatural process. Its creation was linked to mythology and thus gained it greater status than it already enjoyed.

Women have always been associated with the production of cloth, so that beliefs about textile production would be spread to women as well, both for good and bad. As previously discussed, the space where women wove was deeply connected to the creation of life. Thus, for example, in *Eyrbyggja saga (The Saga of the People of Eyri)*,⁹⁴ the 'witch' Katla hides Oddr from his pursuers, who conclude that Katla's distaff is heavily involved in the disappearance of Oddr. First believing that the distaff itself is Oddr, then believing that the distaff is linked to a spell, they reason that by breaking the distaff they will also break the enchantment concealing Oddr from them.

Such ideas flow from the notion that witchcraft perverts the mundane. When a witch rides on a broom, for example, she uses it for the wrong purpose. Similarly, a witch was originally depicted as a nude woman riding backwards on a goat (a common symbol of the devil) and holding a distaff wrapped in wool⁹⁵ serving the function that a magic wand would later occupy. This symbology implies unwanted sexuality from

⁹³ Michèle M Hayeur Smith, The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic (Gainesville, FL: University Press of Florida, 2020), 23.

⁹⁴ Volundr Lars Agnarsson, ed., Eyrbyggja Saga: Translation and Icelandic Text (Norse Sagas), trans. William Morris and Eirikr Magnusson (CreateSpace Independent Publishing Platform, 2012).

⁹⁵ Dorinda Neave, "The Witch in Early 16th-Century German Art," Woman's Art Journal 9, no. 1 (1988): p. 3, https://doi.org/10.2307/1358356.

women and impropriety to their actions, both furthered by magic flowing from ordinary items.

4.3 Magic Versus Fate, and the Role Textiles Play

The sagas and myths describe different types of magic, the most famous of which is *seiðr*.⁹⁶ *Seiðr* is usually understood to reference the feminine ability to envision the future. *Seiðr* is closely tied with $Vqlur^{97}$ as well as with Óðinn (Odin),⁹⁸ who is the only male thought to have practiced it, though he is ridiculed for it in the *Lokasenna*.

Fate, by contrast, shapes and controls the future and death, at once similar to but distinct from magic. In *Fóstbræðra saga*, Grima warns Þormóðr that, though she may be able to conceal him, if he is fated to die that day there is nothing she can do to prevent it.⁹⁹ Narratives commonly depict characters attempting to fight against fate, but ultimately failing. Fate thus appears fixed, impossible or unlikely to be changed without great challenges and battles. Magic, on the other hand, appears to provide a tool for bending events and people.

Involvement with textiles links both magic and fate. During the Viking age, spinning was associated with both witchcraft and fate though the trope a thread representing a life.¹⁰⁰ Spinning thread is a difficult and precise practice, as is magic, and it thus made sense to intertwine them. The *Laxdæla saga* (Saga of the People of Laxárdalr),¹⁰¹ for example, implies that Guðrun used magic to influence the outcome of a fight between her husband, Bolli, and the man she loves, Kjartan. To do so she spun

⁹⁶ Francois-Xavier Dillmann's Les magiciens dans l'Islande ancienne: Etudes sur la representation de la magie islandaise et de ses agents dans les sources litteraires norroises offers the most extensive discussion of magic and seiðr.

⁹⁷ Volur is the plural of Volva in Old Norse spelling.

⁹⁸ Diana L. Paxson's *Odin: Ecstasy, Runes & Norse Magic,* offers more on the discussion of Odin and his relation to magic.

⁹⁹ Karen Bek-Pedersen, The Norns in Old Norse Mythology, (Edinburgh, Scotland: Dunedin, 2013), 146.

¹⁰⁰ Michèle M Hayeur Smith , *The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic* (Gainesville, FL: University Press of Florida, 2020), 18.

¹⁰¹ Magnús Magnússon and Hermann Pálsson, *Laxdæla Saga* (London: Penguin Books, 1987).

yarn for 12 ells of cloth while Bolli murdered Kjartan.¹⁰² Even if it were nothing more than a symbolic act, then, the saga impbues Guðrun's spinning and with possible magic.

In this regard, language matters as well. Old Icelandic distinguished between the verbs *verða* and *spinna*. Modern vernacular does not; there is little difference between those words' translations, 'turning around rapidly' and 'spinning'. Originally, however, 'to spin' meant 'to draw out' or 'to pull out' as spiders do when weaving a web. 'Spinning' in this case does not mean 'rapidly turning around'. There is little to no evidence of the verb *verða* having been used to describe the spinning of threads.¹⁰³ The first time the English language saw the use of 'spinning' meaning 'to whirl around, to revolve' occurred in 1667.¹⁰⁴ While the possibility of a variation of *verða* and *spinna* as synonyms is unlikely, no one knows what kind of language was being used in speech that might have not been represented in writing, so care must be taken. Importantly, however, the original context of spinning, referring to the drawing or pulling out of thread, permitted spinning to serve as a symbol of life and its creation—the most palpable form of magic known to all but denied almost entirely to men. No wonder, then, that the male components in Viking society would distrust the possibly magic skills of spinners and equate spinning with witchcraft.

4.4 The Nornir, the Valkyries, and the Volur

Discussions of supernatural women in the Norse myths tend to lump them together. Nornir, Valkyries, and Volur seem to overlap considerably, at least in casual discussion. The greatest discrepancy falls around the Nornir, or Norns. Historically they have been heavily associated with the weaving of fate. In many respects they present the Scandinavian counterparts to the Three Fates from Greek mythology. The roles of the three Nornir remain debated today. What can be stated with certainty, however, is that there were more Norns than the famous three. The sagas mention

¹⁰⁴ Ibid 81.

¹⁰² Michèle M Hayeur Smith, The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic (Gainesville, FL: University Press of Florida, 2020), 18.

¹⁰³ Karen Bek-Pedersen, The Norns in Old Norse Mythology, (Edinburgh, Scotland: Dunedin, 2013), 80.

additional 'good' and 'bad' Nornir related neither to spinning nor to fate.¹⁰⁵ In modern Icelandic, *norn* means something akin to 'witch' or 'hag'. But in the Viking age Norns were not viewed as witches, nor did they work magic; according to the sources, they had few interactions with fate or its control.¹⁰⁶

The three Nornir primarily encountered were known as Urð, Verðandi, and Skuld. Some academic sources interpret them as Past (what has become), Present (becoming), and Future (should come) respectively¹⁰⁷ while others view this comparison skeptically.¹⁰⁸ They were thought to have lived beneath the roots of Yggdrasil, tending to the world tree. This may have led to the assumption that they govern life and death, as all life stems from Yggdrasil.

The Nornir appear rarely in the sagas, though this is also so with other supernatural beings. Beyond their lack of engagement with fate, they fail to project themselves with the image of spindle or any other textile tool—enhancing the possibility that the Norns have been improperly equated with the Greek Fates, who overtly controlled fate through spinning threads. Indeed the only reference to the Norns having performed an activity related to textiles appears in the Eddic poem *Helgakviða Hundingsbana I 2-4*.¹⁰⁹ The Nornir are described there to ply three threads into one, with one thread attached to the sky and the others fastened to directions of the compass. This poem no doubt exemplifies the Nornir working with textiles while setting up the fate of a newborn hero,¹¹⁰ offering the possibility that other stories and poems discussed

¹⁰⁸ Karen Bek-Pedersen, The Norns in Old Norse Mythology, (Edinburgh, Scotland: Dunedin, 2013), 77.

¹⁰⁹ Ibid, 127. ¹¹⁰ Ibid, 130.

¹⁰⁵ Michèle M Hayeur Smith, *The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic* (Gainesville, FL: University Press of Florida, 2020), 17.

¹⁰⁶ Karen Bek-Pedersen, The Norns in Old Norse Mythology, (Edinburgh, Scotland: Dunedin, 2013), 1.

¹⁰⁷ Michèle M Hayeur Smith, The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic (Gainesville, FL: University Press of Florida, 2020), 17.
the Nornir connected them to fate and weaving as elements of the narrative, but any such stories or poems have been lost to time.

The available textual sources, however, include few connecting the Nornir and spinning or weaving. It seems likely, then, that the Norns have been conflated with the fate-weaving Fates of Greek mythology and the conflation has led to a common misconception that the Norns were thought, in fact, to weave fate—rather than merely deciding it.

The next category of supernatural women, the Valkyries, bear little connection to the Nornir, but are instead associated with death, glory, and Valhalla. They are best known for frequenting battlefields to retrieve warriors who have died with honor to carry them to Valhalla to eat, drink, and fight in preparation for the final battle of Ragnarök. According to legend, a warrior in battle feels a tap on his shoulder and sees a Valkyrie marking him and then fights on with redoubled fury knowing that he goes to a glorious death.

Finally, Volur skirt the line between mundane and supernatural. The most famous depiction of a Volva appears in the case of *Voluspa* or 'prophecy of the seeress'. It is through this poem that we know how the world came to be and how it will fall. The two best known stories containing a Volva are *Voluspa* and *Baldrs Draumar*.¹¹¹ In both the Volva is dead but is called upon for important information. Both Volur seem reluctant to part with the information, as if to do so would reduce their power. In *Voluspa*, she pauses in the middle of the poem to ask "do you know yet?" implying that she wishes to share as little as possible. Frigg, highest of the goddesses, is reputed to know fate just as a Volva does, as shown in *Lokasenna*, where Loki is advised not to anger Frigg because she knows fate.¹¹² But Frigg is never described as a decider of fate. Rather, it is the Volva who can view the fate of man and god alike, though it remains unclear if they can exert control. Between the mortal Volva's reluctance to share and Frigg's silence, it appears that this knowledge is both precious and powerful—"Not easily obtained or parted with".¹¹³

- ¹¹¹ Ibid, 97.
- ¹¹² Ibid, 98.
- ¹¹³ Ibid. 98.

4.5 Christian Touch

When considering magic and the supernatural during the Viking age, one must bear in mind that the sources derive from another culture. We have sources like *Íslendingabók (Book of Icelanders)*,¹¹⁴ that is considered to be a historical text,¹¹⁵ while the legendary sagas occupy a space closer to the myths and eddas. But the sagas and the eddas were recorded in the medieval era, when paganism had receded and Christianity had come to dominate. And as a result, Norse sources are received through a Christian lens. Some elements may be misremembered or even modified to evangelize a Christian ideology. While the customs and practices recorded in modern sources were written by the descendants of Viking culture, their culture had changed enough render them foreign from their forefathers.¹¹⁶ Unless adjusted by objective archeology or similar sources, therefore, any study of magic and the supernatural from these periods must rely, ironically, on faith in the fairness of those that transmitted the ancient sources.

4.6 History, Myth, and Literature

While they differ, history and myth nonetheless intertwine. Myth does not depend upon time or objectivity; it may double back on itself and work in ways the objective world cannot, while history is bound to unyielding chronologies and findings that can be corrected but not undone.¹¹⁷ History must represent events that can be confirmed; it demands documents, evidence, and objectivity, in short, accuracy, answering both to those studying history and to those living it.¹¹⁸ Myth faces no such restrictions and lives in its own world; it may do as it likes. But the two sometimes overlap, as when we hear of events that accord with history but are then moved by magical elements into the realm of myth.

¹¹⁴ Ornolfur Thorsson, ed., *The Sagas of Icelanders: A Selection*, 1st ed. (Viking Adult, 2000).

¹¹⁵ Hermann Pernille, *Reflections on Old Norse Myths* (Turnhout: Brepols, 2007), 45.

¹¹⁶ Stephen A. Mitchell, *Witchcraft and Magic in the Nordic Middle Ages* (University of Pennsylvania Press, 2011), 25.

 ¹¹⁷ Hermann Pernille, *Reflections on Old Norse Myths* (Turnhout: Brepols, 2007), 17
¹¹⁸ Ibid, 21.

The modern world seeks to prevent myth from living side by side with history, nor does it accept the supernatural as real. Those in the Viking age, however, lived closely with myth and treated myth as part of history. Attempts by historians to reconstruct and interpret the supernatural aspects of Viking culture are thus colored by their own understanding of 'magic' and 'myth'.¹¹⁹

Some suggest that we must regard the compilation of the sagas¹²⁰ and eddas not only as a preservation of the past, but as a creation of a past.¹²¹ They both preserve a distant past but also illustrate what the more recent past thinks of that distant past. What was remembered and recorded by the 14th century, such as the popularity of the relationship between Odin, poetry, and chieftainship, may not reflect the attitudes of the multitudes but rather of those who told the stories—and perhaps of those paying for the stories to be told.¹²² These records can only offer only a slice of history and other elements that may have been important during the period may have become lost. That complicates the task of historians, who must dig through the material and extract a glimpse of the history that has remained buried.

¹¹⁹ Stephen A. Mitchell, *Witchcraft and Magic in the Nordic Middle Ages* (University of Pennsylvania Press, 2011), 23.

¹²⁰ This is in reference to the Legendary sagas, which are well known to contain fantastical elements, rather than the sagas of the Icelanders, which represents a more accurate early history of Iceland's first settlers.

¹²¹ Stephen A. Mitchell, *Witchcraft and Magic in the Nordic Middle Ages* (University of Pennsylvania Press, 2011), 75.

¹²² Ibid, 27.

Chapter 4

The Magic of Textiles in and Around the Sagas

The sagas, especially the legendary sagas, blur the lines between what is rationally known about history and the objective course of events, on one hand, and murkier areas of the supernatural and magical, on the other. The belief in the Norse gods, the understanding of fate, and many more, lend a hand in demonstrating the role magic played in the Viking age.

5.1 The Sagas as History and Myth

The sagas offer the largest literary source for the lives of Vikings known to the modern world. They are not simple stories that speak to Viking life but rather complex narratives telling vast tales passed down orally for generations. Some contain magic, monsters, and varied elements to enthrall the listener.

The sagas, however, also offer an interpretive challenge because they were recorded in the 13th and 14th centuries and told stories of people who lived, and events that happened, between the 9th and early11th centuries. That is, they were recorded at least a century after the fact. Much can happen in such time. The gap leads to doubt about the accuracy of the portrayals of society and common life. During that gap Iceland changed its religion, national economy, and relations with the world. Iceland may have moved more slowly than Scandinavia during this time, but it did move, advance, and change. As a result, historians must take the sagas with a grain of salt. What the sagas do offer unequivocally, is a picture of what the later medieval society thought of and remembered the Vikings to have been.

This challenge in reading the sagas occurs routinely in history. Both general historians and art historians, for example, have addressed the depictions of Jesus in medieval art, typically in medieval European garb rather than clothing appropriate for Roman Judea in 1st century A.D. The very notion of historical accuracy¹²³ did not develop until the modern era, and artists and authors in earlier eras would have felt no pressure to represent a previous century with objective accuracy. As a result, one

¹²³ As previously discussed in earlier sections.

cannot and should not rely on the saga authors in the 13th century to represent with objective accuracy events in the 10th century.¹²⁴

In this regard, legendary sagas like the *Volsunga saga* and *Ragnars saga*¹²⁵ suggest that they cannot be regarded as objective reflections of historical events.¹²⁶ In the case of Ragnar's saga, the titular character of Ragnar 'Loðbrok'¹²⁷ may not have existed at all. Historical accounts do mention a 'Ragnar' or 'Reginheri' who took part in the Viking attack on Paris in 845, but no evidence outside of the saga shows evidence that this legendary Ragnar existed. To be sure, many sources confirm that the great heathen army attacked England and established the Dane law, but such sources do not confirm the existence of the Ragnar as depicted in the saga.

In the case of the *Volsunga saga*, modern readers take as obvious—with the use of magic objects, dragons, and raucous acts of the Norse Gods—that the narrative does not reflect objective history. The *Volsunga saga* offers elements for literary and cultural study, but not an element of objective events; it offers a study of people rather than a study of events. But the *Volsunga saga* does offer an unimpeded view of a mythic overlay to historical events.¹²⁸ The story in any event cannot exist without its fantastical elements and so cannot amount to a 'historical' telling of events. The legendary sagas offer stories free from the constraint that we know as historical accuracy; instead, they illustrate the tie between Viking culture and the magical elements in it and how magic and history can occupy the same space, both having been accepted by contemporary audiences.

Another major element to consider when addressing the sagas is the identity of those recording them. This discussion specifically considers how textiles were seen, and especially how they relate to magic, so addressing who recorded the sagas and their possible biases cannot be excluded. We know the sagas were written by powerful

¹²⁴ Jane Christine Roscoe, *The literary significance of clothing in the Icelandic family sagas* (Durham University, 1992), 2.

¹²⁵ Jackson Crawford, *The Saga of the Volsungs: With the Saga of Ragnar Lothbrok* (Indianapolis: Hackett Publishing Company, Inc., 2017).

¹²⁶ Hermann Pernille, *Reflections on Old Norse Myths* (Turnhout: Brepols, 2007), 57.

¹²⁷ 'Loðbrok' or 'loðbrok', I am choosing to capitalize, though there is no evidence to suggest that this was regarded in the same sense as a modern last name would be.

¹²⁸ Hermann Pernille, *Reflections on Old Norse Myths* (Turnhout: Brepols, 2007), 119.

medieval men¹²⁹ and that they sought to write down their own history, folklore, and the sagas' blend of myth and history, and the writers would have had ways to describe what women did, what roles they played, and by extension, how textiles factored in.

A close link has long been perceived between spinning and witchcraft, as previously mentioned, and so to examine textiles in the sagas can often require examining witchcraft as well. It is difficult to say exactly what parts of the saga reflect the time they were recorded and which parts, if any, reflect the time in which they are set.

Though the sagas as recorded can be questioned, what cannot be questioned is that they reflect the sense of the medieval Scandinavians when it comes to their seafaring forefathers. They thus glorify the adventures of the Golden Age of the Vikings.¹³⁰ The sagas were not written by people in other cultures but rather by the descendants of the Vikings themselves and so are bound to have flattered their image more than foreign writers might have done.

5.2 Social Standing through Cloth in the Sagas

The preceding discussion of the sagas as history and myth emphasized the limitations that should be recognized about the historical accuracy of the sagas. Fortunately for this thesis, however, it appears that those recording the sagas had little incentive to aggrandize, cover up, or misrepresent details about how textiles and clothing were treated during the Viking age and, thus, how they were used in a social environment.

In this regard, the clothing in the sagas served a narrative purpose beyond simply setting the scene.¹³¹ In fact, it would appear that in almost all instances where clothing is mentioned it reflected directly on the plot and often was vital to furthering the narrative.

¹²⁹ Michèle M Hayeur Smith, The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic (Gainesville, FL: University Press of Florida, 2020), 5.

¹³⁰ Henri Pirenne, *Economic and Social History of Medieval Europe* (Martino Publishing, 2014), 26.

¹³¹ The topic of clothing and the sagas is an entire subject unto itself, and I am merely brushing on this much larger topic.

For example, characters in the sagas tend to appear wearing their 'best' clothes, or at least clothes that suited the plot.¹³² This approach compares to use of costuming in modern stage and film to initially inform the audience of important facts about a given character. In the world of visual storytelling clothing serves to reveal aspects about the characters and plot that would otherwise be missed. This principle applies to oral and written storytelling as well.

We see in sagas like *Gísla saga Súrssonar* (The saga of Gísli the Outlaw)¹³³ how the group that accompanies Gísli, Þorkell, and their brother-in-law, Þorgrímr, are all finely dressed, serving to display the family's wealth.¹³⁴ This use of dress to signify prosperity continues in other sagas like in *Kjalnesinga saga*,¹³⁵ where Hallgerðr dresses in fine clothes to impress suitors like Sigurður Þorláksson. Through the saga she is dressed more conservatively, but here, special attention is paid to her fine clothes.¹³⁶ Hallgerðr's finery reflected the contemporary attitudes under which fine fabrics could both enhance a woman's beauty and serve to demonstrate the wealth of her and her family, which can afford luxurious fabrics.

Clothing and textiles also serve the plot by the particular transaction, either as a gift or as a payment. In *Floamanna saga* (the saga of the men of Flói),¹³⁷ clothing is given as a gift of friendship. The gift is a tunic made, significantly, from an 'unrecycled' length of fabric, meaning that it was not altered or 'handed down', and made specifically to be given to Gunnar Onmstunga.¹³⁸ Almost the reverse occurs in *Ljósvetninga saga*,¹³⁹ where the merchant Helgi strikes a bargain with a farmer, Porir Akraskegg, under which Helgi sells his goods to Porir in exchange for several woven cloaks. Helgi, however, does not check the quality of these cloaks before he departs and later finds that the cloaks are full of holes. Porir is ultimately punished for his

¹³² Jane Christine Roscoe, *The literary significance of clothing in the Icelandic family sagas* (Durham University, 1992), 52.

¹³³ Valdimar Ásmundarson, Saga Gísla súrssonar (Reykjavík: Kristjánsson, 1899).

¹³⁴ Jane Christine Roscoe, *The literary significance of clothing in the Icelandic family sagas* (Durham University, 1992),18.

¹³⁵ Valdimar Ásmundarson, Kjalnesinga Saga (Reykjavik, 1902).

¹³⁶ Jane Christine Roscoe, *The literary significance of clothing in the Icelandic family sagas* (Durham University, 1992), 64.

¹³⁷ Valdimar Ásmundarson, *Flóamanna Saga* (Reykjavík: S. Kristjánsson, 1898).

¹³⁸ Robin Netherton and Gale R. Owen-Crocker, *Medieval Clothing and Textiles* 4 (Woodbridge: Boydell & Brewer, 2008), 24-25.

¹³⁹ Valdimar Ásmundarson, *Ljósvetninga Saga* (Reykjavík: S. Kristjánsson, 1896).

transgression and is banished. As previously discussed, this instance illustrates the importance of the *vaðmál* as currency. By delivering goods that did not correlate to the laws on fabric Þorir is grievously punished by being barred from returning to his community—not a small matter in this period.

In the sagas, clothing also serves to identify groups and individuals. In *Eyrbyggja saga*, Sigurður sees a group of men approaching and correctly identifies them by their clothing as Norwegian merchants. Another example, though unfortunately not a happy one, appears in *Færeyinga saga* (the saga of the Faroe Islands),¹⁴⁰ in which Sigmundur washes up upon an island and a *bóndi* (a farmer in this case) notices his fine clothes and kills him to take the clothes as well as his gold armring. Clothing is employed as an identifier constantly and, as mentioned earlier, what people were permitted to wear which types of clothing presented a question heavily regulated.

5.3 Magic of Concealment in Eyrbyggja saga and Fóstbræðra saga

Magic is used in many settings and, in the case of *Eyrbyggja saga* (*The Saga of the People of Eyri*) and *Fóstbræðra saga* (The Saga of the Sworn Brothers),¹⁴¹ magic intertwined with textiles is used to conceal.

In *Eyrbyggja saga*, the sorceress Geirriðr is asked to find Oddr, who has been concealed by his mother, Katla. Katla uses spinning-induced magic to hide Oddr from the men chasing him. This search party had had no luck against Katla's magic and so the search party seeks out Geirriðr because she is the only one who can contend with Katla.¹⁴² Contrary to later beliefs about witchcraft, Geirriðr is not only respected by the search party but is given authority in hunting Oddr. The saga as reported observes that Geirriðr wears distinctive clothing—a textiles-related point quite unnecessary other than to signify Geirriðr's stature and reputation within the culture.

A similar tale of concealment, *Fóstbræðra saga*, places Grima, an adept at magic, in the position of concealing Þormóðr, who again is being chased. She first sits

¹⁴⁰ Ólafur Halldórsson, *Faereyinga Saga* (Reykjavik: Stofnung Árna Magnússonar a Íslandi, 1987).

¹⁴¹ The Sagas of Icelanders: A Selection (New York: Viking, 2010).

¹⁴² Jane Christine Roscoe, *The literary significance of clothing in the Icelandic family sagas* (Durham University, 1992), 46.

him in a chair that is carved on its back with the symbol of Þórr, then she sets seal meat in a pot to boil. With the smoke and the smell, and Þormóðr seated on the chair in the middle of the room, the search party is unable to find him. Grima, however, tells Þormóðr something interesting—she tells him that even though she may hide him, if he is fated to die that day, there is nothing she can do to prevent it.

By contrast, in *Eyrbyggja saga*, Katla's magic is clearly illusion, while Grima's is subject to overruling by fate. And magic and fate are not the same.

5.4 Love and Death in Volsunga saga and Laxdæla saga

'Hell hath no fury like a woman scorned.' (William Congreve, the Mourning Bride). This is true across all cultures and, of course, it appears in the sagas as well. *Laxdæla saga*, mentioned earlier as an illustration of spinning magic, is unique because it applies a clear feminine outlook rather than the common masculine narrative.¹⁴³ In *Laxdæla saga 49*, Guðrún had 'spun twelve ells of yarn' while her husband Bolli slayed the man she loved but could not have, Kjartan; the saga implies that her spinning created a magic that influenced Bolli to murder Kjartan.¹⁴⁴ Guðrún loved Kjartan, to be sure, but she could not have him and so assured that no one would by spinning magic to her will and aiding Bolli to succeed.

A similar sentiment appears in *Vǫlsunga saga*. There, Brynhildr is bound by fate. She knows she will loose Sigurðr, but a betrayal against her forces her hand.¹⁴⁵ As Guðrún aids her husband in killing Kjartan, so Brynhildr relies on an oath from her husband to end Sigurðr's life.

Both Guðrún and Brynhildr are strong women who center their narratives and they both love men they cannot have. While Guðrún seems the more malevolent of the pair, as she 'allegedly' controls and influences her husband to kill the actual man she

¹⁴³ Henri Pirenne, *Economic and Social History of Medieval Europe* (Martino Publishing, 2014), 26.

¹⁴⁴ Karen Bek-Pedersen, The Norns in Old Norse Mythology, (Edinburgh, Scotland: Dunedin, 2013), 46.

¹⁴⁵ Jackson Crawford, The Saga of the Volsungs: with the Saga of Ragnar Lothbrok, (Hackett Publishing Company, 2017).

loves, she is also the one seen using magic to do so, while Brynhildr does use forms of magic, she brings about Sigurðr's death through oaths and honor.

5.5 Magic, Fate, and Fear in Njál's Saga

The most famous instance within the sagas of the mixture of magic, textile work, and the attitudes toward this mixture appears in the poem *Darraðarljóð* in *Njál's* saga.¹⁴⁶

> Vítt es orpit fyr valfalli rifs reiðiský; rignir blóði; nú's fyr geirum grár uppkominn vefr, verþjóðar es vinur fylla. [rauðum vepti Randvés bana]. Sjá's orpinn vefr ýta þǫrmum ok harðkléaðr hǫfðum manna; eru dreyrrekin dorr at skoptum, járnvarðr yllir, en orum hrælaðr. [skulum slá sverðum sigrvef benna].

Gengr Hildr vefa ok Hjǫrþrimul,

¹⁴⁶ Robert Cook, *Njal's Saga*, (London, England: Penguin Classics, 1997).

Sanngríðr, Svipul sverðum tognum; skapt mun gnesta, skjǫldr mun bresta, mun hjalmgagarr í hlíf koma.

Vindum, vindum vef Darraðar, þann's ungr konungr átti fyrri; framm skulum ganga ok í folk vaða, þars vinir órir vôpnum skipta.

Vindum, vindum vef Darraðar ok siklingi síðan fylgjum; þar séa bragnar blóðgar randir, Gunnr ok Gǫndul es grami fylgðu.

Vindum, vindum vef Darraðar, þars vé vaða vígra manna; lôtum eigi líf hans farask, eigu valkyrjur vals of kosti.

Þeir munu lýðir lǫndum ráða, es útskaga áðr of byggðu, kveðk ríkjum gram ráðinn dauða; nú's fyr oddum jarlmaðr hniginn.

Ok munu Írar angr of bíða, þats aldri mun ýtum fyrnask. Nú's vefr ofinn, en vǫllr roðinn; mun of lǫnd fara læspjǫll gota.

Nú's ógurligt umb at lítask, es dreyrugt ský dregr með himni; mun lopt litat lýða blóði, es sóknvarðir syngva kunnu.

Vel kvôðum vér of konung ungan sigrhljóða fjǫlð, syngum heilar; en hinn nemi es heyrir á, geirfljóða hljóð ok gumum segi.

Ríðum hestum hart út berum, brugðnum sverðum, á brott heðan.,,¹⁴⁷

Translation:

[See! warp is stretched For warriors' fall, Lo! weft in loom

'Tis wet with blood; Now fight foreboding, 'Neath friends' swift fingers, Our grey woof waxeth With war's alarms, Our warp bloodred, Our weft corseblue.

"This woof is y-woven With entrails of men, This warp is hardweighted With heads of the slain, Spears blood-besprinkled For spindles we use,

¹⁴⁷ R. D. Fulk, "Anonymous Poems, Darraðarljóð," Skaldic Poetry of the Scandinavian Middle Ages (Skaldic Project; Brepols), accessed January 3, 2022, https://skaldic.org/skaldic/m.php?p=text&i=1008.

Our loom ironbound, And arrows our reels; With swords for our shuttles This war-woof we work; So weave we, weird sisters, Our warwinning woof.

"Now Warwinner walketh To weave in her turn, Now Swordswinger steppeth, Now Swiftstroke, now Storm; When they speed the shuttle How spearheads shall flash! Shields crash, and helmgnawer On harness bite hard!

"Wind we, wind swiftly Our warwinning woof Woof erst for king youthful Foredoomed as his own, Forth now we will ride, Then through the ranks rushing Be busy where friends Blows blithe give and take.

"Wind we, wind swiftly Our warwinning woof, After that let us steadfastly Stand by the brave king; Then men shall mark mournful Their shields red with gore, How Swordstroke and Spearthrust Stood stout by the prince.

"Wind we, wind swiftly Our warwinning woof. When sword-bearing rovers To banners rush on, Mind, maidens, we spare not One life in the fray! We corse-choosing sisters Have charge of the slain.

"Now new-coming nations That island shall rule, Who on outlying headlands Abode ere the fight; I say that King mighty To death now is done, Now low before spearpoint That Earl bows his head.

"Soon over all Ersemen Sharp sorrow shall fall, That woe to those warriors Shall wane nevermore; Our woof now is woven. Now battlefield waste, O'er land and o'er water War tidings shall leap.

"Now surely 'tis gruesome To gaze all around. When bloodred through heaven Drives cloudrack o'er head; Air soon shall be deep hued With dying men's blood When this our spaedom Comes speedy to pass.

"So cheerily chant we Charms for the young king, Come maidens lift loudly His warwinning lay; Let him who now listens Learn well with his ears And gladden brave swordsmen With bursts of war's song.

"Now mount we our horses, Now bare we our brands, Now haste we hard, maidens, Hence far, far, away.]¹⁴⁸ (*Njal's saga*, Chapter 156)

Discourse abounds over the exact nature of the supernatural actions at play within the poem. Beyond question, however, is that the Valkyries are weaving out the course of battle with magical intention. Perhaps they determine the fates of those before the battle begins, or perhaps they weave to see what the fates of those on the battlefield will be. The Valkyries either control or foresee the outcome before the battle begins— and crucially employ their weaving toward their ends.¹⁴⁹ This poem may also present a narrative tool to display the battle and the application of fate within it. As discussed in section 1, spinning and weaving require great precision and the notion that magic,

¹⁴⁸ "The Battle Poem of the Valkyries," Orkneyjar, accessed January 3, 2022, http://www.orkneyjar.com/tradition/darra.htm.

¹⁴⁹ Karen Bek-Pedersen, *The Norns in Old Norse Mythology*, (Edinburgh, Scotland: Dunedin, 2013), 129.

which perforce demands similar precision, would be tied metaphorically and practically to these exacting skills is easy to grasp.

The gory nature of the Valkyries' work blended with an archetypal woman's activity demonstrates a symbiosis between mortal women and those of the supernatural. Both perform conceptually the same actions, but often for different outcomes. The use of spinning and weaving to bring about magic blends the two, the overlap of the mundane and the magical.

The only direct mention of the Valkyries having 'influence' or 'control' over the tide of battle through the weaving appears in the lines "we course-choosing sisters have charge of the slain". This passage suggests that the Valkyries would choose the course for those fighting in battle, at least, and references the other role of the Valkyries as caretakers of those fallen warriors in Valhalla.

Chapter 5

In Conclusion

This thesis has examined the process of textile production and the merit of its product, clothing, as social signifiers. The economic aspects of textiles have been examined in both their uses at home, such as with Iceland's *vaðmál*, and in the context of trans-national commence. The connection between textiles, magic, and Norse myth have been considered as well, including how they are seen with an earthly representation. The sagas added depth to both areas of discussion, as the sagas offer both history and legend.

Further studying of textiles should, likely, reveal more about Viking society and connect different aspects of the culture both through the study of archaeological evidence and through examination of the literature and attitudes that stemmed from textile production and the beliefs surrounding it.

This thesis, as well as studies like this, likely could be improved by further original practice—putting the practical elements of textiles and their production alongside the academic, archeological, and literary work, helping each to illuminate the others. The rise in living history museums¹⁵⁰ approaches that idea, as a first step.

In this regard, living history can move a student of history to a deeper appreciation of the subject. Learning to spin wool and weave cloth fosters an understanding as to why textiles were deemed precious, why none were wasted, in a way that nothing else can. Crafters take pride in their creations. Original practice cannot be replaced when it comes to understanding crafting. The same perceptions cannot be achieved using modern means, as opposed to perceptions achieved with techniques authentic to the period

A study like this expects the mundane aspects of textiles and their production could be celebrated and enhance the legacy of the Vikings, while their connection to magic and myth might implicate a darker side, less evidenced, less discussed, and more mysterious. The modern world separates the two, of course, and examines them in an

¹⁵⁰ Living history is the practice of involving both historians and audiences with the material, acting out daily activities and testing out the practices that archaeology and literature present. This adds the human element back into this area of study, and gaps that were left in evidence are offered a solution with using human logic.

isolated manner. But fair study of the subject in the context of the Viking age quickly turns to blending the mundane and magic aspects of textiles and recognizing their symbiotic relationship. For Vikings, the supernatural elements become part of the mundane and vice versa; in their world, these two elements, the myth and the mundane, coexisted without the constraint of categorization. From the modern perspective, it becomes easy to forget that, in pre-Christian or even early Christian cultures, magic and myth were deemed as real as science is today. The Norse Gods offered a complex, subtle tool to make sense of life, to explain why a winter was particularly difficult, why a loved one died, where humanity fits within the cosmos. With the rise of Christianity came the fading of the Old Gods, then the idea that they never existed, and that they were mere interpretations of nature. To the Vikings, however, they and their magic operated coextensively with the mundane world—and the mundane and magical use of textiles reveal how interwoven they were.

For the future, historians can hope that archaeologists continue to advance the objective evidence about Viking history—including more and larger specimens of textiles or their residues—that will assist in developing a clearer view of textiles of the Viking age.

It is desireable for texile history to take a greater role in the discussion of history and historical culture. This goal starts to look more hopeful with general trends in historical study, as well as the growing presence of dress and clothing historians rendering the topic more accessible than in previous decades. Several of the books examined in this thesis were published only within the last five years, which encourages the continued rise in textile history. The study of historical textiles offers a greater understanding of the culture in which they were created, offering insight and connections that would be unattainable without them.

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References

- Aaron.Spindlevs.wheels,January1,1970.http://gansey.blogspot.com/2012/02/spindle-vs_wheels.htm
- Andersson Strand, Eva. "Archaeology, Culture and Clothing. Society and Culture, Two Faces of the Same Ethnic Coin?" Archaeologia Polona 34 (1996): 137–41.Warming, Rolf, Luise Ørsted Brandt, Dorte Sommer, René Larsen, and Jet van Lanschot. "Shields and Hide On the Use of Hide in Germanic Shields of the Iron Age and Viking Age." Bericht Der Römisch-Germanischen Kommission 97 (2020): 155–226. doi:10.11588/berrgk.2016.0.76641.
- Andersson Strand, Eva, and Anne Batzer. *The Common Thread: Textile Production during the Late Iron Age Viking Age*. Lund, 1995.
- Andersson Strand, Eva. "Invisible Handicrafts, the General Picture of Textile and Skin Crafts in Scandinavian Surveys." In L. Larsson Et Al. (Eds), Lund Archaeological Review 1995, 7-19., 1996.Warming, Rolf. "NEW STODY RELEASED: Shields and Hide." Web log. *CombatArchaeology.org* (blog). Society for Combat Archaeology, 2020. https://combatarchaeology.org/new-study-on-shields-andhide/.
- Andersson Strand, Eva, Karin Margarita Frei, Margarita Gleba, Ulla Mannering, Marie-Louise Nosch, and Irene Skals. "Old Textiles New Possibilities." European Journal of Archaeology 13, no. 2 (2010): 149–73. doi:10.1177/1461957110365513.Thórtharson Sturla, and Julia McGrew. *The Saga of the Icelanders*. New York: Twayne, 1970.
- Andersson Strand, Eva, and Marie-Louise Nosch. "Shape of Things. Understanding a Loom Weight." Oxford Journal Of Archaeology 28(4), 2009. "Viking History Table of Contents." Hurstwic. Accessed December 2, 2021. http://www.hurstwic.com/history/text/history.htm.
- Andersson Strand, Eva. Tools for Textile Production from Birka to Hedeby: Excavations in the Black Earth 1990-1995. Stockholm: Birka Project for Riksantikvarieämbetet, 2003.
- Banner, Bertha. Household Sewing with Home Dressmaking. La Vergne: Antiquarius, 2021.
- "The Battle Poem of the Valkyries." Orkneyjar. Accessed January 3, 2022. http://www.orkneyjar.com/tradition/darra.htm.
- Bek-Pedersen, Karen. The Norns in Old Norse Mythology. Edinburgh, Scotland: Dunedin, 2013.

- Broudy, Eric. *The Book of Looms: A History of the Handloom from Ancient Times to the Present.* Waltham, MA: Brandeis University Press, 2021.
- Butler, Judith. *Gender Trouble: Feminism and the Subversion of Identity*. New York; London: Routledge, 2006.
- Byock, Jesse L. Viking Age Iceland. London: Penguin, 2001.
- Crawford, Jackson C. The Saga of the Volsungs: with the Saga of Ragnar Lothbrok. INpolis, IN: Hackett Publishing Company, 2017.

Cook, Robert, trans. Njal's Saga. London, England: Penguin Classics, 1997.

- Dennis, Andrew, Peter G. Foote, and Richard Perkins. *Laws of Early Iceland, grágás*. Winnipeg: University of Manitoba Press, 1980.
- Dillmann François-Xavier. Les Magiciens Dans L'islande Ancienne: Études Sur La représentation De La Magie Islandaise Et De Ses Agents Dans Les Sources littéraires Norroises. Uppsala: Kungl. Gustav Adolfs akademien för svensk folkkultur, 2006.
- Dorinda, Neave. "The Witch in Early 16th-Century German Art." Woman's Art Journal 9, no. 1 (November 11, 1988): 3–9. https://doi.org/10.2307/1358356.
- Dronke, Ursula. The Poetic Edda. Oxford: Oxford University Press, 2011. Ewing, Thor. *Viking Clothing*. Gloucestershire: The History Press, 2012.
- Franquemont, Abby, and Anne Merrow. *Respect the Spindle: Spin Infinite Yarns with One Amazing Tool.* Penguin Random House, 2009.
- Fulk, R. D. "Anonymous Poems, Darraðarljóð." Skaldic Poetry of the Scandinavian Middle Ages. Skaldic Project; Brepols. Accessed January 3, 2022. https://skaldic.org/skaldic/m.php?p=text&i=1008.
- Hayeur Smith , Michèle. The Valkyries' Loom: The Archaeology of Cloth Production and Female Power in the North Atlantic. Gainesville, FL: University Press of Florida, 2020.
- Hayeur Smith, Michèle. "Textiles, Wool and Hair in Reykholt The Church Excavations," 2016. https://www.academia.edu/29561571/Textiles_Wool_and_Hair_in_Reykholt_The _Church_Excavations.
- Holck, Per. (2006). The Oseberg Ship Burial, Norway: New Thoughts On the Skeletons From the Grave Mound. European Journal of Archaeology. 9. 185-210. 10.1177/1461957107086123.

Johnson, K., Lennon, S.J. & Rudd, N. Dress, body and self: research in the social psychology of dress. *Fashion and Textiles* **1**, 20 (2014). https://doi.org/10.1186/s40691-014-0020-7

Jónas Kristjánsson. The Legendary Saga. Reykjavík, 1976.

The Lady & The Unicorn Lecture: Dr Elisabeth Taburet-Delahaye. Youtube.com, 2016. https://www.youtube.com/watch?v=sjqznyx6VkE&t=2374s.

Hermann, Pernille. Reflections on Old Norse Myths. Turnhout: Brepols, 2007.

- Huang, Angela Ling, and Carsten Jahnke. Textiles and the Medieval Economy Production, Trade, and Consumption of Textiles, 8th-16th Centuries. Oxford: Oxbow Books, 2019.
- Kershaw, Jane. "An Early Medieval Dual-Currency Economy: Bullion and Coin in the Danelaw." Antiquity 91, no. 355 (2017): 173–90. https://doi.org/10.15184/aqy.2016.249.
- Kershaw, Jane F., Gareth Williams, Søren M. Sindbæk, and James Graham-Campbell. Silver, Butter, Cloth: Monetary and Social Economies in the Viking Age. Oxford: Oxford University Press, 2019.
- Kershaw, Jane, and Stephen W. Merkel. "Silver Recycling in the Viking Age: Theoretical and Analytical Approaches." Archaeometry, 2021. https://doi.org/10.1111/arcm.12709.
- Lars Agnarsson, VolundR, ed. *Eyrbyggja Saga: Translation and Icelandic Text (Norse Sagas)*. Translated by William Morris and Eirikr Magnusson. CreateSpace Independent Publishing Platform, 2012.
- Lord, Peter Reeves., and Mansour H. Mohamed. Weaving: Conversion of Yarn to Fabric.

Oxford: Woodhead Publishing, 2010.

- Łucejko, Jeannette J., Marianne Vedeler, and Ilaria Degano. 2021. "Textile Dyes from Gokstad Viking Ship's Grave" *Heritage* 4, no. 3: 2278-2286. https://doi.org/10.3390/heritage4030129
- Magnús Magnússon, and Hermann Pálsson. Laxdæla Saga. London: Penguin Books, 1987.
- Martensson, Linda, Marie-Louise Nosch, and Eva Andersson Strand. "Shape of Things: Understanding a Loom Weight." *Oxford Journal of Archaeology* 28, no. 4 (2009): 373–98. https://doi.org/10.1111/j.1468-0092.2009.00334.x.
- Mitchell, Stephen A. Witchcraft and Magic in the Nordic Middle Ages. Philadelphia: University of Pennsylvania Press, 2011.

- Neave, Dorinda. "The Witch in Early 16th-Century German Art." Woman's Art Journal 9, no. 1 (1988): 3. https://doi.org/10.2307/1358356.
- Netherton, Robin, and Gale R. Owen-Crocker. *Medieval Clothing and Textiles 4*. Woodbridge: Boydell & Brewer, 2008.
- "Norns the Past, the Present, and the Future Norse Mythology." Nordic Culture, April 9, 2021. https://skjalden.com/norns/.
- Ornolfur Thorsson, ed. The Sagas of Icelanders: A Selection. 1st ed. Viking Adult, 2000.
- Oye, Ingvild. Tracing Textile Production from the Viking Age to the Middle Ages: Tools, Textiles, Texts and... Contexts. S.l.: Oxbow Books, 2022.
- Ólafur Halldórsson. Faereyinga Saga. Reykjavik: Stofnung Árna Magnússonar a Íslandi, 1987.
- "Research Programmes, Projects and Networks." Centre for Textile Research, 2021. https://ctr.hum.ku.dk/research-programmes-and-projects/.
- Roscoe, Jane Christine (1992) The literary significance of clothing in the Icelandic family sagas, Durham theses, Durham University. Available at Durham E-Theses Online: http://etheses.dur.ac.uk/5798/
- edited, introduced and annotated by Hermann Pálsson. Völuspá : The Sibyl's Prophecy. Edinburgh :Lockharton Press, 1996*Fóstbræðra Saga*. Reykjavík: Hljóðbókaklúbburinn, 1996.
- Paxson, Diana L. Odin: Ecstasy, Runes & amp; Norse Magic. Newburyport, MA: Weiser Books, 2017.
- Pilø, Lars, Espen Finstad, and James H. Barrett. "Crossing the Ice: an Iron Age to Medieval Mountain Pass at Lendbreen, Norway." Antiquity 94, no. 374 (2020): 437–54. doi:10.15184/aqy.2020.2.
- Pirenne, Henri. *Economic and Social History of Medieval Europe*. Martino Publishing, 2014.
- Postrel, Virginia. Fabric of Civilization: How Textiles Made the World. S.l.: Basic Books, 2021.
- Sawyer, Birgit L. "Women in Viking-Age Scandinavia, or, Who Were the 'Shieldmaidens'," 3003. https://www.academia.edu/12462598/Women_in_Viking-Age_Scandinavia_or_who_were_the_shieldmaidens_.
- Sawyer, Birgit, and Peter Sawyer. "Attitudes to the Vikings," 2002. https://www.academia.edu/12155406/Attitudes_to_the_Vikings.

- Sauckel, Anita. "Die Literarische Funktion Von Kleidung in Den Íslendingasögur Und Íslendingaþættir." Die Literarische Funktion Von Kleidung in Den Íslendingasögur Und Íslendingaþættir, 2013, 1–16. doi:10.1515/9783110330915.
- Schulman, Jana K. Jónsbók: The Laws of Later Iceland; the Icelandic Text According to MS AM 351 Fol. skálholtsbók Eldri. Saarbrücken: AQ-Verlag, 2010.
- Sherman, Heidi M. "The Flax and Linen of Medieval Novgorod." *Textiles and the Medieval Economy*, 2014, 104–12. https://doi.org/10.2307/j.ctvh1dm0t.10.
- Short, William Rhuel, and Óskarson Reynir A. *Men of Terror: A Comprehensive Analysis of Viking Combat.* Yardley, PA: Westholme Publishing, LLC, 2021.
- Skre, Dagfinn. "Money and Trade in Viking-Age Scandinavia," 2013. https://www.academia.edu/8007397/Money_and_trade_in_Viking_Age_Scandina via.
- Skre, Dagfinn. "Viking-Age Economic Transformations." Viking-Age Transformations, 2017, 1–27. https://doi.org/10.4324/9781315548197-1.
- St. Clair, Kassia Golden Thread: How Fabric Changed History. S.l.: Liverright Publishing Corp, 2018.
- Timár-Balázsy Ágnes, and Dinah Eastop. *Chemical Principles of Textile Conservation*. London: Routledge, 2020.
- Valdimar Ásmundarson. Flóamanna Saga. Reykjavík: S. Kristjánsson, 1898.
- Valdimar Ásmundarson. Kjalnesinga Saga. Reykjavik, 1902.
- Valdimar Ásmundarson. *Ljósvetninga Saga*. Reykjavík: S. Kristjánsson, 1896.
- Valdimar Ásmundarson. Saga Gísla súrssonar. Reykjavík: Kristjánsson, 1899.
- Vedeler, Marianne. Silk for the Vikings. Oxford: Oxbow Books, 2014.
- Vésteinn Ólason. Gisli Sursson's Saga: And, the Saga of the People of Eyri. London: Penguin, 2003.
- von Holstein, Isabella C., Penelope Walton Rogers, Oliver E. Craig, Kirsty E. Penkman, Jason Newton, and Matthew J. Collins. "Provenancing Archaeological Wool Textiles from Medieval Northern Europe by Light Stable Isotope Analysis (Δ13C, δ15n, δ2H)." PLOS ONE 11, no. 10 (2016). https://doi.org/10.1371/journal.pone.0162330.
- Walker, A. Manual of Needlework and Cutting Out. Blackie, 1926.

Þorleifur Jónsson. Eyrbyggja Saga. Akureyri: Björn Jónsson, 1882.

Warming, Rolf. "New Study Released: Shields and Hide." Web log. CombatArchaeology.org (blog). Society for Combat Archaeology, 2020. https://combatarchaeology.org/new-study-on-shields-and-hide/.

- Warming, Rolf, Luise Ørsted Brandt, Dorte Sommer, René Larsen, and Jet van Lanschot. "Shields and Hide – On the Use of Hide in Germanic Shields of the Iron Age and Viking Age." Bericht Der Römisch-Germanischen Kommission 97 (2020): 155–226. doi:10.11588/berrgk.2016.0.76641.
- Warming, Rolf. "Was Linen of Textile Used for Viking Shields? New Perspectives on Round Shield Constructions." Web log. CombatArchaeology.org (blog). Society for Combat Archaeology, 2018. https://combatarchaeology.org/was-linen-ortextile-used-for-viking-shields-new-perspectives-on-round-shield-constructions/.
- Wright, Monica L. Medieval Clothing and Textiles 11. Edited by Robin Netherton and Gale R. Owen-Crocker. NED-New edition. Boydell & Brewer, 2015. http://www.jstor.org/stable/10.7722/j.ctt12879fj.